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Cover Page

Order ID : Q3215

Project ID : 507 Franklin Ave Nutley

Client : Sciacca General Contractors, LLC

Lab Sample Number	Client Sample Number
Q3215-01	WASTE
Q3215-02	WASTE

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: 10/6/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside NJ 07092
Tel. 908-789-8900 Fax: 908-789-8922

DATA REPORTING QUALIFIERS- INORGANIC

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

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

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: **Q3215**

	Completed
For thorough review, the report must have the following:	
GENERAL:	
Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)	✓
Check chain-of-custody for proper relinquish/return of samples	✓
Is the chain of custody signed and complete	✓
Check internal chain-of-custody for proper relinquish/return of samples /sample extracts	✓
Collect information for each project id from server. Were all requirements followed	✓
COVER PAGE:	
Do numbers of samples correspond to the number of samples in the Chain of Custody on login page	✓
Do lab numbers and client Ids on cover page agree with the Chain of Custody	✓
CHAIN OF CUSTODY:	
Do requested analyses on Chain of Custody agree with form I results	✓
Do requested analyses on Chain of Custody agree with the log-in page	✓
Were the correct method log-in for analysis according to the Analytical Request and Chain of Castody	✓
Were the samples received within hold time	✓
Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle	✓
ANALYTICAL:	
Was method requirement followed?	✓
Was client requirement followed?	✓
Does the case narrative summarize all QC failure?	✓
All runlogs and manual integration are reviewed for requirements	✓
All manual calculations and /or hand notations verified	✓

QA Review Signature: **MAYUR DESAI** **Date:** **10/06/2025**

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LAB CHRONICLE

OrderID:	Q3215	**OrderDate:**	9/26/2025 8:43:00 AM
Client:	Sciacca General Contractors, LLC	**Project:**	507 Franklin Ave Nutley
Contact:	Rosanne Scirica	**Location:**	J41,VOA Lab

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q3215-01	**WASTE**	**SOIL**			**09/25/25**			**09/25/25**
			Mercury	7471B		09/29/25	09/30/25	
			Metals ICP-RCRA	6010D		09/29/25	09/30/25	

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Hit Summary Sheet
SW-846

SDG No.: Q3215 **Order ID:** Q3215

Client: Sciacca General Contractors, LLC **Project ID:** 507 Franklin Ave Nutley

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : WASTE								
Q3215-01	WASTE	SOIL	Arsenic	3.15		0.19	1.00	mg/Kg
Q3215-01	WASTE	SOIL	Barium	80.2		0.73	4.98	mg/Kg
Q3215-01	WASTE	SOIL	Chromium	14.3		0.047	0.50	mg/Kg
Q3215-01	WASTE	SOIL	Lead	83.6		0.13	0.60	mg/Kg
Q3215-01	WASTE	SOIL	Mercury	0.073		0.0080	0.014	mg/Kg
Q3215-01	WASTE	SOIL	Selenium	0.45	J	0.26	1.00	mg/Kg

SAMPLE DATA

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Report of Analysis

Client:	Sciacca General Contractors, LLC	Date Collected:	09/25/25
Project:	507 Franklin Ave Nutley	Date Received:	09/25/25
Client Sample ID:	WASTE	SDG No.:	Q3215
Lab Sample ID:	Q3215-01	Matrix:	SOIL
Level (low/med):	low	% Solid:	90.5

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-38-2	Arsenic	3.15		1	0.19	1.00	mg/Kg	09/29/25 10:20	09/30/25 17:23	6010D	SW3050
7440-39-3	Barium	80.2	*	1	0.73	4.98	mg/Kg	09/29/25 10:20	09/30/25 17:23	6010D	SW3050
7440-43-9	Cadmium	0.024	UN	1	0.024	0.30	mg/Kg	09/29/25 10:20	09/30/25 17:23	6010D	SW3050
7440-47-3	Chromium	14.3		1	0.047	0.50	mg/Kg	09/29/25 10:20	09/30/25 17:23	6010D	SW3050
7439-92-1	Lead	83.6	*	1	0.13	0.60	mg/Kg	09/29/25 10:20	09/30/25 17:23	6010D	SW3050
7439-97-6	Mercury	0.073		1	0.0080	0.014	mg/Kg	09/29/25 16:00	09/30/25 10:07	7471B	
7782-49-2	Selenium	0.45	J	1	0.26	1.00	mg/Kg	09/29/25 10:20	09/30/25 17:23	6010D	SW3050
7440-22-4	Silver	0.12	U	1	0.12	0.50	mg/Kg	09/29/25 10:20	09/30/25 17:23	6010D	SW3050

Color Before:	Brown	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	No
Comments:	METALS RCRA				

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

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

METAL CALIBRATION DATA

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Contract: SCIA01 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV51	Mercury	4.02	4.0	100	90 - 110	CV	09/30/2025	09:46	LB137359

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Contract: SCIA01 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV57	Mercury	5.03	5.0	101	90 - 110	CV	09/30/2025	09:51	LB137359
CCV58	Mercury	4.97	5.0	99	90 - 110	CV	09/30/2025	10:19	LB137359
CCV59	Mercury	5.02	5.0	100	90 - 110	CV	09/30/2025	10:52	LB137359
CCV60	Mercury	4.76	5.0	95	90 - 110	CV	09/30/2025	11:10	LB137359
CCV61	Mercury	4.92	5.0	98	90 - 110	CV	09/30/2025	11:35	LB137359

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Contract: SCIA01 **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	Arsenic	3950	4000	99	90 - 110	P	09/30/2025	13:16	LB137374
	Barium	7850	8000	98	90 - 110	P	09/30/2025	13:16	LB137374
	Cadmium	1960	2000	98	90 - 110	P	09/30/2025	13:16	LB137374
	Chromium	803	800	100	90 - 110	P	09/30/2025	13:16	LB137374
	Lead	3830	4000	96	90 - 110	P	09/30/2025	13:16	LB137374
	Selenium	3950	4000	99	90 - 110	P	09/30/2025	13:16	LB137374
	Silver	1070	1000	107	90 - 110	P	09/30/2025	13:16	LB137374

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Contract: SCIA01 **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	Arsenic	23.3	20.0	116	80 - 120	P	09/30/2025	13:22	LB137374
	Barium	104	100	104	80 - 120	P	09/30/2025	13:22	LB137374
	Cadmium	5.87	6.0	98	80 - 120	P	09/30/2025	13:22	LB137374
	Chromium	9.78	10.0	98	80 - 120	P	09/30/2025	13:22	LB137374
	Lead	11.0	12.0	91	80 - 120	P	09/30/2025	13:22	LB137374
	Selenium	24.0	20.0	120	80 - 120	P	09/30/2025	13:22	LB137374
	Silver	10.8	10.0	108	80 - 120	P	09/30/2025	13:22	LB137374

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Contract: SCIA01 **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	Arsenic	4910	5000	98	90 - 110	P	09/30/2025	14:08	LB137374
	Barium	9810	10000	98	90 - 110	P	09/30/2025	14:08	LB137374
	Cadmium	2430	2500	97	90 - 110	P	09/30/2025	14:08	LB137374
	Chromium	967	1000	97	90 - 110	P	09/30/2025	14:08	LB137374
	Lead	4850	5000	97	90 - 110	P	09/30/2025	14:08	LB137374
	Selenium	4920	5000	98	90 - 110	P	09/30/2025	14:08	LB137374
	Silver	1210	1250	97	90 - 110	P	09/30/2025	14:08	LB137374
CCV02	Arsenic	4980	5000	100	90 - 110	P	09/30/2025	15:41	LB137374
	Barium	9890	10000	99	90 - 110	P	09/30/2025	15:41	LB137374
	Cadmium	2460	2500	98	90 - 110	P	09/30/2025	15:41	LB137374
	Chromium	993	1000	99	90 - 110	P	09/30/2025	15:41	LB137374
	Lead	4890	5000	98	90 - 110	P	09/30/2025	15:41	LB137374
	Selenium	5040	5000	101	90 - 110	P	09/30/2025	15:41	LB137374
	Silver	1240	1250	99	90 - 110	P	09/30/2025	15:41	LB137374
CCV03	Arsenic	4990	5000	100	90 - 110	P	09/30/2025	16:43	LB137374
	Barium	9750	10000	98	90 - 110	P	09/30/2025	16:43	LB137374
	Cadmium	2460	2500	98	90 - 110	P	09/30/2025	16:43	LB137374
	Chromium	982	1000	98	90 - 110	P	09/30/2025	16:43	LB137374
	Lead	4890	5000	98	90 - 110	P	09/30/2025	16:43	LB137374
	Selenium	5050	5000	101	90 - 110	P	09/30/2025	16:43	LB137374
	Silver	1220	1250	98	90 - 110	P	09/30/2025	16:43	LB137374
CCV04	Arsenic	4960	5000	99	90 - 110	P	09/30/2025	17:39	LB137374
	Barium	9780	10000	98	90 - 110	P	09/30/2025	17:39	LB137374
	Cadmium	2450	2500	98	90 - 110	P	09/30/2025	17:39	LB137374
	Chromium	971	1000	97	90 - 110	P	09/30/2025	17:39	LB137374
	Lead	4870	5000	98	90 - 110	P	09/30/2025	17:39	LB137374
	Selenium	5030	5000	100	90 - 110	P	09/30/2025	17:39	LB137374
	Silver	1210	1250	97	90 - 110	P	09/30/2025	17:39	LB137374
CCV05	Arsenic	4920	5000	98	90 - 110	P	09/30/2025	18:55	LB137374
	Barium	9780	10000	98	90 - 110	P	09/30/2025	18:55	LB137374
	Cadmium	2430	2500	97	90 - 110	P	09/30/2025	18:55	LB137374
	Chromium	978	1000	98	90 - 110	P	09/30/2025	18:55	LB137374
	Lead	4840	5000	97	90 - 110	P	09/30/2025	18:55	LB137374
	Selenium	4950	5000	99	90 - 110	P	09/30/2025	18:55	LB137374

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Contract: SCIA01 **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
CCV05	Silver	1220	1250	98	90 - 110	P	09/30/2025	18:55	LB137374
CCV06	Arsenic	5020	5000	100	90 - 110	P	09/30/2025	19:45	LB137374
	Barium	9870	10000	99	90 - 110	P	09/30/2025	19:45	LB137374
	Cadmium	2470	2500	99	90 - 110	P	09/30/2025	19:45	LB137374
	Chromium	973	1000	97	90 - 110	P	09/30/2025	19:45	LB137374
	Lead	4930	5000	99	90 - 110	P	09/30/2025	19:45	LB137374
	Selenium	5050	5000	101	90 - 110	P	09/30/2025	19:45	LB137374
	Silver	1220	1250	97	90 - 110	P	09/30/2025	19:45	LB137374
CCV07	Arsenic	4880	5000	98	90 - 110	P	09/30/2025	20:35	LB137374
	Barium	9810	10000	98	90 - 110	P	09/30/2025	20:35	LB137374
	Cadmium	2420	2500	97	90 - 110	P	09/30/2025	20:35	LB137374
	Chromium	973	1000	97	90 - 110	P	09/30/2025	20:35	LB137374
	Lead	4820	5000	96	90 - 110	P	09/30/2025	20:35	LB137374
	Selenium	4930	5000	99	90 - 110	P	09/30/2025	20:35	LB137374
	Silver	1210	1250	97	90 - 110	P	09/30/2025	20:35	LB137374
CCV08	Arsenic	5020	5000	100	90 - 110	P	09/30/2025	21:25	LB137374
	Barium	9950	10000	100	90 - 110	P	09/30/2025	21:25	LB137374
	Cadmium	2480	2500	99	90 - 110	P	09/30/2025	21:25	LB137374
	Chromium	997	1000	100	90 - 110	P	09/30/2025	21:25	LB137374
	Lead	4950	5000	99	90 - 110	P	09/30/2025	21:25	LB137374
	Selenium	5080	5000	102	90 - 110	P	09/30/2025	21:25	LB137374
	Silver	1240	1250	99	90 - 110	P	09/30/2025	21:25	LB137374
CCV09	Arsenic	4940	5000	99	90 - 110	P	09/30/2025	22:14	LB137374
	Barium	9960	10000	100	90 - 110	P	09/30/2025	22:14	LB137374
	Cadmium	2430	2500	97	90 - 110	P	09/30/2025	22:14	LB137374
	Chromium	985	1000	98	90 - 110	P	09/30/2025	22:14	LB137374
	Lead	4860	5000	97	90 - 110	P	09/30/2025	22:14	LB137374
	Selenium	4970	5000	99	90 - 110	P	09/30/2025	22:14	LB137374
	Silver	1240	1250	99	90 - 110	P	09/30/2025	22:14	LB137374
CCV10	Arsenic	5080	5000	102	90 - 110	P	09/30/2025	23:00	LB137374
	Barium	10100	10000	101	90 - 110	P	09/30/2025	23:00	LB137374
	Cadmium	2510	2500	100	90 - 110	P	09/30/2025	23:00	LB137374
	Chromium	994	1000	99	90 - 110	P	09/30/2025	23:00	LB137374
	Lead	5000	5000	100	90 - 110	P	09/30/2025	23:00	LB137374

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Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Contract: SCIA01 **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
CCV10	Selenium	5130	5000	102	90 - 110	P	09/30/2025	23:00	LB137374
	Silver	1250	1250	100	90 - 110	P	09/30/2025	23:00	LB137374

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Metals

- 2b -
CRDL STANDARD FOR AA & ICP

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Contract: SCIA01 **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
CRA	Mercury	0.17	0.2	83	70 - 130	CV	09/30/2025	09:55	LB137359
CRI01	Arsenic	22.3	20.0	112	65 - 135	P	09/30/2025	13:39	LB137374
	Barium	101	100	101	65 - 135	P	09/30/2025	13:39	LB137374
	Cadmium	5.81	6.0	97	65 - 135	P	09/30/2025	13:39	LB137374
	Chromium	9.66	10.0	97	65 - 135	P	09/30/2025	13:39	LB137374
	Lead	13.3	12.0	111	65 - 135	P	09/30/2025	13:39	LB137374
	Selenium	22.6	20.0	113	65 - 135	P	09/30/2025	13:39	LB137374
	Silver	10.1	10.0	101	65 - 135	P	09/30/2025	13:39	LB137374

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Fax : 908 789 8922

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Contract: SCIA01 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB51	Mercury	0.076	+/-0.2	U	0.20	CV	09/30/2025	09:49	LB137359

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Contract: SCIA01 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB57	Mercury	0.076	+/-0.2	U	0.20	CV	09/30/2025	09:53	LB137359
CCB58	Mercury	0.076	+/-0.2	U	0.20	CV	09/30/2025	10:21	LB137359
CCB59	Mercury	0.076	+/-0.2	U	0.20	CV	09/30/2025	10:54	LB137359
CCB60	Mercury	0.076	+/-0.2	U	0.20	CV	09/30/2025	11:13	LB137359
CCB61	Mercury	0.076	+/-0.2	U	0.20	CV	09/30/2025	11:40	LB137359

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Contract: SCIA01 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Arsenic	5.12	+/-10	U	20.0	P	09/30/2025	13:32	LB137374
	Barium	14.6	+/-50	U	100	P	09/30/2025	13:32	LB137374
	Cadmium	0.50	+/-3	U	6.00	P	09/30/2025	13:32	LB137374
	Chromium	2.12	+/-5	U	10.0	P	09/30/2025	13:32	LB137374
	Lead	2.30	+/-6	U	12.0	P	09/30/2025	13:32	LB137374
	Selenium	9.64	+/-10	U	20.0	P	09/30/2025	13:32	LB137374
	Silver	1.62	+/-5	U	10.0	P	09/30/2025	13:32	LB137374

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Contract: SCIA01 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Arsenic	5.12	+/-10	U	20.0	P	09/30/2025	14:18	LB137374
	Barium	14.6	+/-50	U	100	P	09/30/2025	14:18	LB137374
	Cadmium	0.50	+/-3	U	6.00	P	09/30/2025	14:18	LB137374
	Chromium	2.12	+/-5	U	10.0	P	09/30/2025	14:18	LB137374
	Lead	2.30	+/-6	U	12.0	P	09/30/2025	14:18	LB137374
	Selenium	9.64	+/-10	U	20.0	P	09/30/2025	14:18	LB137374
	Silver	1.62	+/-5	U	10.0	P	09/30/2025	14:18	LB137374
CCB02	Arsenic	5.12	+/-10	U	20.0	P	09/30/2025	15:50	LB137374
	Barium	14.6	+/-50	U	100	P	09/30/2025	15:50	LB137374
	Cadmium	0.50	+/-3	U	6.00	P	09/30/2025	15:50	LB137374
	Chromium	2.12	+/-5	U	10.0	P	09/30/2025	15:50	LB137374
	Lead	2.30	+/-6	U	12.0	P	09/30/2025	15:50	LB137374
	Selenium	9.64	+/-10	U	20.0	P	09/30/2025	15:50	LB137374
	Silver	1.62	+/-5	U	10.0	P	09/30/2025	15:50	LB137374
CCB03	Arsenic	5.12	+/-10	U	20.0	P	09/30/2025	16:53	LB137374
	Barium	14.6	+/-50	U	100	P	09/30/2025	16:53	LB137374
	Cadmium	0.50	+/-3	U	6.00	P	09/30/2025	16:53	LB137374
	Chromium	2.12	+/-5	U	10.0	P	09/30/2025	16:53	LB137374
	Lead	2.30	+/-6	U	12.0	P	09/30/2025	16:53	LB137374
	Selenium	9.64	+/-10	U	20.0	P	09/30/2025	16:53	LB137374
	Silver	1.62	+/-5	U	10.0	P	09/30/2025	16:53	LB137374
CCB04	Arsenic	5.12	+/-10	U	20.0	P	09/30/2025	17:43	LB137374
	Barium	14.6	+/-50	U	100	P	09/30/2025	17:43	LB137374
	Cadmium	0.50	+/-3	U	6.00	P	09/30/2025	17:43	LB137374
	Chromium	2.12	+/-5	U	10.0	P	09/30/2025	17:43	LB137374
	Lead	2.30	+/-6	U	12.0	P	09/30/2025	17:43	LB137374
	Selenium	9.64	+/-10	U	20.0	P	09/30/2025	17:43	LB137374
	Silver	1.62	+/-5	U	10.0	P	09/30/2025	17:43	LB137374
CCB05	Arsenic	5.12	+/-10	U	20.0	P	09/30/2025	18:59	LB137374
	Barium	14.6	+/-50	U	100	P	09/30/2025	18:59	LB137374
	Cadmium	0.50	+/-3	U	6.00	P	09/30/2025	18:59	LB137374
	Chromium	2.12	+/-5	U	10.0	P	09/30/2025	18:59	LB137374
	Lead	2.30	+/-6	U	12.0	P	09/30/2025	18:59	LB137374
	Selenium	9.64	+/-10	U	20.0	P	09/30/2025	18:59	LB137374
	Silver	1.62	+/-5	U	10.0	P	09/30/2025	18:59	LB137374
CCB06	Arsenic	5.12	+/-10	U	20.0	P	09/30/2025	19:49	LB137374
	Barium	14.6	+/-50	U	100	P	09/30/2025	19:49	LB137374
	Cadmium	0.50	+/-3	U	6.00	P	09/30/2025	19:49	LB137374
	Chromium	2.12	+/-5	U	10.0	P	09/30/2025	19:49	LB137374

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Contract: SCIA01 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Lead	2.30	+/-6	U	12.0	P	09/30/2025	19:49	LB137374
	Selenium	9.64	+/-10	U	20.0	P	09/30/2025	19:49	LB137374
	Silver	1.62	+/-5	U	10.0	P	09/30/2025	19:49	LB137374
CCB07	Arsenic	5.12	+/-10	U	20.0	P	09/30/2025	20:39	LB137374
	Barium	14.6	+/-50	U	100	P	09/30/2025	20:39	LB137374
	Cadmium	0.50	+/-3	U	6.00	P	09/30/2025	20:39	LB137374
	Chromium	2.12	+/-5	U	10.0	P	09/30/2025	20:39	LB137374
	Lead	2.30	+/-6	U	12.0	P	09/30/2025	20:39	LB137374
	Selenium	9.64	+/-10	U	20.0	P	09/30/2025	20:39	LB137374
	Silver	1.62	+/-5	U	10.0	P	09/30/2025	20:39	LB137374
CCB08	Arsenic	5.12	+/-10	U	20.0	P	09/30/2025	21:29	LB137374
	Barium	14.6	+/-50	U	100	P	09/30/2025	21:29	LB137374
	Cadmium	0.50	+/-3	U	6.00	P	09/30/2025	21:29	LB137374
	Chromium	2.12	+/-5	U	10.0	P	09/30/2025	21:29	LB137374
	Lead	2.30	+/-6	U	12.0	P	09/30/2025	21:29	LB137374
	Selenium	9.64	+/-10	U	20.0	P	09/30/2025	21:29	LB137374
	Silver	1.62	+/-5	U	10.0	P	09/30/2025	21:29	LB137374
CCB09	Arsenic	5.12	+/-10	U	20.0	P	09/30/2025	22:18	LB137374
	Barium	14.6	+/-50	U	100	P	09/30/2025	22:18	LB137374
	Cadmium	0.50	+/-3	U	6.00	P	09/30/2025	22:18	LB137374
	Chromium	2.12	+/-5	U	10.0	P	09/30/2025	22:18	LB137374
	Lead	2.30	+/-6	U	12.0	P	09/30/2025	22:18	LB137374
	Selenium	9.64	+/-10	U	20.0	P	09/30/2025	22:18	LB137374
	Silver	1.62	+/-5	U	10.0	P	09/30/2025	22:18	LB137374
CCB10	Arsenic	5.12	+/-10	U	20.0	P	09/30/2025	23:04	LB137374
	Barium	14.6	+/-50	U	100	P	09/30/2025	23:04	LB137374
	Cadmium	0.50	+/-3	U	6.00	P	09/30/2025	23:04	LB137374
	Chromium	2.12	+/-5	U	10.0	P	09/30/2025	23:04	LB137374
	Lead	2.30	+/-6	U	12.0	P	09/30/2025	23:04	LB137374
	Selenium	9.64	+/-10	U	20.0	P	09/30/2025	23:04	LB137374
	Silver	1.62	+/-5	U	10.0	P	09/30/2025	23:04	LB137374

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Metals
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PREPARATION BLANK SUMMARY

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Instrument: CV1

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB169897BL		**SOLID**		**Batch Number:**	**PB169897**		**Prep Date:**	**09/29/2025**	
	Mercury	0.0080	<0.013	U	0.013	CV	09/30/2025	10:02	LB137359

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Metals
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PREPARATION BLANK SUMMARY

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Instrument: P4

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB169892BL		**SOLID**		**Batch Number:**	**PB169892**		**Prep Date:**	**09/29/2025**	
	Arsenic	0.19	<0.5	U	1.00	P	09/30/2025	17:14	LB137374
	Barium	0.73	<2.5	U	5.00	P	09/30/2025	17:14	LB137374
	Cadmium	0.024	<0.15	U	0.30	P	09/30/2025	17:14	LB137374
	Chromium	0.047	<0.25	U	0.50	P	09/30/2025	17:14	LB137374
	Lead	0.13	<0.3	U	0.60	P	09/30/2025	17:14	LB137374
	Selenium	0.26	<0.5	U	1.00	P	09/30/2025	17:14	LB137374
	Silver	0.12	<0.25	U	0.50	P	09/30/2025	17:14	LB137374

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Metals
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INTERFERENCE CHECK SAMPLE

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Contract: SCIA01 **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	Arsenic	5.01			-20	20	09/30/2025	13:44	LB137374
	Barium	7.63	6.0	127	-94	106	09/30/2025	13:44	LB137374
	Cadmium	-2.07	1.0	207	-5	7	09/30/2025	13:44	LB137374
	Chromium	49.0	52.0	94	42	62	09/30/2025	13:44	LB137374
	Lead	-6.58			-12	12	09/30/2025	13:44	LB137374
	Selenium	5.44			-20	20	09/30/2025	13:44	LB137374
	Silver	-0.092			-10	10	09/30/2025	13:44	LB137374
ICSAB01	Arsenic	111	104	107	88.4	120	09/30/2025	13:56	LB137374
	Barium	496	537	92	437	637	09/30/2025	13:56	LB137374
	Cadmium	980	972	101	826	1120	09/30/2025	13:56	LB137374
	Chromium	550	542	102	460	624	09/30/2025	13:56	LB137374
	Lead	38.9	49.0	79	37	61	09/30/2025	13:56	LB137374
	Selenium	56.7	46.0	123	26	66	09/30/2025	13:56	LB137374
	Silver	206	201	102	170	232	09/30/2025	13:56	LB137374

METAL
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metals
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MATRIX SPIKE SUMMARY

client: Sciacca General Contractors, LLC **level:** low **sdg no.:** Q3215

contract: SCIA01 **lab code:** ACE

matrix: Solid **sample id:** Q3231-01 **client id:** WC-1MS

Percent Solids for Sample: 84.4 **Spiked ID:** Q3231-01MS **Percent Solids for Spike Sample:** 84.4

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/Kg	75 - 125	40.6		4.22		43.1	84		P
Barium	mg/Kg	75 - 125	76.0		50.6		10.8	235		P
Cadmium	mg/Kg	75 - 125	10.6		3.59		10.8	64	N	P
Chromium	mg/Kg	75 - 125	27.0		6.48		21.5	96		P
Lead	mg/Kg	75 - 125	1310		232		53.9	2009		P
Mercury	mg/Kg	80 - 120	1.73	D	1.34	D	0.29	136		CV
Selenium	mg/Kg	75 - 125	92.1		0.28	J	110	83		P
Silver	mg/Kg	75 - 125	3.70		0.51	U	4.0	92		P

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: Sciacca General Contractors, LLC **level:** low **sdg no.:** Q3215

contract: SCIA01 **lab code:** ACE

matrix: Solid **sample id:** Q3231-01 **client id:** WC-1MSD

Percent Solids for Sample: 84.4 **Spiked ID:** Q3231-01MSD **Percent Solids for Spike Sample:** 84.4

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	mg/Kg	75 - 125	39.1		4.22		41.9	83		P
Barium	mg/Kg	75 - 125	44.1		50.6		10.5	-61		P
Cadmium	mg/Kg	75 - 125	10.2		3.59		10.5	63	N	P
Chromium	mg/Kg	75 - 125	25.2		6.48		21.0	89		P
Lead	mg/Kg	75 - 125	192		232		52.4	-75		P
Mercury	mg/Kg	80 - 120	1.71	D	1.34	D	0.29	128		CV
Selenium	mg/Kg	75 - 125	88.9		0.28	J	100	89		P
Silver	mg/Kg	75 - 125	3.42		0.51	U	3.9	88		P

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Metals
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POST DIGEST SPIKE SUMMARY

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Contract: SCIA01 **Lab Code:** ACE

Matrix: Solid **Level:** LOW **Client ID:** WC-1A

Sample ID: Q3231-01 **Spiked ID:** Q3231-01A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Cadmium	mg/Kg	75 - 125	11.1		3.59		10.2	73	N	P

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: Sciacca General Contractors, LLC **Level:** LOW **SDG No.:** Q3215

Contract: SCIA01 **Lab Code:** ACE

Matrix: Solid **Sample ID:** Q3231-01 **Client ID:** WC-1DUP

Percent Solids for Sample: 84.4 **Duplicate ID** Q3231-01DUP **Percent Solids for Spike Sample:** 84.4

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/Kg	20	4.22		4.21		0		P
Barium	mg/Kg	20	50.6		50.8		0		P
Cadmium	mg/Kg	20	3.59		3.66		2		P
Chromium	mg/Kg	20	6.48		6.54		1		P
Lead	mg/Kg	20	232		230		1		P
Mercury	mg/Kg	20	1.34	D	1.31	D	2		CV
Selenium	mg/Kg	20	0.28	J	0.34	J	21		P
Silver	mg/Kg	20	0.51	U	0.52	U			P

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

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: Sciacca General Contractors, LLC **Level:** LOW **SDG No.:** Q3215

Contract: SCIA01 **Lab Code:** ACE

Matrix: Solid **Sample ID:** Q3231-01MS **Client ID:** WC-1MSD

Percent Solids for Sample: 84.4 **Duplicate ID** Q3231-01MSD **Percent Solids for Spike Sample:** 84.4

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	mg/Kg	20	40.6		39.1		4		P
Barium	mg/Kg	20	76.0		44.1		53	*	P
Cadmium	mg/Kg	20	10.6		10.2		4		P
Chromium	mg/Kg	20	27.0		25.2		7		P
Lead	mg/Kg	20	1310		192		149	*	P
Mercury	mg/Kg	20	1.73	D	1.71	D	1		CV
Selenium	mg/Kg	20	92.1		88.9		4		P
Silver	mg/Kg	20	3.70		3.42		8		P

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

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LABORATORY CONTROL SAMPLE SUMMARY

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Contract: SCIA01 **Lab Code:** ACE

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB169892BS							
Arsenic	mg/Kg	40.0	34.2		86	80 - 120	P
Barium	mg/Kg	10.0	8.42		84	80 - 120	P
Cadmium	mg/Kg	10.0	8.24		82	80 - 120	P
Chromium	mg/Kg	20.0	16.9		84	80 - 120	P
Lead	mg/Kg	50.0	41.1		82	80 - 120	P
Selenium	mg/Kg	100	88.7		89	80 - 120	P
Silver	mg/Kg	3.8	3.28		86	80 - 120	P

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LABORATORY CONTROL SAMPLE SUMMARY

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Contract: SCIA01 **Lab Code:** ACE

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB169897BS							
Mercury	mg/Kg	0.25	0.27		106	80 - 120	CV

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

WC-1L

Lab Name: Alliance **Contract:** SCIA01

Lab Code: ACE **Lb No.:** lb137374 **Lab Sample ID :** Q3231-01L **SDG No.:** Q3215

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

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	4.22		4.06	J	4		P
Barium	50.6		58.6		16		P
Cadmium	3.59		3.79		6		P
Chromium	6.48		7.48		15		P
Lead	232		242		4		P
Mercury	1.33	OR	1.53		14		CV
Selenium	0.28	J	5.11	U	100.0		P
Silver	0.51	U	2.55	U			P

METAL PREPARATION & INSTRUMENT DATA

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Contract: SCIA01 **Lab Code:** ACE

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Al	Ca	Fe	Mg	Ag
Arsenic	193.759	0.0000000	0.0000000	-0.0000440	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000930	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0000920	0.0000000	0.0000380	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	-0.0001440	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	-0.0001490	0.0000000	0.0000000

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Contract: SCIA01 **Lab Code:** ACE

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: As	Ba	Be	Cd	Co
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0002870
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0003170	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	-0.0003570
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Contract: SCIA01 **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
Arsenic	193.759	-0.0029000	0.0000000	0.0000000	0.0000000	0.0004900
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000070	0.0002200	0.0000000
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0001400	-0.0008600
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0007460	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	-0.0000120

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Contract: SCIA01 **Lab Code:** ACE

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Na	Ni	Pb	Sb	Se
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0006580	0.0000000	0.0000000	0.0001290
Selenium	196.090	0.0000000	0.0000000	0.0003330	0.0000000	0.0000000
Silver	328.068	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Contract: SCIA01 **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
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000630	0.0001280	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0001110	0.0000000
Lead	220.353	0.0000000	-0.0003610	0.0000000	0.0000000	0.0000000
Selenium	196.090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.068	0.0000000	-0.0007420	0.0000000	0.0000000	0.0000000

METAL PREPARATION & ANALYICAL SUMMARY

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

Metals
- 13 -
SAMPLE PREPARATION SUMMARY

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Contract: SCIA01 **Lab Code:** ACE **Method:**

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB169892**						
PB169892BL	PB169892BL	MB	SOLID	09/29/2025	2.00	100.0	100.00
PB169892BS	PB169892BS	LCS	SOLID	09/29/2025	2.00	100.0	100.00
Q3215-01	WASTE	SAM	SOLID	09/29/2025	2.22	100.0	90.50
Q3231-01DUP	WC-1DUP	DUP	SOLID	09/29/2025	2.30	100.0	84.40
Q3231-01MS	WC-1MS	MS	SOLID	09/29/2025	2.20	100.0	84.40
Q3231-01MSD	WC-1MSD	MSD	SOLID	09/29/2025	2.26	100.0	84.40

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Fax : 908 789 8922

Metals
- 13 -
SAMPLE PREPARATION SUMMARY

Client: Sciacca General Contractors, LLC **SDG No.:** Q3215

Contract: SCIA01 **Lab Code:** ACE **Method:**

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB169897**						
PB169897BL	PB169897BL	MB	SOLID	09/29/2025	0.52	35.0	100.00
PB169897BS	PB169897BS	LCS	SOLID	09/29/2025	0.57	35.0	100.00
Q3215-01	WASTE	SAM	SOLID	09/29/2025	0.54	35.0	90.50
Q3231-01DUP	WC-1DUP	DUP	SOLID	09/29/2025	0.56	35.0	84.40
Q3231-01MS	WC-1MS	MS	SOLID	09/29/2025	0.58	35.0	84.40
Q3231-01MSD	WC-1MSD	MSD	SOLID	09/29/2025	0.57	35.0	84.40

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metals
- 14 -
ANALYSIS RUN LOG

Client: Sciacca General Contractors, LLC **Contract:** SCIA01

Lab code: ACE **Sdg no.:** Q3215

Instrument id number: **Method:** **Run number:** LB137359

Start date: 09/30/2025 **End date:** 09/30/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	0932	HG
S0.2	S0.2	1	0934	HG
S2.5	S2.5	1	0936	HG
S5	S5	1	0939	HG
S7.5	S7.5	1	0941	HG
S10	S10	1	0943	HG
ICV51	ICV51	1	0946	HG
ICB51	ICB51	1	0949	HG
CCV57	CCV57	1	0951	HG
CCB57	CCB57	1	0953	HG
CRA	CRA	1	0955	HG
PB169897BL	PB169897BL	1	1002	HG
PB169897BS	PB169897BS	1	1005	HG
Q3215-01	WASTE	1	1007	HG
CCV58	CCV58	1	1019	HG
CCB58	CCB58	1	1021	HG
CCV59	CCV59	1	1052	HG
CCB59	CCB59	1	1054	HG
Q3231-01L	WC-1L	5	1106	HG
CCV60	CCV60	1	1110	HG
CCB60	CCB60	1	1113	HG
Q3231-01DUP	WC-1DUP	5	1118	HG
Q3231-01MS	WC-1MS	5	1120	HG
Q3231-01MSD	WC-1MSD	5	1122	HG
CCV61	CCV61	1	1135	HG
CCB61	CCB61	1	1140	HG

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metals
- 14 -
ANALYSIS RUN LOG

Client: Sciacca General Contractors, LLC **Contract:** SCIA01

Lab code: ACE **Sdg no.:** Q3215

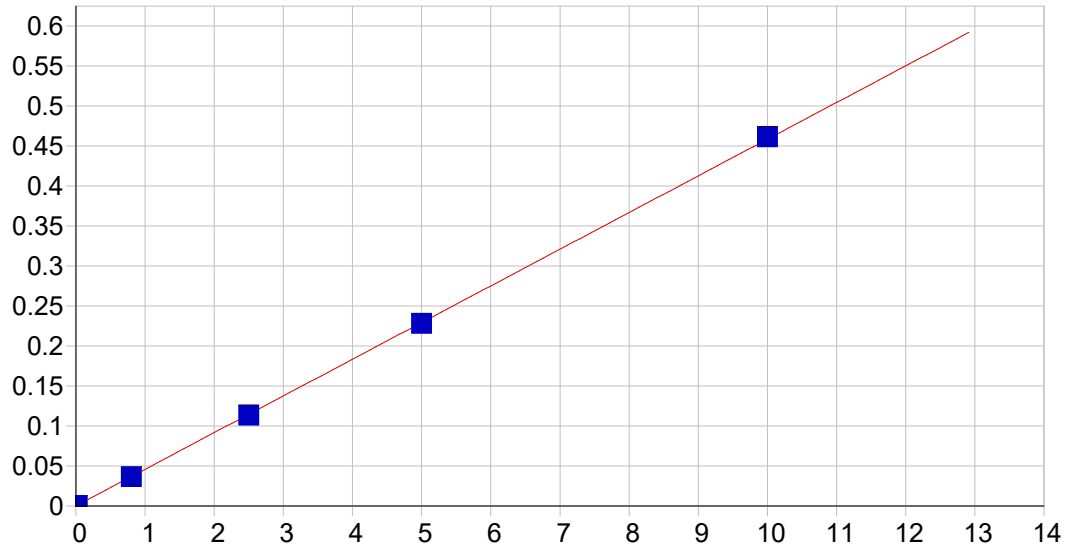
Instrument id number: **Method:** **Run number:** LB137374

Start date: 09/30/2025 **End date:** 09/30/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1251	Ag,As,Ba,Cd,Cr,Pb,Se
S1	S1	1	1256	Ag,As,Ba,Cd,Cr,Pb,Se
S2	S2	1	1300	Ag,As,Ba,Cd,Cr,Pb,Se
S3	S3	1	1304	Ag,As,Ba,Cd,Cr,Pb,Se
S4	S4	1	1308	Ag,As,Ba,Cd,Cr,Pb,Se
S5	S5	1	1312	Ag,As,Ba,Cd,Cr,Pb,Se
ICV01	ICV01	1	1316	Ag,As,Ba,Cd,Cr,Pb,Se
LLICV01	LLICV01	1	1322	Ag,As,Ba,Cd,Cr,Pb,Se
ICB01	ICB01	1	1332	Ag,As,Ba,Cd,Cr,Pb,Se
CRI01	CRI01	1	1339	Ag,As,Ba,Cd,Cr,Pb,Se
ICSA01	ICSA01	1	1344	Ag,As,Ba,Cd,Cr,Pb,Se
ICSAB01	ICSAB01	1	1356	Ag,As,Ba,Cd,Cr,Pb,Se
CCV01	CCV01	1	1408	Ag,As,Ba,Cd,Cr,Pb,Se
CCB01	CCB01	1	1418	Ag,As,Ba,Cd,Cr,Pb,Se
CCV02	CCV02	1	1541	Ag,As,Ba,Cd,Cr,Pb,Se
CCB02	CCB02	1	1550	Ag,As,Ba,Cd,Cr,Pb,Se
CCV03	CCV03	1	1643	Ag,As,Ba,Cd,Cr,Pb,Se
CCB03	CCB03	1	1653	Ag,As,Ba,Cd,Cr,Pb,Se
PB169892BL	PB169892BL	1	1714	Ag,As,Ba,Cd,Cr,Pb,Se
PB169892BS	PB169892BS	1	1719	Ag,As,Ba,Cd,Cr,Pb,Se
Q3215-01	WASTE	1	1723	Ag,As,Ba,Cd,Cr,Pb,Se
CCV04	CCV04	1	1739	Ag,As,Ba,Cd,Cr,Pb,Se
CCB04	CCB04	1	1743	Ag,As,Ba,Cd,Cr,Pb,Se
Q3231-01L	WC-1L	5	1759	Ag,As,Ba,Cd,Cr,Pb,Se
Q3231-01MS	WC-1MS	1	1803	Ag,As,Ba,Cd,Cr,Pb,Se
Q3231-01DUP	WC-1DUP	1	1811	Ag,As,Ba,Cd,Cr,Pb,Se
Q3231-01MSD	WC-1MSD	1	1815	Ag,As,Ba,Cd,Cr,Pb,Se
Q3231-01A	WC-1A	1	1819	Cd
CCV05	CCV05	1	1855	Ag,As,Ba,Cd,Cr,Pb,Se
CCB05	CCB05	1	1859	Ag,As,Ba,Cd,Cr,Pb,Se
CCV06	CCV06	1	1945	Ag,As,Ba,Cd,Cr,Pb,Se
CCB06	CCB06	1	1949	Ag,As,Ba,Cd,Cr,Pb,Se
CCV07	CCV07	1	2035	Ag,As,Ba,Cd,Cr,Pb,Se
CCB07	CCB07	1	2039	Ag,As,Ba,Cd,Cr,Pb,Se
CCV08	CCV08	1	2125	Ag,As,Ba,Cd,Cr,Pb,Se
CCB08	CCB08	1	2129	Ag,As,Ba,Cd,Cr,Pb,Se
CCV09	CCV09	1	2214	Ag,As,Ba,Cd,Cr,Pb,Se
CCB09	CCB09	1	2218	Ag,As,Ba,Cd,Cr,Pb,Se
CCV10	CCV10	1	2300	Ag,As,Ba,Cd,Cr,Pb,Se
CCB10	CCB10	1	2304	Ag,As,Ba,Cd,Cr,Pb,Se

METAL
RAW DATA

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



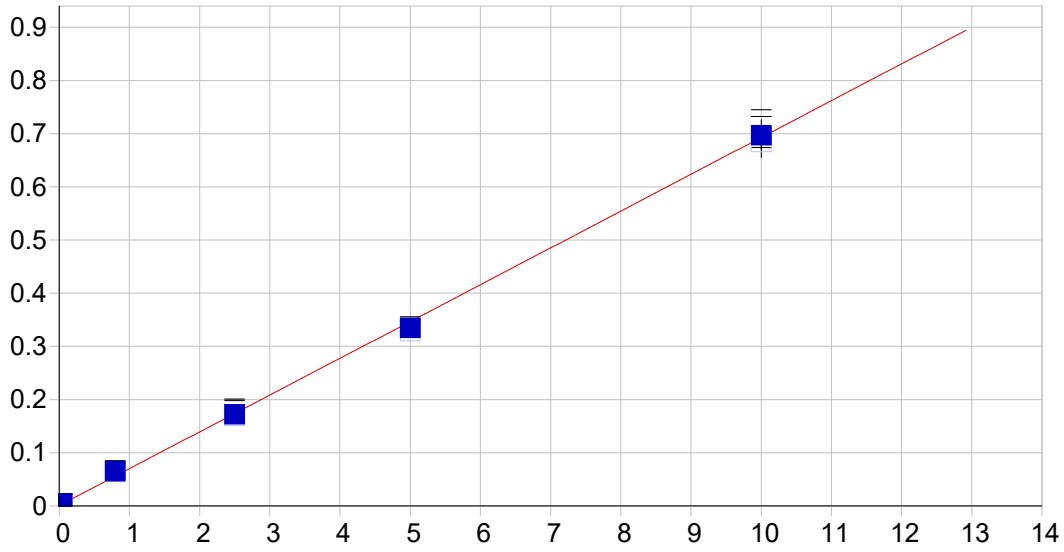
As 189.042 {479}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000086	Re-Slope:	1.000000
A1 (Gain):	0.045852	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999974	Status:	OK.
Std Error of Est:	0.000008		
Predicted MDL:	0.002893		
Predicted MQL:	0.009643		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00009	.000	1
S1	.02000	.01998	-.000	-.080	.00100	.000	1
S3	2.5000	2.4705	-.030	-1.18	.11324	.000	1
S4	5.0000	4.9706	-.029	-.587	.22776	.000	1
S5	10.000	10.064	.064	.641	.46107	.000	1
S2	.80000	.79483	-.005	-.646	.03649	.000	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



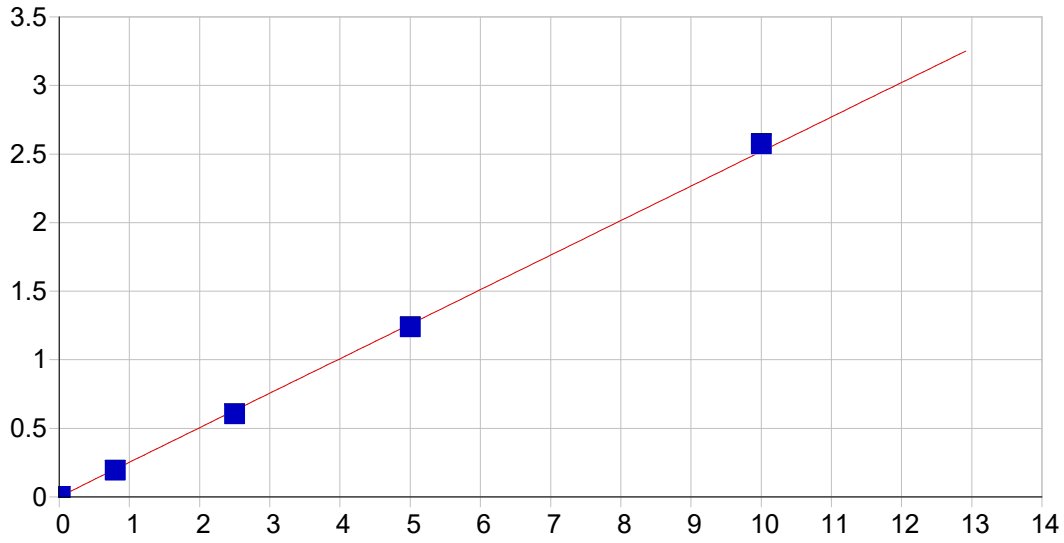
Tl 190.856 {477}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000728	Re-Slope:	1.000000
A1 (Gain):	0.069207	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999223	Status:	OK.
Std Error of Est:	0.000089		
Predicted MDL:	0.002513		
Predicted MQL:	0.008375		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00073	.000	1
S1	.04000	.04760	.008	19.0	.00385	.000	1
S3	2.5000	2.4797	-.020	-.812	.16919	.010	1
S4	5.0000	4.8266	-.173	-3.47	.32845	.003	1
S5	10.000	10.062	.062	.616	.68444	.029	1
S2	.80000	.92482	.125	15.6	.06372	.002	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



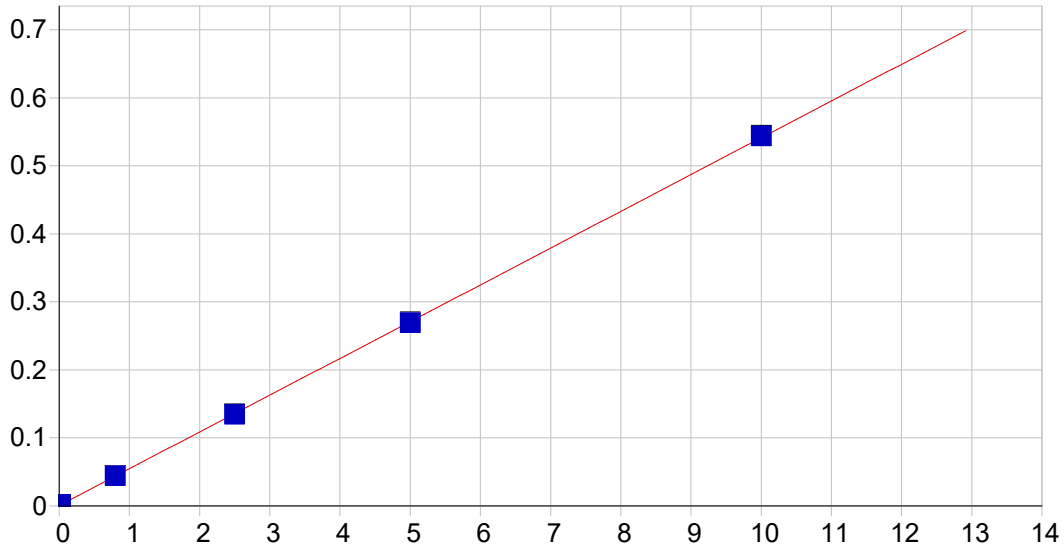
Pb 220.353 {453}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001003	Re-Slope:	1.000000
A1 (Gain):	0.251707	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999683	Status:	OK.
Std Error of Est:	0.000115		
Predicted MDL:	0.001445		
Predicted MQL:	0.004816		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00100	.000	1
S1	.01200	.01122	-.001	-6.54	.00377	.000	1
S3	2.5000	2.4013	-.099	-3.95	.60474	.001	1
S4	5.0000	4.9159	-.084	-1.68	1.2370	.002	1
S5	10.000	10.218	.218	2.18	2.5701	.003	1
S2	.80000	.76572	-.034	-4.29	.19352	.000	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



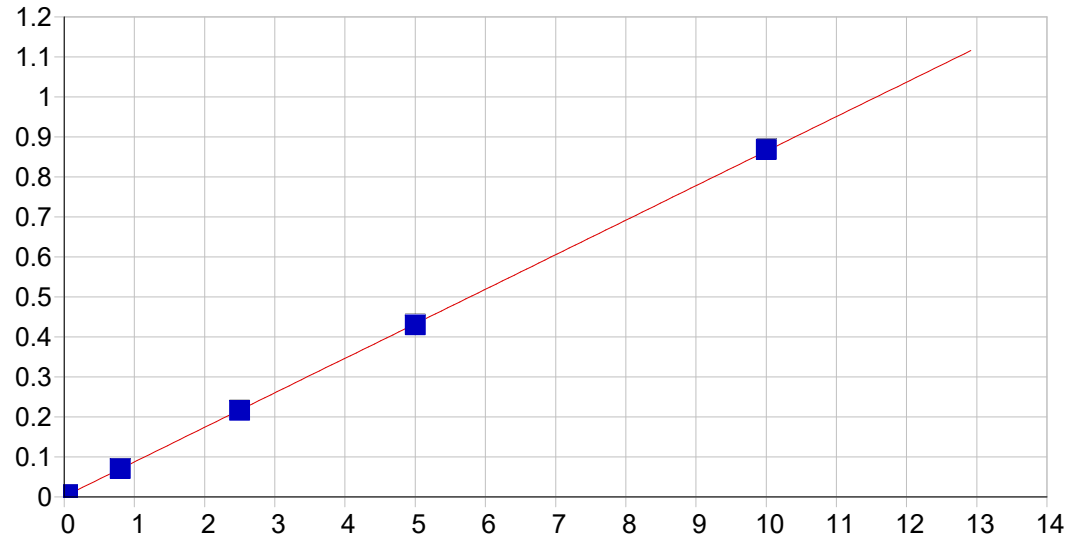
Se 196.090 {472}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000611	Re-Slope:	1.000000
A1 (Gain):	0.054065	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999977	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	0.003652		
Predicted MQL:	0.012173		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00061	.000	1
S1	.02000	.02122	.001	6.10	.00176	.000	1
S3	2.5000	2.4745	-.026	-1.02	.13435	.001	1
S4	5.0000	4.9681	-.032	-.637	.26914	.001	1
S5	10.000	10.048	.048	.482	.54371	.001	1
S2	.80000	.80797	.008	.997	.04428	.000	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



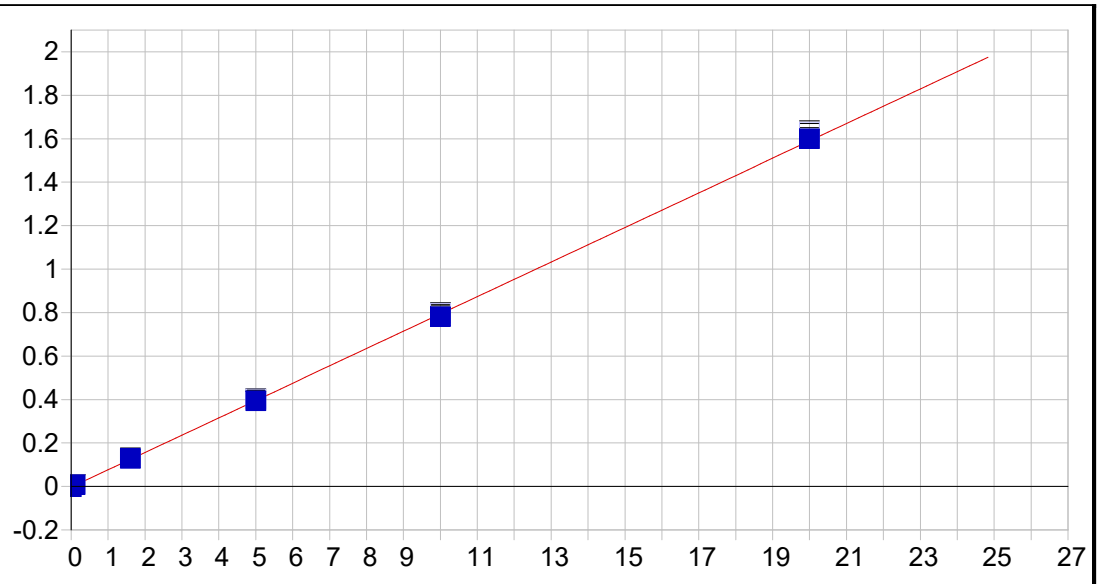
Sb 206.833 {463}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001225	Re-Slope:	1.000000
A1 (Gain):	0.086307	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999979	Status:	OK.
Std Error of Est:	0.000021		
Predicted MDL:	0.002768		
Predicted MQL:	0.009227		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00122	.000	1
S1	.05000	.05302	.003	6.03	.00581	.000	1
S3	2.5000	2.4839	-.016	-.642	.21619	.000	1
S4	5.0000	4.9644	-.036	-.712	.43086	.001	1
S5	10.000	10.048	.048	.475	.87074	.001	1
S2	.80000	.80110	.001	.137	.07055	.000	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



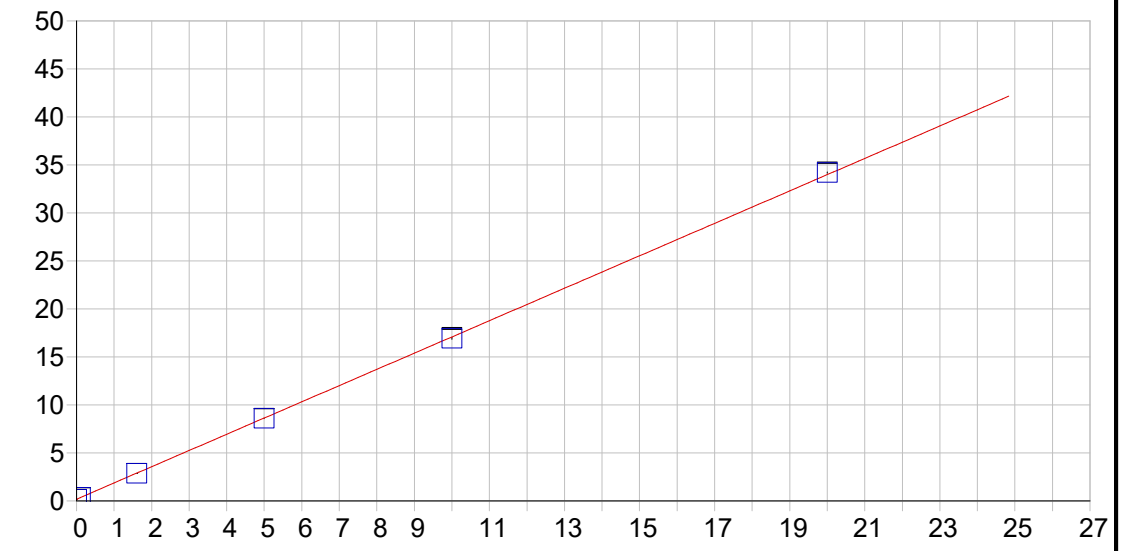
Al 396.152 { 85}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.002706	Re-Slope:	1.000000
A1 (Gain):	0.079633	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999851	Status:	OK.
Std Error of Est:	0.000104		
Predicted MDL:	0.022878		
Predicted MQL:	0.076261		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00003	-.000	.000	-.00271	.001	1
S1	.10000	.12667	.027	26.7	.00800	.000	1
S3	5.0000	4.9791	-.021	-.418	.40152	.002	1
S4	10.000	9.8385	-.162	-1.62	.79621	.004	1
S5	20.000	20.117	.117	.587	1.6302	.006	1
S2	1.6000	1.6369	.037	2.31	.13012	.002	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



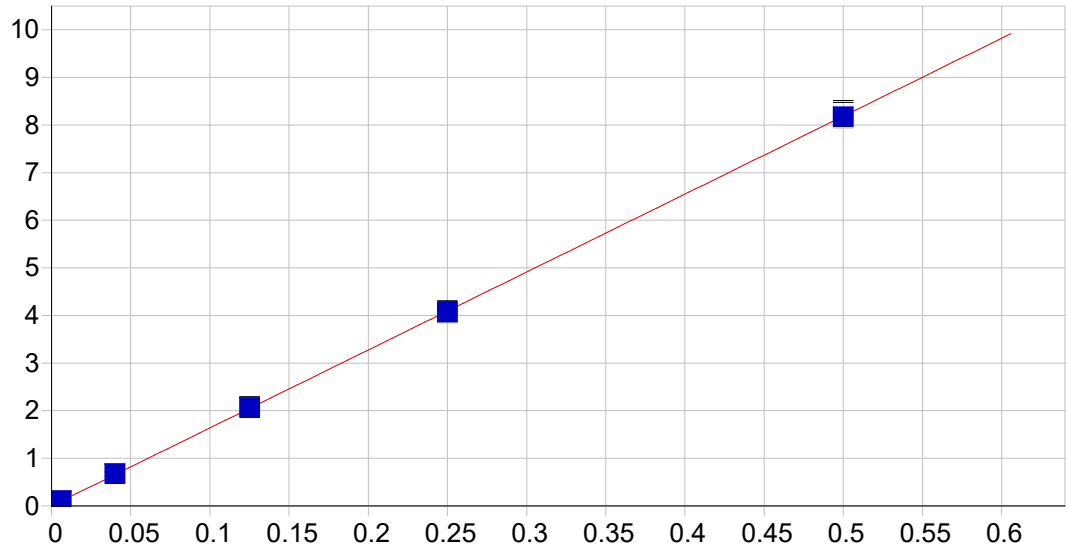
Ba 493.409 { 68}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.181561	Re-Slope:	1.000000
A1 (Gain):	1.690103	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999976	Status:	OK.
Std Error of Est:	0.000862		
Predicted MDL:	0.002497		
Predicted MQL:	0.008322		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.18156	.002	1
S1	.10000	.10065	.001	.652	.35167	.005	1
S3	5.0000	4.9735	-.027	-.531	8.5872	.013	1
S4	10.000	9.9196	-.080	-.804	16.947	.102	1
S5	20.000	20.123	.123	.617	34.192	.064	1
S2	1.6000	1.5828	-.017	-1.07	2.8567	.006	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



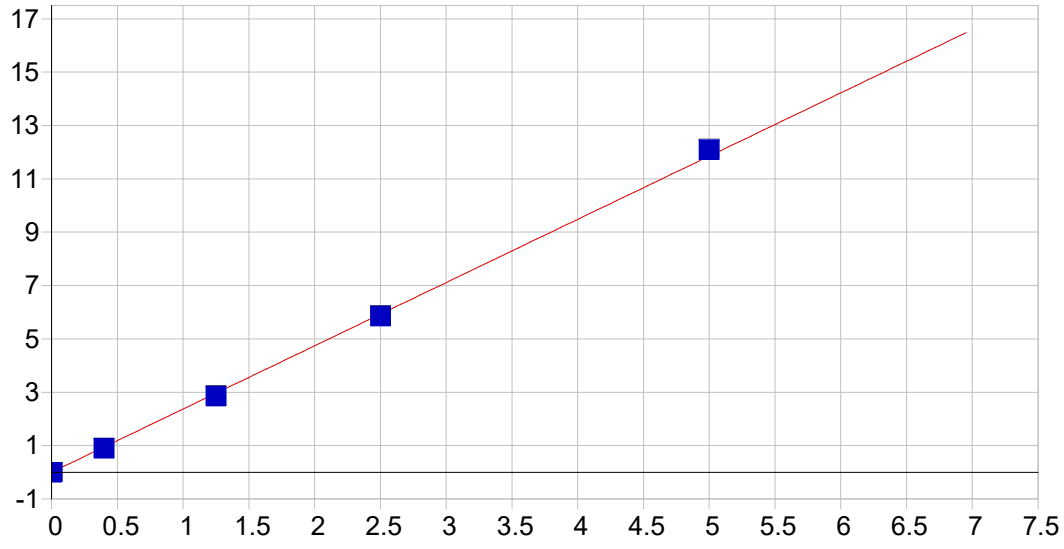
Be 234.861 {144}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001092	Re-Slope:	1.000000
A1 (Gain):	16.370982	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999958	Status:	OK.
Std Error of Est:	0.000431		
Predicted MDL:	0.000091		
Predicted MQL:	0.000303		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00108	.001	1
S1	.00600	.00635	.000	5.78	.10426	.002	1
S3	.12500	.12598	.001	.788	2.0544	.020	1
S4	.25000	.24820	-.002	-.719	4.0461	.034	1
S5	.50000	.49928	-.001	-.144	8.1381	.132	1
S2	.04000	.04119	.001	2.97	.67245	.002	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



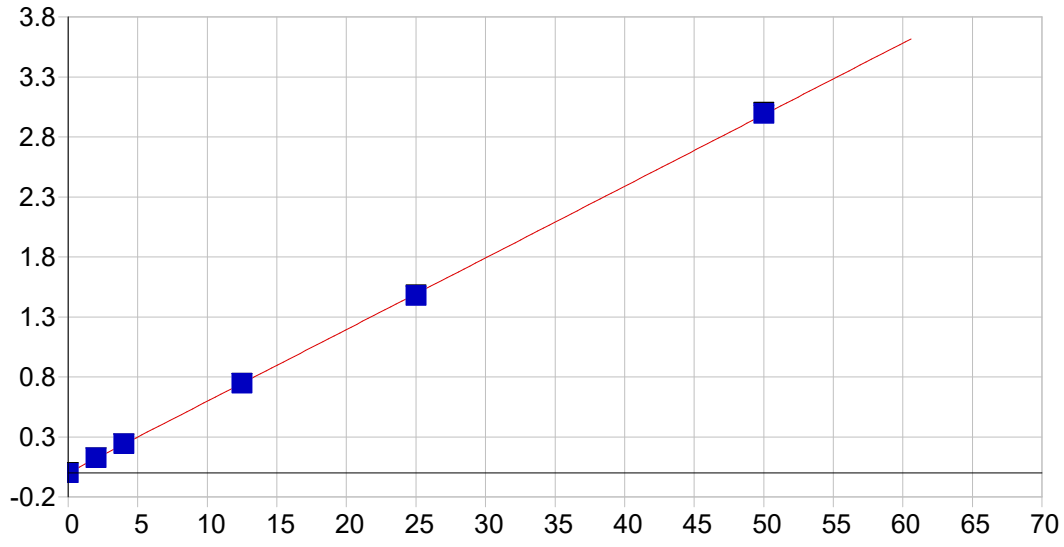
Cd 226.502 {449}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000922	Re-Slope:	1.000000
A1 (Gain):	2.370603	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999701	Status:	OK.
Std Error of Est:	0.000526		
Predicted MDL:	0.000120		
Predicted MQL:	0.000400		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00092	.000	1
S1	.00600	.00576	-.000	-3.99	.01278	.000	1
S3	1.2500	1.2029	-.047	-3.77	2.8525	.006	1
S4	2.5000	2.4680	-.032	-1.28	5.8536	.006	1
S5	5.0000	5.1015	.102	2.03	12.101	.012	1
S2	.40000	.37787	-.022	-5.53	.89549	.001	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



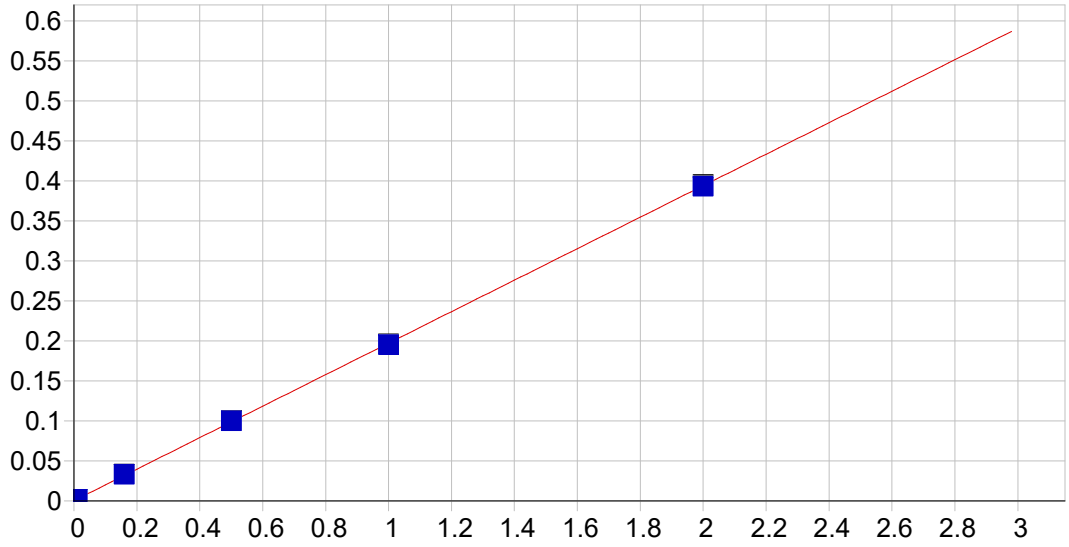
Ca 373.690 { 90}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000532	Re-Slope:	1.000000
A1 (Gain):	0.059690	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999960	Status:	OK.
Std Error of Est:	0.000281		
Predicted MDL:	0.024367		
Predicted MQL:	0.081223		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00009	-.000	.000	.00053	.001	1
S2	4.0000	4.0449	.045	1.12	.24197	.001	1
S3	12.500	12.490	-.010	-.081	.74605	.001	1
S4	25.000	24.739	-.261	-1.04	1.4772	.004	1
S5	50.000	50.140	.140	.279	2.9933	.012	1
S1	2.0000	2.0866	.087	4.33	.12508	.001	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



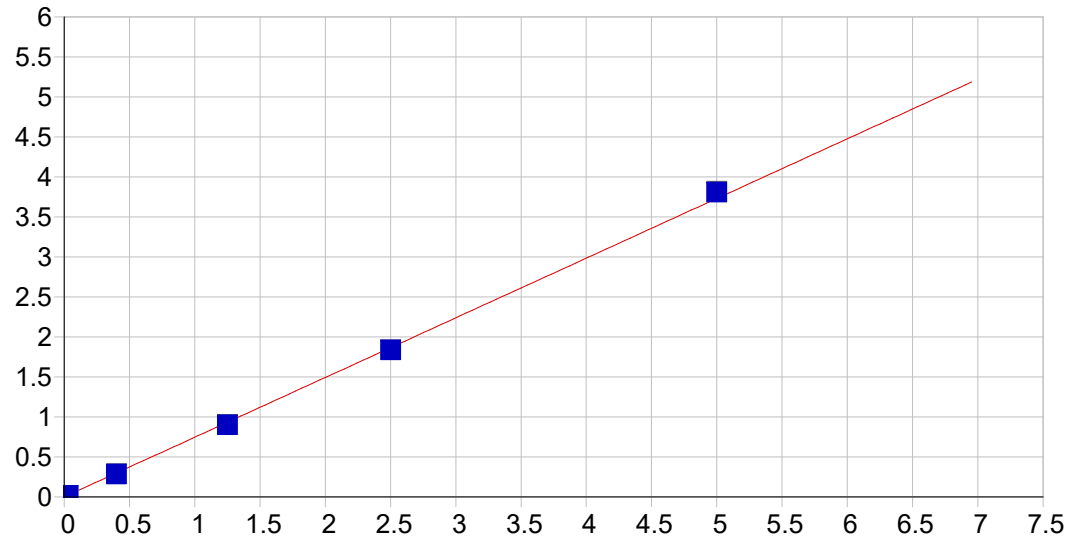
Cr 267.716 {126}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000342	Re-Slope:	1.000000
A1 (Gain):	0.196834	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999923	Status:	OK.
Std Error of Est:	0.000018		
Predicted MDL:	0.000627		
Predicted MQL:	0.002091		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00034	.000	1
S1	.01000	.00953	-.000	-4.69	.00222	.000	1
S3	.50000	.50686	.007	1.37	.10019	.000	1
S4	1.0000	.98991	-.010	-1.01	.19535	.001	1
S5	2.0000	1.9963	-.004	-.186	.39359	.002	1
S2	.16000	.16743	.007	4.64	.03332	.000	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



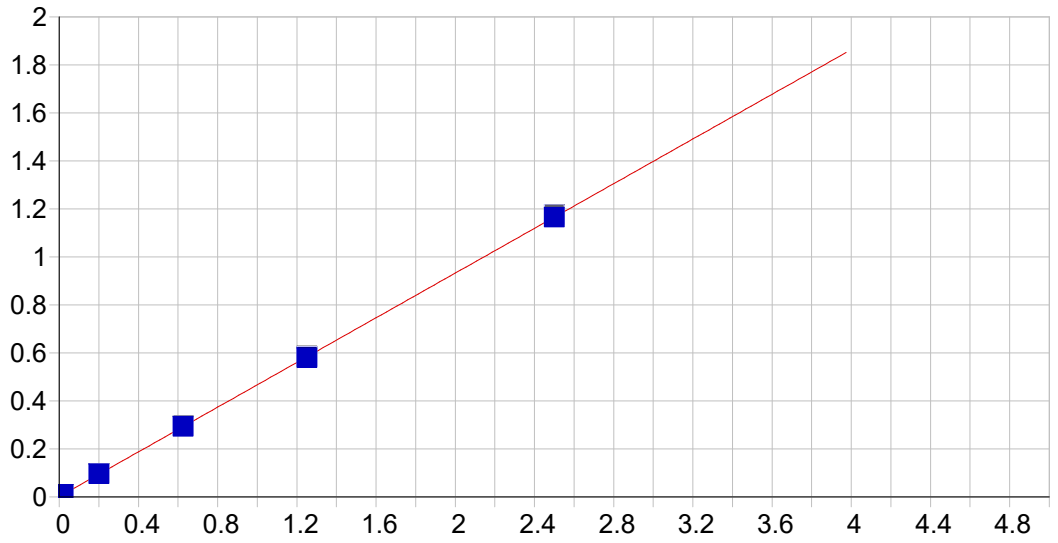
Co 228.616 {448}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000514	Re-Slope:	1.000000
A1 (Gain):	0.745945	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999723	Status:	OK.
Std Error of Est:	0.000357		
Predicted MDL:	0.000336		
Predicted MQL:	0.001120		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00052	.000	1
S1	.03000	.02919	-.001	-2.70	.02219	.000	1
S3	1.2500	1.2059	-.044	-3.53	.90163	.001	1
S4	2.5000	2.4604	-.040	-1.58	1.8390	.002	1
S5	5.0000	5.1024	.102	2.05	3.8130	.006	1
S2	.40000	.38208	-.018	-4.48	.28603	.000	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



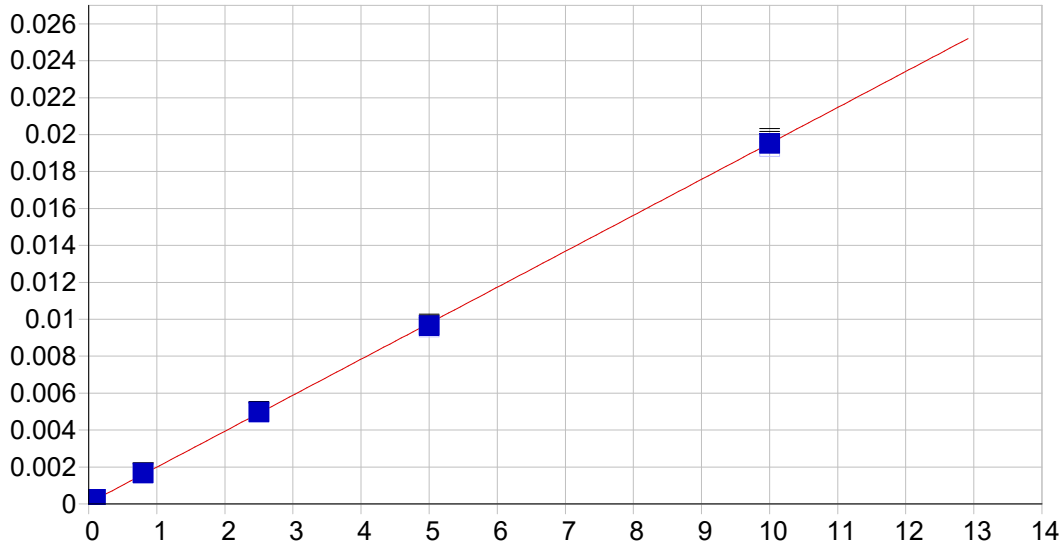
Cu 224.700 {450}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001552	Re-Slope:	1.000000
A1 (Gain):	0.465574	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999977	Status:	OK.
Std Error of Est:	0.000038		
Predicted MDL:	0.000718		
Predicted MQL:	0.002392		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00155	.000	1
S1	.02000	.02146	.001	7.28	.01165	.000	1
S3	.62500	.62583	.001	.132	.29535	.000	1
S4	1.2500	1.2429	-.007	-.567	.58507	.001	1
S5	2.5000	2.5010	.001	.041	1.1757	.001	1
S2	.20000	.20378	.004	1.89	.09720	.000	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



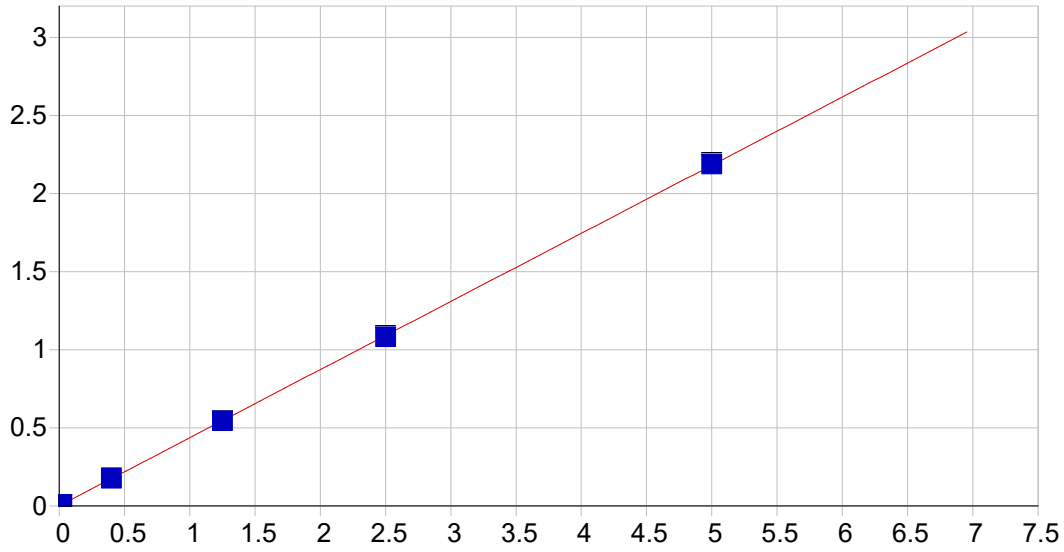
Fe 240.488 {140}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000041	Re-Slope:	1.000000
A1 (Gain):	0.001948	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999916	Status:	OK.
Std Error of Est:	0.000001		
Predicted MDL:	0.015091		
Predicted MQL:	0.050303		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00004	.000	1
S1	.10000	.10322	.003	3.22	.00024	.000	1
S3	2.5000	2.5332	.033	1.33	.00493	.000	1
S4	5.0000	4.9327	-.067	-1.35	.00957	.000	1
S5	10.000	9.9952	-.005	-.048	.01935	.000	1
S2	.80000	.83570	.036	4.46	.00166	.000	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



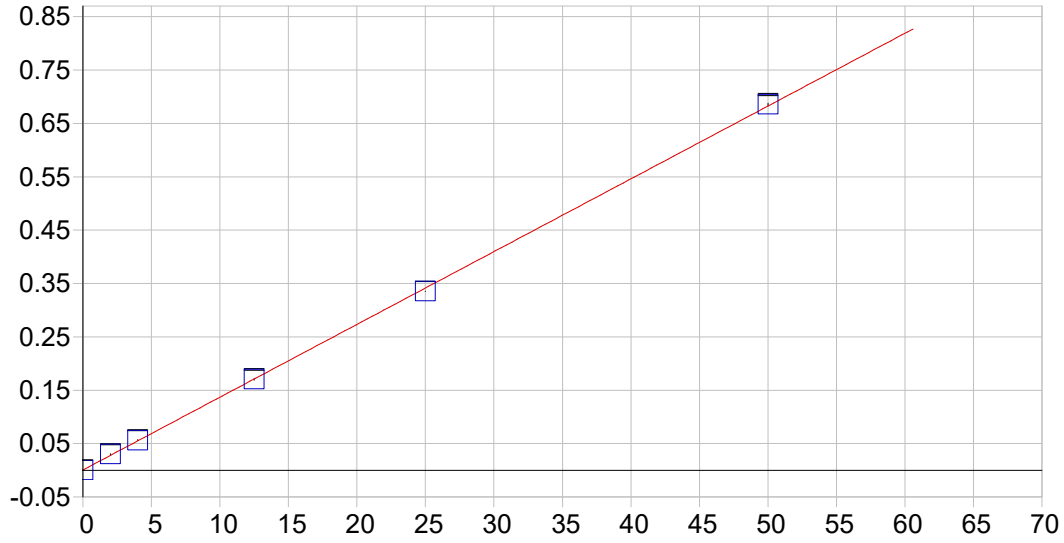
Mn 257.610 {131}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000415	Re-Slope:	1.000000
A1 (Gain):	0.436151	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999983	Status:	OK.
Std Error of Est:	0.000043		
Predicted MDL:	0.001192		
Predicted MQL:	0.003973		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00041	.000	1
S1	.02000	.02086	.001	4.28	.00951	.001	1
S3	1.2500	1.2495	-.000	-.039	.54550	.001	1
S4	2.5000	2.4794	-.021	-.823	1.0820	.007	1
S5	5.0000	5.0151	.015	.301	2.1882	.010	1
S2	.40000	.40512	.005	1.28	.17714	.001	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



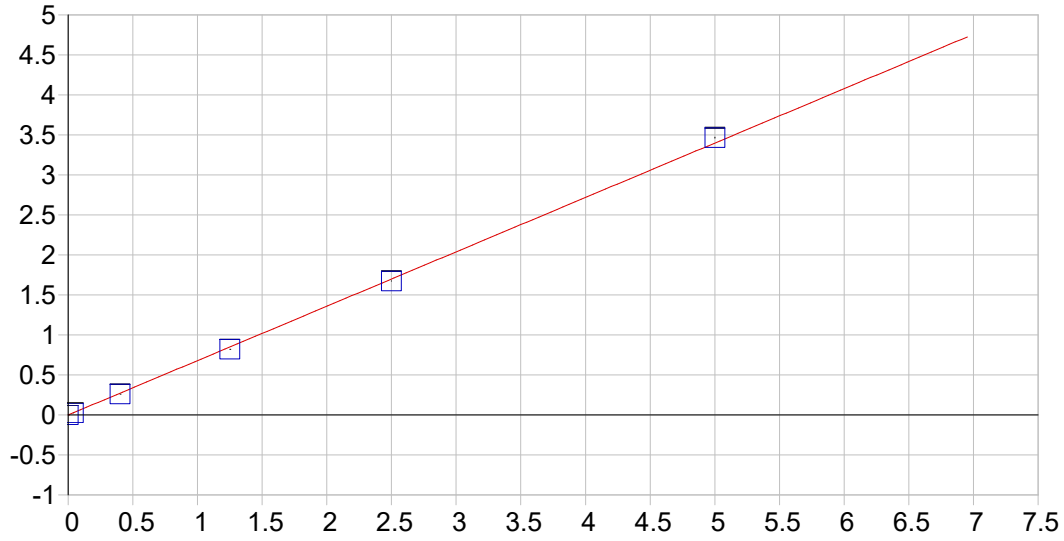
Mg 279.079 {121}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000492	Re-Slope:	1.000000
A1 (Gain):	0.013641	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999861	Status:	OK.
Std Error of Est:	0.000120		
Predicted MDL:	0.049959		
Predicted MQL:	0.166530		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00018	-.000	.000	.00049	.001	1
S2	4.0000	4.0825	.082	2.06	.05618	.001	1
S3	12.500	12.459	-.041	-.326	.17045	.001	1
S4	25.000	24.557	-.443	-1.77	.33546	.000	1
S5	50.000	50.227	.227	.454	.68563	.002	1
S1	2.0000	2.1745	.175	8.73	.03015	.001	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



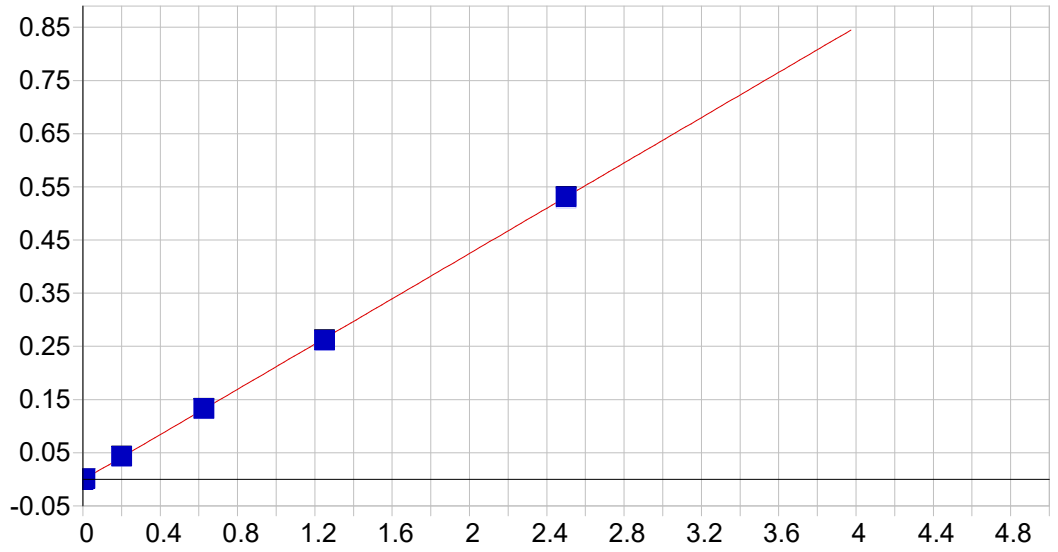
Ni 231.604 {446}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000874	Re-Slope:	1.000000
A1 (Gain):	0.679733	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999743	Status:	OK.
Std Error of Est:	0.000362		
Predicted MDL:	0.000428		
Predicted MQL:	0.001426		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00087	.000	1
S1	.04000	.03916	-.001	-2.10	.02574	.000	1
S3	1.2500	1.2059	-.044	-3.53	.81881	.001	1
S4	2.5000	2.4627	-.037	-1.49	1.6731	.002	1
S5	5.0000	5.0985	.098	1.97	3.4647	.006	1
S2	.40000	.38382	-.016	-4.04	.26002	.000	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



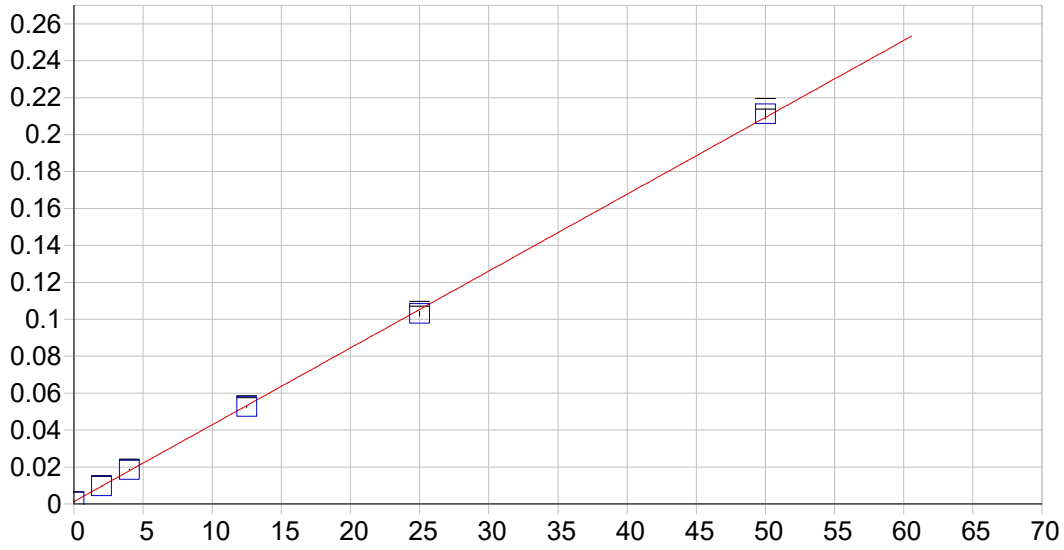
Ag 328.068 {103}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001102	Re-Slope:	1.000000
A1 (Gain):	0.212899	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999934	Status:	OK.
Std Error of Est:	0.000020		
Predicted MDL:	0.000931		
Predicted MQL:	0.003103		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00110	.000	1
S1	.01000	.01037	.000	3.71	.00109	.000	1
S3	.62500	.62987	.005	.780	.13235	.000	1
S4	1.2500	1.2359	-.014	-1.13	.26072	.000	1
S5	2.5000	2.5001	.000	.003	.52858	.001	1
S2	.20000	.20879	.009	4.40	.04314	.000	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



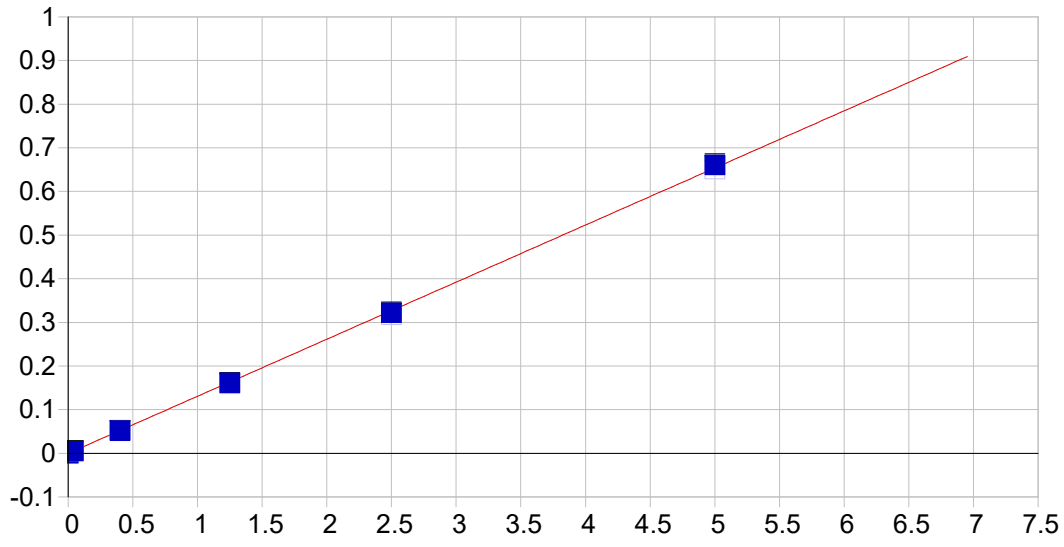
Na 589.592 { 57}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001279	Re-Slope:	1.000000
A1 (Gain):	0.004161	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999867	Status:	OK.
Std Error of Est:	0.000036		
Predicted MDL:	0.049949		
Predicted MQL:	0.166496		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00006	-.000	.000	.00128	.000	1
S2	4.0000	4.1672	.167	4.18	.01862	.000	1
S3	12.500	12.373	-.127	-1.01	.05277	.001	1
S4	25.000	24.458	-.542	-2.17	.10305	.001	1
S5	50.000	50.477	.477	.954	.21132	.003	1
S1	2.0000	2.0250	.025	1.25	.00971	.000	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



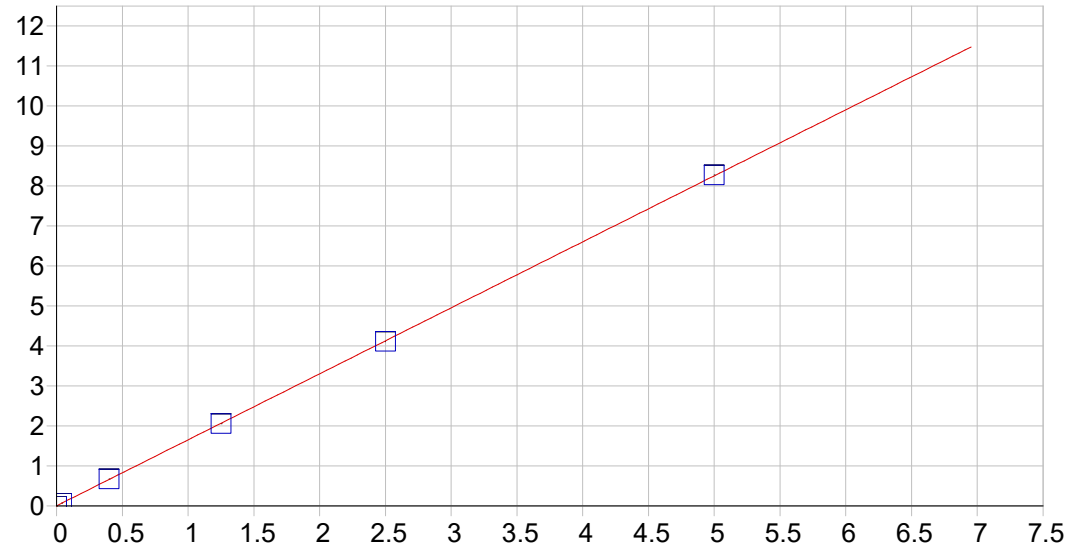
V 292.402 {115}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000237	Re-Slope:	1.000000
A1 (Gain):	0.130813	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999927	Status:	OK.
Std Error of Est:	0.000037		
Predicted MDL:	0.006124		
Predicted MQL:	0.020413		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00024	.001	1
S1	.04000	.04123	.001	3.07	.00496	.000	1
S3	1.2500	1.2355	-.014	-1.16	.15900	.001	1
S4	2.5000	2.4635	-.037	-1.46	.31725	.002	1
S5	5.0000	5.0526	.053	1.05	.65117	.003	1
S2	.40000	.39727	-.003	-.683	.05097	.001	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



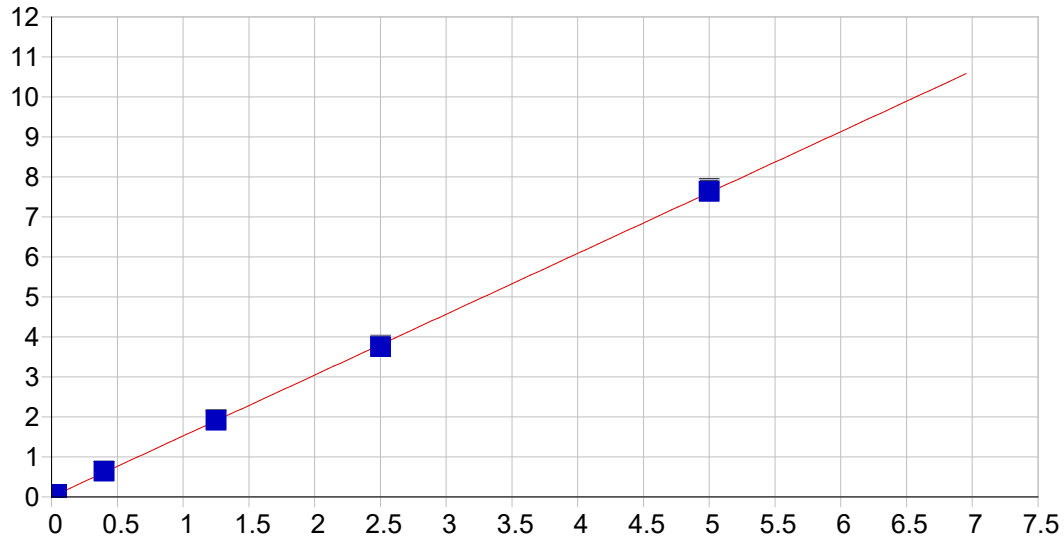
Zn 206.200 {464}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002047	Re-Slope:	1.000000
A1 (Gain):	1.650603	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999985	Status:	OK.
Std Error of Est:	0.000214		
Predicted MDL:	0.000132		
Predicted MQL:	0.000441		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00204	.000	1
S1	.04000	.04223	.002	5.57	.07175	.000	1
S3	1.2500	1.2433	-.007	-.536	2.0542	.001	1
S4	2.5000	2.4885	-.012	-.461	4.1095	.005	1
S5	5.0000	5.0121	.012	.242	8.2750	.002	1
S2	.40000	.40393	.004	.982	.66877	.000	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



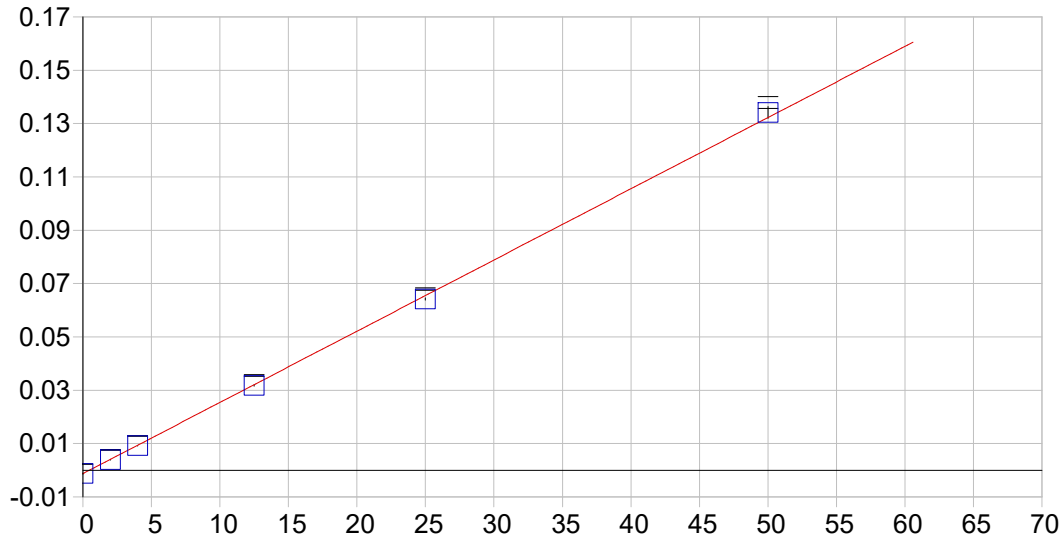
Zn 213.856 {158}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002213	Re-Slope:	1.000000
A1 (Gain):	1.521535	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999928	Status:	OK.
Std Error of Est:	0.000431		
Predicted MDL:	0.000495		
Predicted MQL:	0.001650		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00221	.000	1
S1	.04000	.04219	.002	5.46	.06683	.000	1
S3	1.2500	1.2534	.003	.269	1.9225	.006	1
S4	2.5000	2.4653	-.035	-1.39	3.7797	.013	1
S5	5.0000	5.0125	.012	.249	7.6817	.021	1
S2	.40000	.41671	.017	4.18	.64048	.002	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



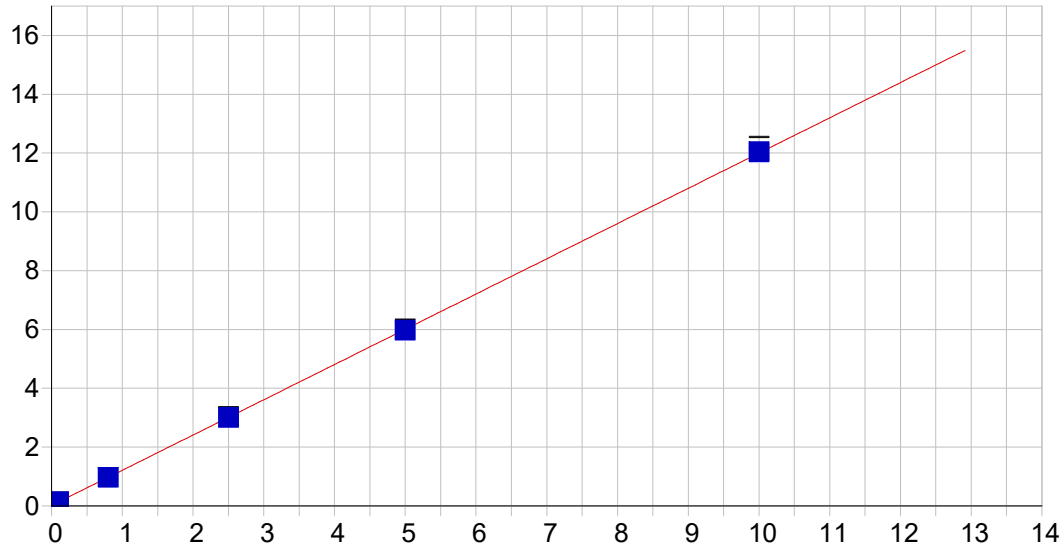
K 766.490 { 44}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001284	Re-Slope:	1.000000
A1 (Gain):	0.002671	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999876	Status:	OK.
Std Error of Est:	0.000022		
Predicted MDL:	0.090834		
Predicted MQL:	0.302779		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00011	.000	.000	-.00128	.000	1
S2	4.0000	3.9192	-.081	-2.02	.00918	.000	1
S3	12.500	12.393	-.107	-.856	.03181	.000	1
S4	25.000	24.515	-.485	-1.94	.06419	.000	1
S5	50.000	50.717	.717	1.43	.13417	.002	1
S1	2.0000	1.9561	-.044	-2.20	.00394	.000	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



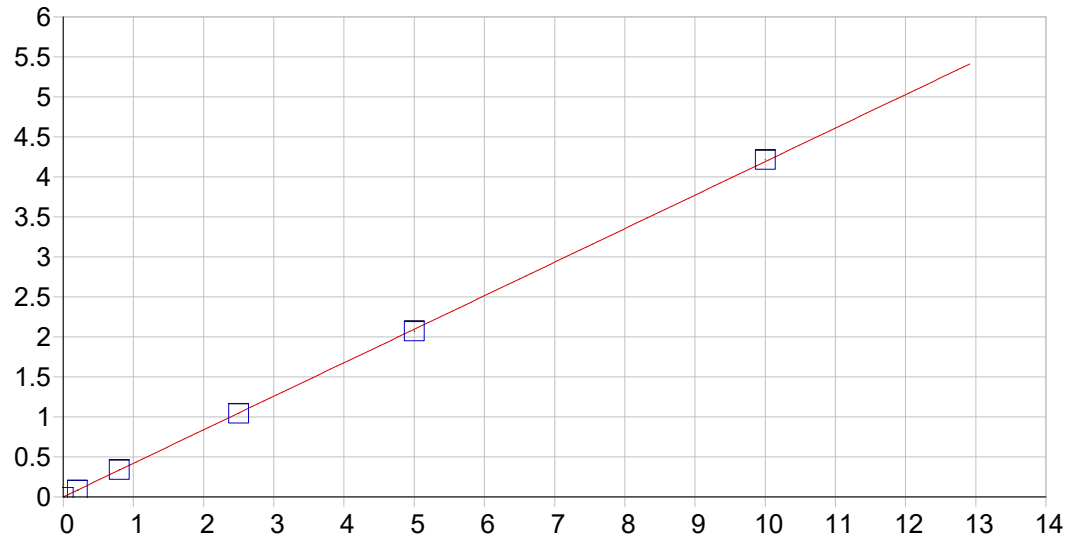
B 249.678 {135}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.014421	Re-Slope:	1.000000
A1 (Gain):	1.198587	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999990	Status:	OK.
Std Error of Est:	0.000285		
Predicted MDL:	0.001275		
Predicted MQL:	0.004251		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.01442	.000	1
S1	.10000	.10251	.003	2.51	.13658	.000	1
S3	2.5000	2.4928	-.007	-.286	2.9915	.029	1
S4	5.0000	4.9722	-.028	-.557	5.9524	.048	1
S5	10.000	10.036	.036	.356	12.000	.186	1
S2	.80000	.79693	-.003	-.384	.96615	.003	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



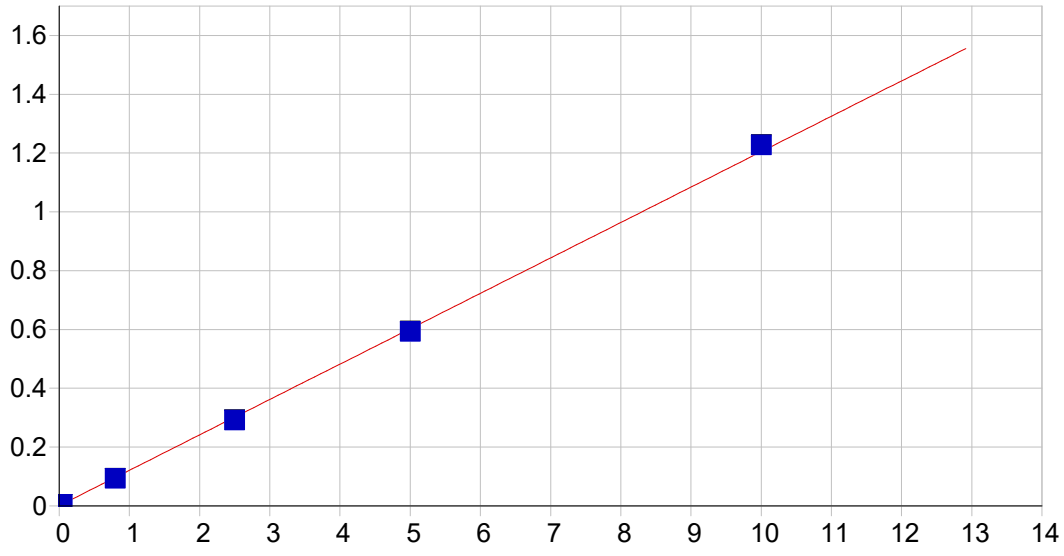
Mo 202.030 {467}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000602	Re-Slope:	1.000000
A1 (Gain):	0.419035	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999970	Status:	OK.
Std Error of Est:	0.000242		
Predicted MDL:	0.000503		
Predicted MQL:	0.001676		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00060	.000	1
S1	.20000	.20053	.001	.266	.08463	.000	1
S3	2.5000	2.4890	-.011	-.441	1.0436	.002	1
S4	5.0000	4.9440	-.056	-1.12	2.0723	.003	1
S5	10.000	10.057	.057	.573	4.2150	.002	1
S2	.80000	.80923	.009	1.15	.33970	.001	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



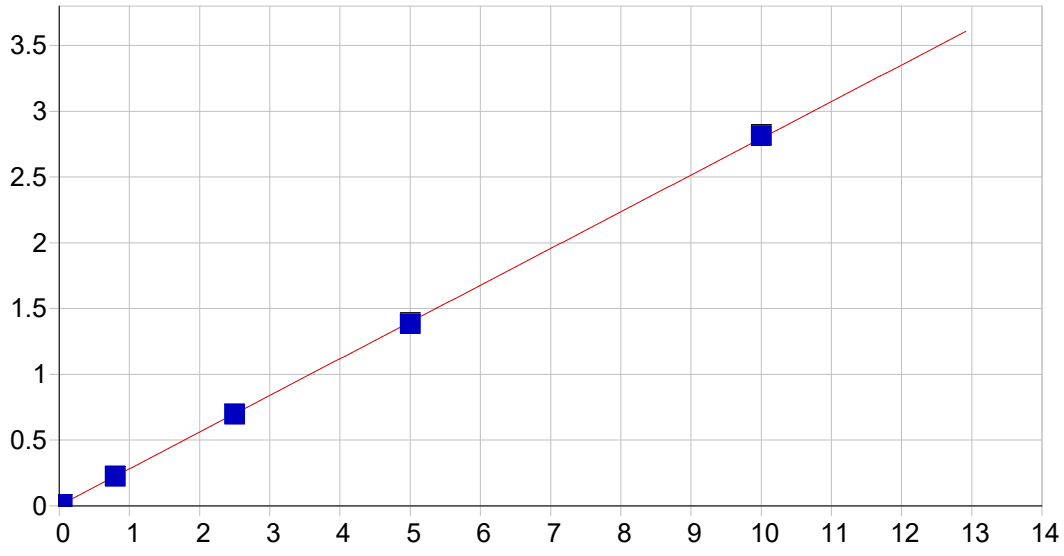
Sn 189.989 {478}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000724	Re-Slope:	1.000000
A1 (Gain):	0.120393	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999769	Status:	OK.
Std Error of Est:	0.000086		
Predicted MDL:	0.000954		
Predicted MQL:	0.003181		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00072	.000	1
S1	.04000	.03796	-.002	-5.09	.00529	.000	1
S3	2.5000	2.4197	-.080	-3.21	.29174	.001	1
S4	5.0000	4.9241	-.076	-1.52	.59293	.001	1
S5	10.000	10.188	.188	1.88	1.2260	.001	1
S2	.80000	.77023	-.030	-3.72	.09336	.000	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



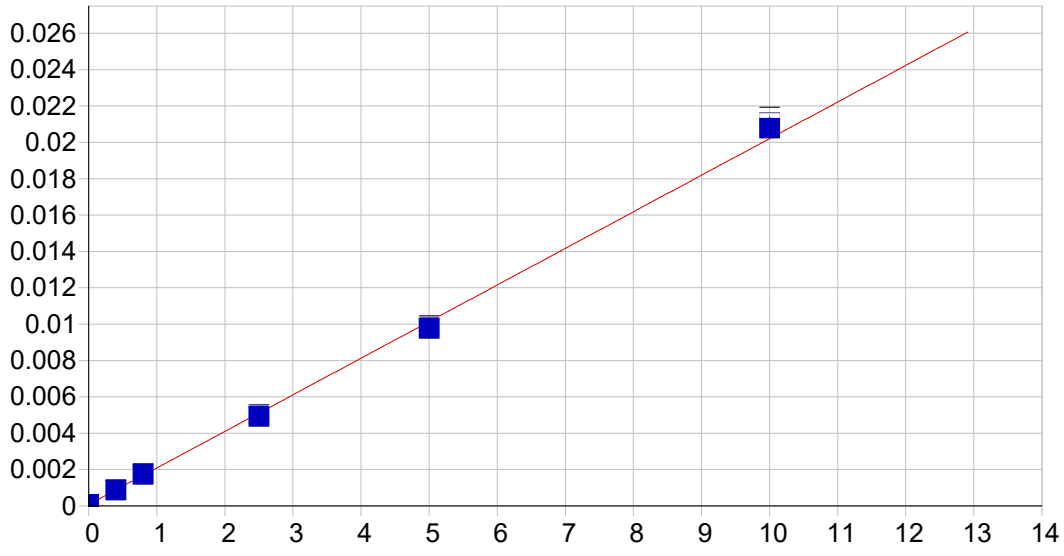
Ti 336.121 {100}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002774	Re-Slope:	1.000000
A1 (Gain):	0.279125	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999966	Status:	OK.
Std Error of Est:	0.000076		
Predicted MDL:	0.003723		
Predicted MQL:	0.012411		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00277	.002	1
S1	.04000	.03742	-.003	-6.45	.01321	.001	1
S3	2.5000	2.4837	-.016	-.653	.69578	.003	1
S4	5.0000	4.9522	-.048	-.955	1.3846	.007	1
S5	10.000	10.071	.071	.706	2.8127	.009	1
S2	.80000	.79605	-.004	-.493	.22489	.001	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



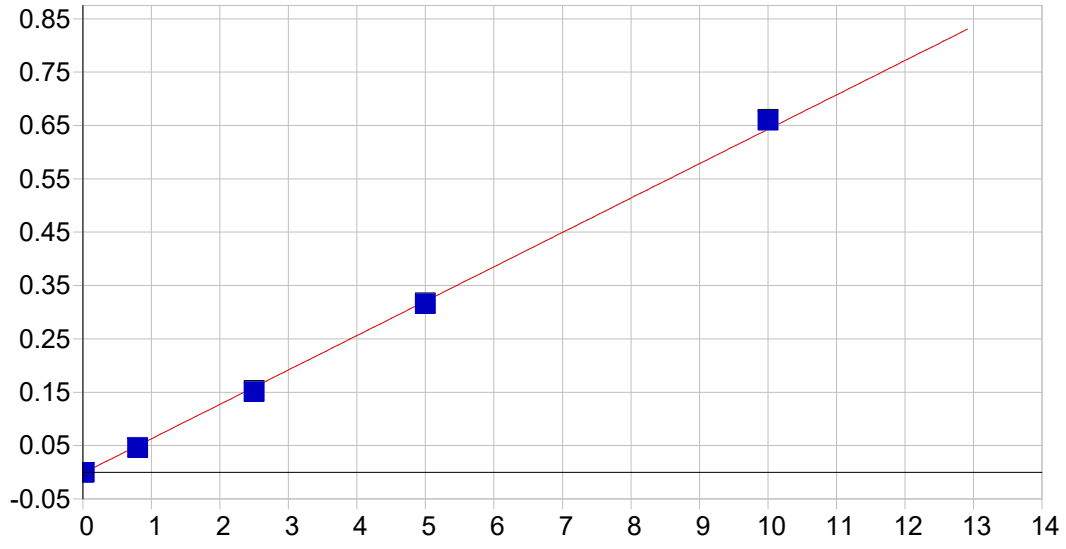
Si 288.158 {117}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000073	Re-Slope:	1.000000
A1 (Gain):	0.002014	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999501	Status:	OK.
Std Error of Est:	0.000007		
Predicted MDL:	0.027342		
Predicted MQL:	0.091142		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00007	.000	1
S1	.40000	.39257	-.007	-1.86	.00086	.000	1
S3	2.5000	2.4069	-.093	-3.72	.00499	.000	1
S4	5.0000	4.8056	-.194	-3.89	.00990	.000	1
S5	10.000	10.278	.278	2.78	.02107	.000	1
S2	.80000	.81717	.017	2.15	.00174	.000	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



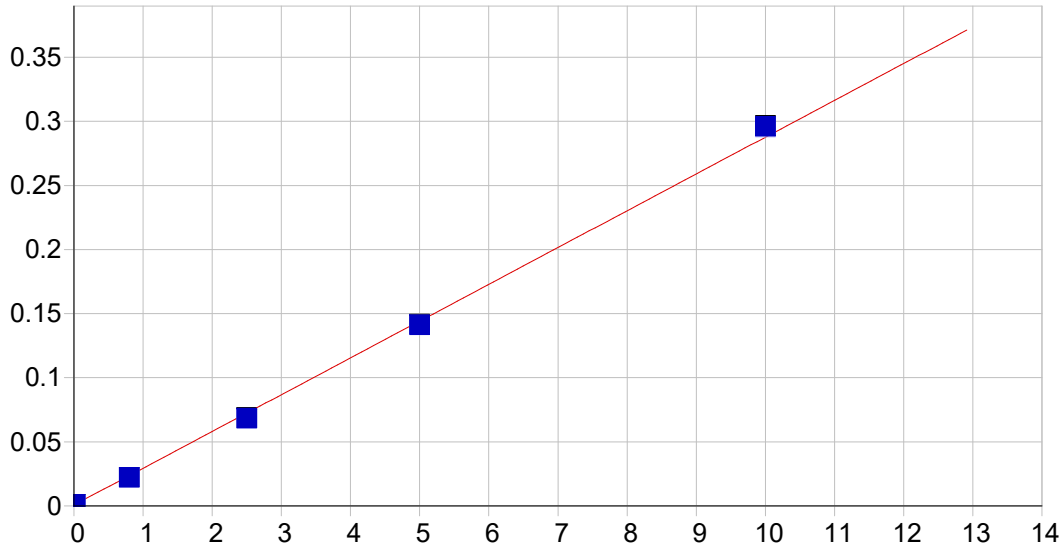
P 177.495 {490}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001649	Re-Slope:	1.000000
A1 (Gain):	0.064450	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999484	Status:	OK.
Std Error of Est:	0.000049		
Predicted MDL:	0.001493		
Predicted MQL:	0.004978		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00165	.000	1
S1	.02000	.01835	-.002	-8.23	-.00046	.000	1
S3	2.5000	2.3712	-.129	-5.15	.15115	.001	1
S4	5.0000	4.9249	-.075	-1.50	.31571	.002	1
S5	10.000	10.263	.263	2.63	.65970	.002	1
S2	.80000	.74267	-.057	-7.17	.04621	.000	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



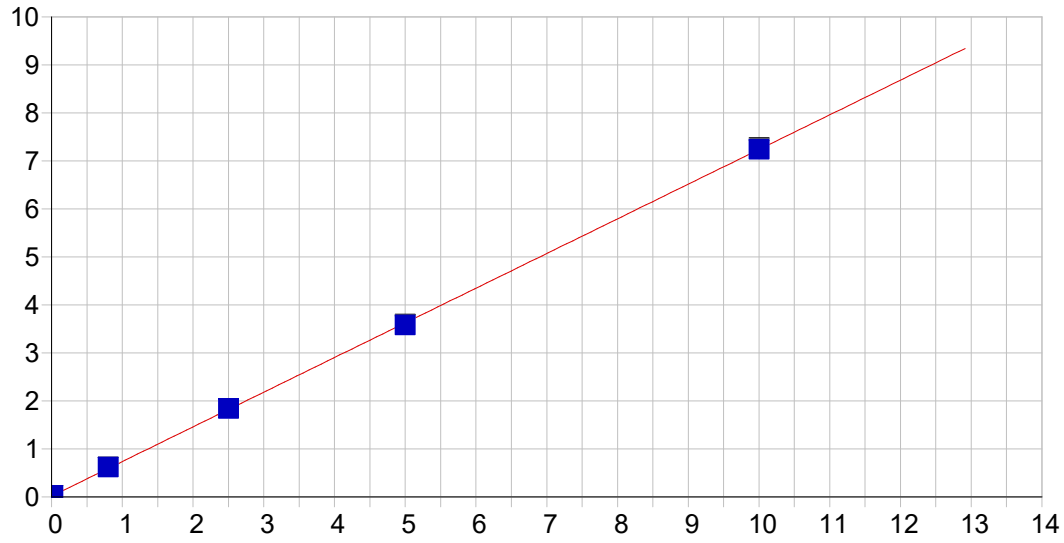
S 182.034 {485}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000676	Re-Slope:	1.000000
A1 (Gain):	0.028703	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999390	Status:	OK.
Std Error of Est:	0.000023		
Predicted MDL:	0.003384		
Predicted MQL:	0.011280		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00068	.000	1
S1	.02000	.01842	-.002	-7.92	.00118	.000	1
S3	2.5000	2.3572	-.143	-5.71	.06815	.001	1
S4	5.0000	4.9010	-.099	-1.98	.14097	.000	1
S5	10.000	10.295	.295	2.95	.29542	.001	1
S2	.80000	.74855	-.051	-6.43	.02210	.000	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



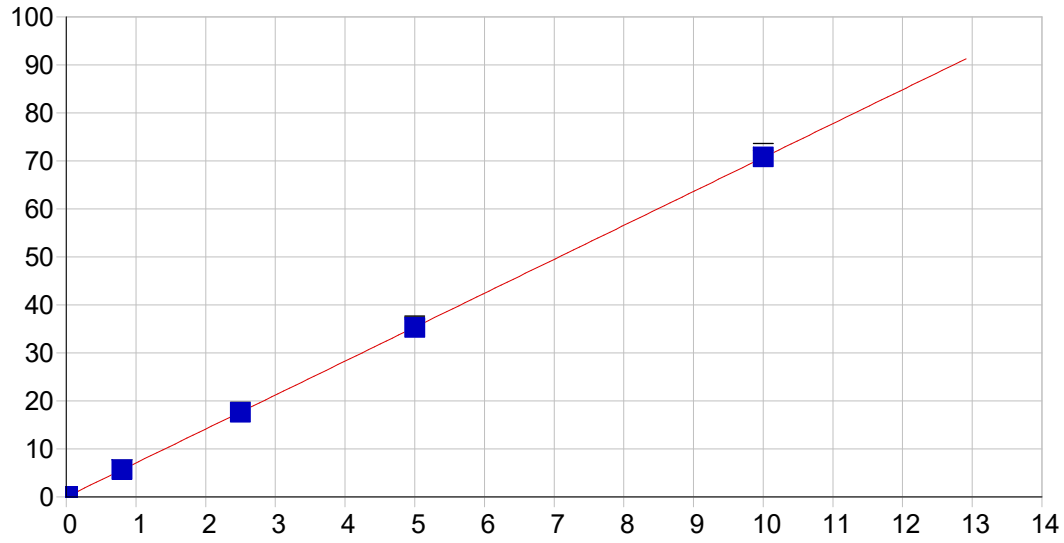
Li 670.784 { 50}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.014602	Re-Slope:	1.000000
A1 (Gain):	0.722299	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999924	Status:	OK.
Std Error of Est:	0.000208		
Predicted MDL:	0.004488		
Predicted MQL:	0.014959		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.01460	.002	1
S5	10.000	10.007	.007	.067	7.2482	.024	1
S4	5.0000	4.9345	-.065	-1.31	3.5817	.016	1
S3	2.5000	2.5237	.024	.949	1.8389	.001	1
S1	.02000	.01890	-.001	-5.51	.02850	.005	1
S2	.80000	.83614	.036	4.52	.61901	.003	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



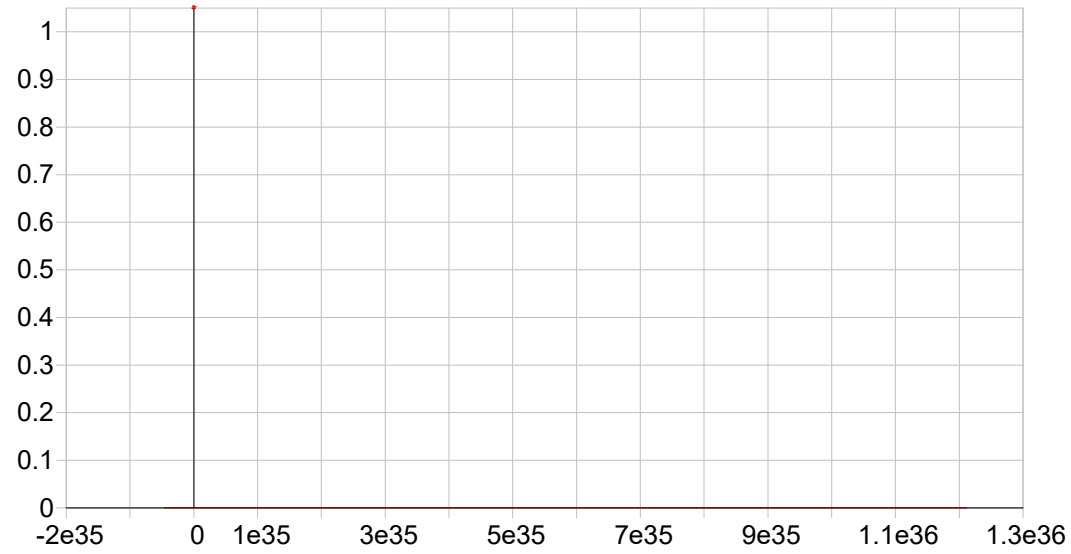
Sr 407.771 { 83}

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002812	Re-Slope:	1.000000
A1 (Gain):	7.069469	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999996	Status:	OK.
Std Error of Est:	0.000491		
Predicted MDL:	0.000249		
Predicted MQL:	0.000829		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00280	.002	1
S1	.02000	.02132	.001	6.62	.15424	.001	1
S3	2.5000	2.4928	-.007	-.288	17.643	.022	1
S4	5.0000	4.9888	-.011	-.224	35.305	.310	1
S5	10.000	10.016	.016	.164	70.881	.717	1
S2	.80000	.80064	.001	.080	5.6684	.005	1

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

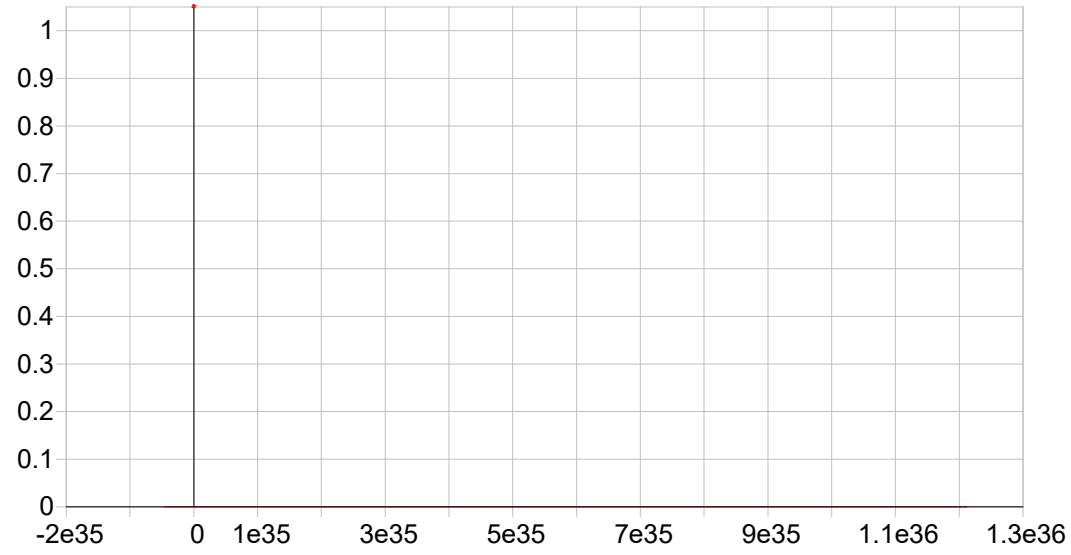


Y 224.306 {450}*

Date of Fit:	9/30/2025 13:14:27	Type of Fit:	Linear	Weighting:	1/Conc

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

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



Y 360.073 { 94}*

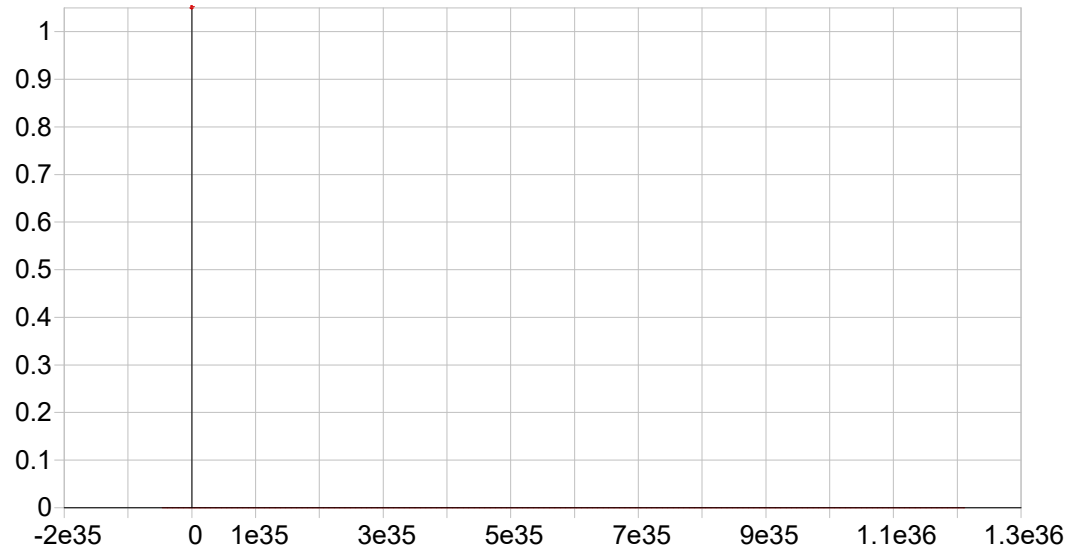
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

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

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

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

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



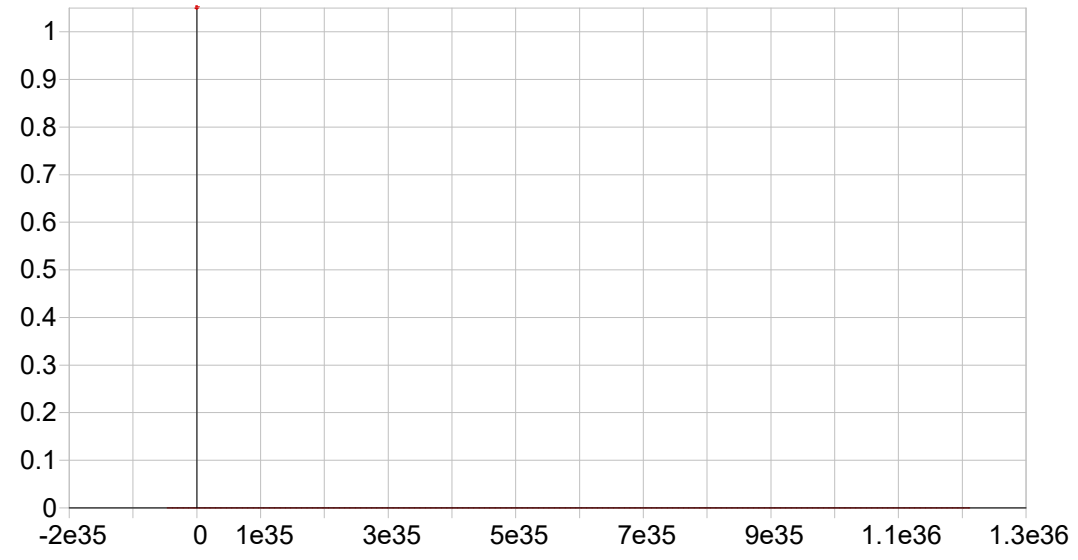
Y 371.030 { 91}*

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

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

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

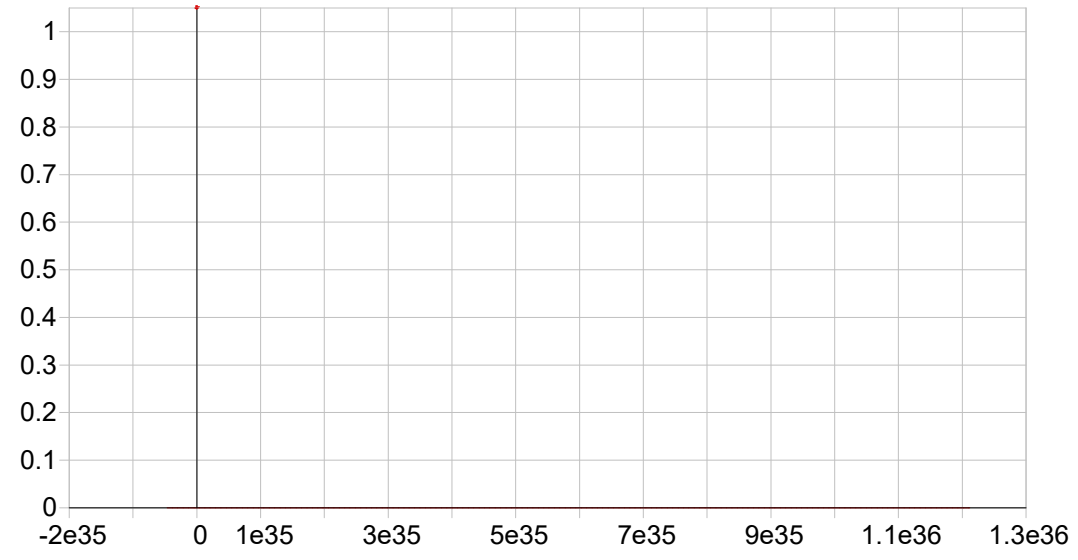
Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374



Y 224.306 {150}*

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

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



In 230.606 {446}*

Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	0.000000		Re-Slope:	1.000000	
A1 (Gain):	0.000000		Y-int:	0.000000	

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

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

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

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: S0 Acquired: 9/30/2025 12:51:51 Type: Cal
Method: 6010-200.7 NEW(v228) 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	**.00009**	**.00073**	**.00100**	**.00061**	**.00122**	**-.00271**	**.18156**	**.00108**
Stddev	.00008	.00013	.00040	.00002	.00013	.00083	.00205	.00078
%RSD	88.741	17.278	39.971	2.9794	10.311	30.502	1.1289	71.860
#1	.00015	.00087	.00066	.00062	.00131	-.00182	.18261	.00197
#2	.00010	.00063	.00091	.00059	.00108	-.00285	.18288	.00053
#3	.00000	.00069	.00144	.00062	.00128	-.00345	.17920	.00075

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	**-.00092**	**.00053**	**.00034**	**.00052**	**.00155**	**.00004**	**.00041**	**.00049**
Stddev	.00038	.00101	.00014	.00033	.00026	.00001	.00008	.00067
%RSD	41.524	191.53	42.034	63.610	16.639	32.044	19.160	136.99
#1	-.00130	.00037	.00039	.00085	.00179	.00003	.00038	.00107
#2	-.00054	.00160	.00046	.00020	.00159	.00005	.00050	.00065
#3	-.00092	-.00039	.00018	.00050	.00128	.00005	.00036	-.00025

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	**-.00087**	**-.00110**	**.00128**	**-.00024**	**.00221**	**-.00128**	**.01442**	**.00060**
Stddev	.00016	.00006	.00021	.00062	.00046	.00024	.00046	.00009
%RSD	17.885	5.5121	16.184	262.17	21.052	18.461	3.1957	15.619
#1	-.00105	-.00104	.00150	-.00024	.00167	-.00130	.01495	.00049
#2	-.00075	-.00116	.00109	.00039	.00245	-.00104	.01414	.00064
#3	-.00081	-.00111	.00124	-.00086	.00250	-.00151	.01417	.00067

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	**.00072**	**.00277**	**.00007**	**-.00165**	**.00068**	**.01460**	**.00280**
Stddev	.00010	.00152	.00001	.00001	.00007	.00225	.00160
%RSD	13.825	54.892	8.6712	.89652	10.401	15.440	57.108
#1	.00080	.00272	.00008	-.00165	.00076	.01420	.00428
#2	.00061	.00432	.00007	-.00163	.00063	.01257	.00302
#3	.00077	.00128	.00007	-.00166	.00065	.01703	.00110

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: S0 Acquired: 9/30/2025 12:51:51 Type: Cal
Method: 6010-200.7 NEW(v228) 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	7082.9	84556.	4723.0	5474.4	8457.9
Stddev	12.4	609.	30.7	47.3	17.0
%RSD	.17486	.71986	.65010	.86493	.20074
#1	7069.0	84477.	4708.4	5449.6	8443.6
#2	7087.3	83992.	4702.3	5444.6	8453.4
#3	7092.5	85201.	4758.3	5529.0	8476.7

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: S1 Acquired: 9/30/2025 12:56:10 Type: Cal
Method: 6010-200.7 NEW(v228) 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	**.00100**	**.00385**	**.00377**	**.00176**	**.00581**	**.00800**	**.35167**	**.10426**
Stddev	.00009	.00014	.00029	.00011	.00018	.00037	.00516	.00156
%RSD	8.6511	3.5211	7.6324	6.4522	3.0508	4.6861	1.4666	1.4964
#1	.00108	.00395	.00407	.00168	.00601	.00758	.34618	.10263
#2	.00091	.00369	.00350	.00171	.00567	.00813	.35243	.10574
#3	.00100	.00389	.00372	.00189	.00575	.00829	.35641	.10440

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	**.01278**	**.12508**	**.00222**	**.02219**	**.01165**	**.00024**	**.00951**	**.03015**
Stddev	.00025	.00067	.00004	.00013	.00017	.00003	.00075	.00105
%RSD	1.9590	.53771	2.0066	.60179	1.4324	10.438	7.8508	3.4904
#1	.01261	.12438	.00220	.02224	.01184	.00021	.00908	.02906
#2	.01267	.12572	.00219	.02204	.01153	.00026	.01038	.03116
#3	.01307	.12515	.00227	.02230	.01158	.00024	.00909	.03024

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	**.02574**	**.00109**	**.00971**	**.00496**	**.06683**	**.00394**	**.13658**	**.08463**
Stddev	.00032	.00017	.00012	.00045	.00025	.00014	.00018	.00011
%RSD	1.2525	15.633	1.2464	9.1437	.38018	3.6410	.13344	.12681
#1	.02612	.00126	.00963	.00445	.06698	.00378	.13661	.08474
#2	.02556	.00109	.00984	.00510	.06696	.00400	.13638	.08463
#3	.02556	.00092	.00964	.00533	.06653	.00404	.13674	.08453

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	**.00529**	**.01321**	**.00086**	**-.00046**	**.00118**	**.02850**	**.15424**
Stddev	.00004	.00127	.00002	.00003	.00002	.00470	.00107
%RSD	.73273	9.6111	2.8418	6.4837	1.8593	16.498	.69594
#1	.00532	.01440	.00088	-.00046	.00120	.03104	.15431
#2	.00531	.01187	.00084	-.00044	.00116	.03139	.15313
#3	.00525	.01336	.00088	-.00050	.00117	.02308	.15528

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: S1 Acquired: 9/30/2025 12:56:10 Type: Cal
Method: 6010-200.7 NEW(v228) 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	7079.7	83069.	4782.4	5398.7	8355.7
Stddev	10.3	63.	5.5	23.4	5.7
%RSD	.14580	.07533	.11400	.43310	.06768
#1	7072.8	82997.	4778.0	5387.4	8351.4
#2	7091.5	83110.	4788.5	5383.1	8362.1
#3	7074.7	83101.	4780.8	5425.6	8353.6

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: S2 Acquired: 9/30/2025 13:00:22 Type: Cal
Method: 6010-200.7 NEW(v228) 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	.03649	.06372	.19352	.04428	.07055	.13012	2.8567	.67245	.89549
Stddev	.00017	.00167	.00008	.00020	.00021	.00173	.0065	.00173	.00068
%RSD	.46353	2.6258	.03936	.46164	.29479	1.3332	.22643	.25666	.07596
#1	.03651	.06183	.19360	.04406	.07070	.13202	2.8641	.67206	.89474
#2	.03665	.06434	.19348	.04447	.07064	.12972	2.8535	.67096	.89564
#3	.03632	.06500	.19347	.04432	.07032	.12862	2.8524	.67434	.89608

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	.24197	.03332	.28603	.09720	.00166	.17714	.05618	.26002	.04314
Stddev	.00081	.00003	.00005	.00033	.00003	.00136	.00091	.00028	.00004
%RSD	.33440	.10249	.01611	.33551	1.9232	.76750	1.6263	.10823	.09345
#1	.24284	.03328	.28598	.09737	.00163	.17868	.05689	.25975	.04314
#2	.24182	.03334	.28603	.09741	.00169	.17609	.05650	.26031	.04311
#3	.24125	.03335	.28607	.09683	.00164	.17666	.05515	.26000	.04319

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	.01862	.05097	.64048	.00918	.96615	.33970	.09336	.22489	.00174
Stddev	.00019	.00090	.00245	.00007	.00339	.00097	.00010	.00079	.00003
%RSD	1.0015	1.7700	.38217	.73906	.35072	.28456	.10644	.35250	1.9215
#1	.01865	.05161	.64325	.00922	.96795	.33978	.09333	.22576	.00173
#2	.01879	.05135	.63959	.00910	.96224	.33869	.09346	.22470	.00178
#3	.01842	.04994	.63860	.00922	.96826	.34062	.09327	.22421	.00172

Elem	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.04621	.02210	.61901	5.6684
Stddev	.00012	.00017	.00328	.0052
%RSD	.25357	.77526	.53044	.09203
#1	.04616	.02191	.62132	5.6742
#2	.04612	.02215	.62046	5.6641
#3	.04634	.02224	.61525	5.6668

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: S2 Acquired: 9/30/2025 13:00:22 Type: Cal
Method: 6010-200.7 NEW(v228) 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	7055.7	79639.	4766.3	5283.0	8223.0
Stddev	15.6	404.	25.2	38.3	18.8
%RSD	.22152	.50746	.52856	.72475	.22806
#1	7037.7	79286.	4737.3	5254.1	8201.5
#2	7065.8	79550.	4782.7	5268.4	8231.3
#3	7063.6	80080.	4778.9	5326.4	8236.2

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: S3 Acquired: 9/30/2025 13:04:27 Type: Cal
Method: 6010-200.7 NEW(v228) 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	**.11324**	**.16919**	**.60474**	**.13435**	**.21619**	**.40152**	**8.5872**	**2.0544**	**2.8525**
Stddev	.00038	.01010	.00098	.00089	.00040	.00171	.0126	.0203	.0064
%RSD	.33633	5.9686	.16226	.66149	.18393	.42656	.14631	.98818	.22420
#1	.11295	.16080	.60369	.13371	.21614	.40070	8.5900	2.0521	2.8475
#2	.11310	.16636	.60490	.13398	.21583	.40037	8.5982	2.0354	2.8503
#3	.11368	.18039	.60563	.13537	.21662	.40349	8.5735	2.0758	2.8598

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	**.74605**	**.10019**	**.90163**	**.29535**	**.00493**	**.54550**	**.17045**	**.81881**	**.13235**
Stddev	.00137	.00030	.00149	.00031	.00004	.00066	.00136	.00074	.00046
%RSD	.18322	.29963	.16555	.10516	.75236	.12062	.79977	.09013	.34857
#1	.74569	.10049	.89997	.29535	.00497	.54580	.16985	.81796	.13232
#2	.74756	.09989	.90206	.29503	.00494	.54595	.16949	.81931	.13191
#3	.74490	.10018	.90286	.29565	.00490	.54474	.17201	.81917	.13283

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	**.05277**	**.15900**	**1.9225**	**.03181**	**2.9915**	**1.0436**	**.29174**	**.69578**	**.00499**
Stddev	.00052	.00058	.0060	.00026	.0290	.0022	.00100	.00321	.00004
%RSD	.98047	.36629	.30971	.82077	.97082	.21109	.34120	.46150	.79662
#1	.05328	.15871	1.9197	.03173	2.9816	1.0422	.29073	.69832	.00495
#2	.05276	.15967	1.9184	.03211	2.9687	1.0424	.29175	.69217	.00502
#3	.05225	.15862	1.9293	.03160	3.0242	1.0461	.29272	.69685	.00501

Elem	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.15115**	**.06815**	**1.8389**	**17.643**
Stddev	.00147	.00052	.0007	.022
%RSD	.97585	.76130	.03613	.12384
#1	.14998	.06778	1.8382	17.664
#2	.15066	.06793	1.8394	17.644
#3	.15280	.06874	1.8392	17.620

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: S3 Acquired: 9/30/2025 13:04:27 Type: Cal
Method: 6010-200.7 NEW(v228) 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	6897.1	80808.	4679.6	5266.2	7798.4
Stddev	9.5	315.	36.3	9.7	12.7
%RSD	.13733	.38936	.77531	.18351	.16328
#1	6906.9	80464.	4677.3	5255.1	7810.7
#2	6896.5	81081.	4717.0	5272.6	7799.1
#3	6888.0	80881.	4644.5	5270.9	7785.3

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: S4 Acquired: 9/30/2025 13:08:28 Type: Cal
Method: 6010-200.7 NEW(v228) 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	.22776	.32845	1.2370	.26914	.43086	.79621	16.947	4.0461	5.8536
Stddev	.00047	.00254	.0017	.00113	.00140	.00380	.102	.0344	.0063
%RSD	.20637	.77316	.13446	.41994	.32411	.47781	.60247	.85048	.10763
#1	.22724	.32598	1.2351	.26786	.43043	.79439	17.022	4.0063	5.8463
#2	.22790	.33105	1.2375	.27001	.42974	.80058	16.988	4.0663	5.8570
#3	.22815	.32833	1.2383	.26954	.43243	.79366	16.830	4.0655	5.8574

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	1.4772	.19535	1.8390	.58507	.00957	1.0820	.33546	1.6731	.26072
Stddev	.0044	.00066	.0024	.00096	.00009	.0072	.00038	.0017	.00039
%RSD	.29669	.33664	.13007	.16329	.96534	.66411	.11354	.10207	.15102
#1	1.4736	.19466	1.8367	.58464	.00966	1.0885	.33524	1.6717	.26060
#2	1.4821	.19596	1.8389	.58440	.00956	1.0834	.33525	1.6726	.26117
#3	1.4759	.19543	1.8414	.58616	.00948	1.0743	.33590	1.6750	.26041

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	.10305	.31725	3.7797	.06419	5.9524	2.0723	.59293	1.3846	.00990
Stddev	.00136	.00194	.0127	.00042	.0478	.0035	.00097	.0074	.00003
%RSD	1.3164	.61082	.33597	.65305	.80364	.16687	.16430	.53458	.34569
#1	.10439	.31927	3.7852	.06466	5.8976	2.0683	.59189	1.3880	.00994
#2	.10308	.31707	3.7652	.06406	5.9859	2.0745	.59382	1.3897	.00987
#3	.10168	.31540	3.7887	.06385	5.9737	2.0741	.59310	1.3761	.00989

Elem	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.31571	.14097	3.5817	35.305
Stddev	.00161	.00047	.0157	.310
%RSD	.51043	.33288	.43857	.87688
#1	.31440	.14055	3.5888	35.022
#2	.31751	.14148	3.5926	35.257
#3	.31523	.14090	3.5637	35.636

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: S4 Acquired: 9/30/2025 13:08:28 Type: Cal
Method: 6010-200.7 NEW(v228) 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	6743.9	81486.	4634.2	5287.1	7417.0
Stddev	17.7	459.	19.6	29.4	21.8
%RSD	.26177	.56315	.42342	.55624	.29423
#1	6732.1	81075.	4649.3	5260.2	7399.1
#2	6735.5	81400.	4612.0	5318.5	7410.8
#3	6764.2	81981.	4641.4	5282.5	7441.3

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: S5 Acquired: 9/30/2025 13:12:33 Type: Cal
Method: 6010-200.7 NEW(v228) 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	**.46107**	**.68444**	**2.5701**	**.54371**	**.87074**	**1.6302**	**34.192**	**8.1381**	**12.101**
Stddev	.00045	.02902	.0033	.00126	.00058	.0062	.064	.1324	.012
%RSD	.09707	4.2403	.12723	.23178	.06649	.38174	.18774	1.6268	.09799
#1	.46159	.65755	2.5739	.54324	.87105	1.6278	34.242	8.2744	12.114
#2	.46082	.71521	2.5679	.54514	.87008	1.6373	34.215	8.0100	12.094
#3	.46081	.68056	2.5686	.54276	.87111	1.6255	34.120	8.1300	12.093

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	**2.9933**	**.39359**	**3.8130**	**1.1757**	**.01935**	**2.1882**	**.68563**	**3.4647**	**.52858**
Stddev	.0123	.00163	.0065	.0006	.00028	.0097	.00202	.0063	.00074
%RSD	.41035	.41297	.16954	.04905	1.4686	.44363	.29471	.18128	.14050
#1	2.9880	.39546	3.8200	1.1756	.01916	2.1864	.68578	3.4720	.52944
#2	3.0074	.39278	3.8073	1.1751	.01967	2.1986	.68757	3.4611	.52820
#3	2.9846	.39253	3.8116	1.1762	.01921	2.1795	.68354	3.4610	.52811

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	**.21132**	**.65117**	**7.6817**	**.13417**	**12.000**	**4.2150**	**1.2260**	**2.8127**	**.02107**
Stddev	.00287	.00295	.0207	.00217	.186	.0018	.0014	.0089	.00032
%RSD	1.3582	.45300	.26905	1.6200	1.5542	.04177	.11640	.31447	1.4977
#1	.20888	.65090	7.7009	.13234	12.186	4.2149	1.2277	2.8151	.02075
#2	.21448	.65424	7.6846	.13657	11.813	4.2168	1.2253	2.8202	.02138
#3	.21060	.64836	7.6598	.13359	12.000	4.2132	1.2252	2.8029	.02109

Elem	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.65970**	**.29542**	**7.2482**	**70.881**
Stddev	.00152	.00081	.0244	.717
%RSD	.23076	.27503	.33645	1.0118
#1	.65959	.29474	7.2476	71.710
#2	.66127	.29632	7.2729	70.459
#3	.65823	.29520	7.2241	70.476

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: S5 Acquired: 9/30/2025 13:12:33 Type: Cal
Method: 6010-200.7 NEW(v228) 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	6683.1	81028.	4596.9	5207.6	7159.9
Stddev	4.4	485.	31.3	36.1	7.2
%RSD	.06513	.59834	.68074	.69361	.10086
#1	6686.6	81445.	4566.0	5228.3	7153.7
#2	6684.6	80496.	4628.6	5165.8	7167.9
#3	6678.2	81143.	4596.2	5228.5	7158.2

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: ICV01 Acquired: 9/30/2025 13:16:46 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**3.951011**	**3.913948**	**3.826835**	**3.952091**	**4.050187**	**7.666076**
Stddev	.001652	.104239	.012221	.008904	.009602	.027174
%RSD	.0418053	2.663260	.3193517	.2253010	.2370868	.3544770
#1	3.949319	3.867485	3.812724	3.959772	4.039782	7.642171
#2	3.951092	4.033339	3.833956	3.954170	4.052069	7.660427
#3	3.952620	3.841021	3.833827	3.942332	4.058708	7.695631

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.853175**	**.1982865**	**1.955284**	**19.31219**	**.8032962**	**1.951079**
Stddev	.030600	.0010963	.005524	.10486	.0018746	.004529
%RSD	.3896542	.5528958	.2825401	.5429949	.2333651	.2321519
#1	7.817906	.1982590	1.948907	19.21462	.8016944	1.945856
#2	7.872667	.1993963	1.958581	19.29888	.8028362	1.953920
#3	7.868951	.1972042	1.958366	19.42308	.8053580	1.953463

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9906780**	**4.108054**	**1.951098**	**19.31132**	**1.952778**	**1.072075**
Stddev	.0030172	.046537	.008663	.09311	.004682	.002036
%RSD	.3045576	1.132815	.4440292	.4821633	.2397682	.1898863
#1	.9873185	4.067214	1.942072	19.21527	1.947396	1.070257
#2	.9915587	4.098230	1.951875	19.31751	1.955910	1.074274
#3	.9931569	4.158719	1.959346	19.40119	1.955029	1.071694

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**20.17494**	**1.930885**	**1.981650**	**20.26278**	**3.895854**	**4.003560**
Stddev	.15258	.011741	.010312	.29334	.019708	.003658
%RSD	.7562776	.6080561	.5203975	1.447685	.5058713	.0913674
#1	20.07275	1.922885	1.979289	20.06960	3.899917	3.999580
#2	20.10175	1.925407	1.972722	20.11841	3.913214	4.004325
#3	20.35033	1.944364	1.992937	20.60033	3.874431	4.006775

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: ICV01 Acquired: 9/30/2025 13:16:46 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**3.990352**	**3.985363**	**4.029714**	F **.0072853**	**4.051445**	**3.803753**
Stddev	.006192	.013332	.061155	.0001980	.008821	.015617
%RSD	.1551798	.3345216	1.517597	2.718266	.2177276	.4105663
#1	3.983249	3.969984	3.971935	.0073834	4.042079	3.786440
#2	3.993198	3.992446	4.023444	.0070574	4.059596	3.816778
#3	3.994610	3.993658	4.093762	.0074151	4.052660	3.808041

Elem	Sr4077
Units	ppm
Avg	**4.047692**
Stddev	.012043
%RSD	.2975322
#1	4.033814
#2	4.055396
#3	4.053868

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7006.226**	**80043.41**	**4801.610**	**5350.339**	**7729.839**
Stddev	5.153	312.65	17.297	36.846	11.636
%RSD	.0735493	.3905963	.3602365	.6886728	.1505275
#1	7003.823	80311.24	4806.125	5370.048	7728.474
#2	7002.713	80119.14	4782.503	5373.139	7718.946
#3	7012.141	79699.86	4816.201	5307.830	7742.096

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3233-01MSD Acquired: 9/30/2025 20:06:22 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.8333599**	**2.080061**	**.9716368**	**2.132392**	**.8187646**	**2.098495**
Stddev	.0021840	.043350	.0023416	.008746	.0031894	.015166
%RSD	.2620714	2.084077	.2409918	.4101583	.3895428	.7226935
#1	.8333960	2.031593	.9722395	2.123038	.8222571	2.080993
#2	.8355256	2.115127	.9736181	2.133773	.8160062	2.106732
#3	.8311580	2.093464	.9690528	2.140366	.8180306	2.107759

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2153364**	**.1925347**	**.2022994**	**359.1590**	**.3967903**	**.2201317**
Stddev	.0029573	.0019630	.0003994	1.4612	.0004371	.0007325
%RSD	1.373320	1.019569	.1974546	.4068450	.1101682	.3327598
#1	.2186020	.1940960	.2019065	360.6332	.3962856	.2195697
#2	.2128392	.1903310	.2027051	359.1326	.3970356	.2209601
#3	.2145681	.1931773	.2022864	357.7112	.3970497	.2198653

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2946388**	**2.984328**	**.1957261**	**1.921132**	**.5119941**	**.0717581**
Stddev	.0008912	.040485	.0007669	.069086	.0014756	.0010028
%RSD	.3024582	1.356591	.3918406	3.596108	.2882130	1.397521
#1	.2936271	2.947376	.1966099	1.931249	.5115767	.0715356
#2	.2953076	3.027602	.1953320	1.984602	.5136335	.0708852
#3	.2949816	2.978006	.1952363	1.847546	.5107722	.0728535

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**358.3393**	**.2908578**	**.2107080**	**67.14119**	**.4290283**	**.4250926**
Stddev	4.4905	.0047162	.0003465	.71311	.0042524	.0001996
%RSD	1.253154	1.621465	.1644477	1.062110	.9911601	.0469545
#1	360.7525	.2888845	.2103705	66.50134	.4317013	.4249250
#2	361.1073	.2874489	.2106906	67.90998	.4241248	.4250392
#3	353.1581	.2962401	.2110629	67.01227	.4312589	.4253134

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3233-01MSD Acquired: 9/30/2025 20:06:22 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.7239274	.1830646	2.252130	6.732746	F 61.75186	.1477096
Stddev	.0007638	.0024326	.026539	.019203	.23097	.0033220
%RSD	.1055013	1.328833	1.178376	.2852167	.3740241	2.249015
#1	.7246276	.1837994	2.224011	6.711520	61.49088	.1514808
#2	.7231129	.1850452	2.255639	6.737808	61.92991	.1452165
#3	.7240418	.1803493	2.276739	6.748912	61.83480	.1464313

Elem	Sr4077
Units	ppm
Avg	2.979147
Stddev	.012794
%RSD	.4294678
#1	2.993921
#2	2.971804
#3	2.971718

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6948.956	83739.73	4865.597	5439.080	7284.061
Stddev	7.402	426.22	39.937	37.434	13.092
%RSD	.1065247	.5089849	.8208021	.6882387	.1797314
#1	6950.274	83829.91	4820.784	5438.151	7283.870
#2	6940.983	83275.64	4897.427	5402.119	7271.066
#3	6955.611	84113.65	4878.579	5476.970	7297.247

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: LLICV01 Acquired: 9/30/2025 13:22:39 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0232983**	**.0402595**	**.0109582**	**.0239826**	**.0552267**	**.1179750**	**.1037345**
Stddev	.0025143	.0019549	.0015129	.0015075	.0005708	.0409036	.0046998
%RSD	10.79197	4.855711	13.80590	6.285670	1.033542	34.67143	4.530588
#1	.0221311	.0413539	.0115205	.0234337	.0551224	.1011228	.1045341
#2	.0261841	.0414220	.0121094	.0228264	.0558424	.0881897	.0986862
#3	.0215796	.0380025	.0092447	.0256875	.0547152	.1646125	.1079831

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0065924**	**.0058689**	**2.089524**	**.0097833**	**.0297881**	**.0218742**	**.0856584**
Stddev	.0000911	.0000762	.025395	.0008448	.0000706	.0001900	.0105075
%RSD	1.382380	1.298448	1.215341	8.635190	.2369351	.8686726	12.26670
#1	.0064913	.0058135	2.118191	.0106286	.0297602	.0216909	.0815757
#2	.0066683	.0059558	2.080535	.0097821	.0298683	.0220702	.0778050
#3	.0066177	.0058374	2.069847	.0089390	.0297357	.0218614	.0975945

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0212289**	**2.182672**	**.0397242**	**.0107743**	**1.940276**	**.0369734**	**.0426631**
Stddev	.0006001	.037711	.0004481	.0008954	.025402	.0023293	.0003283
%RSD	2.826627	1.727763	1.128017	8.310244	1.309190	6.299913	.7695376
#1	.0208786	2.140787	.0399397	.0097508	1.911253	.0396232	.0423163
#2	.0208864	2.213928	.0392091	.0114127	1.958463	.0352491	.0427038
#3	.0219218	2.193302	.0400238	.0111593	1.951112	.0360478	.0429691

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.791208**	**.1149595**	**.2010682**	**.0395374**	**.0403292**	**.3579433**	**.0187447**
Stddev	.107452	.0007956	.0002289	.0010117	.0062965	.0178292	.0014707
%RSD	5.998867	.6921124	.1138475	2.558943	15.61263	4.981003	7.845780
#1	1.762508	.1151973	.2013061	.0407020	.0368623	.3577558	.0184627
#2	1.701020	.1140721	.2008495	.0388756	.0475972	.3758654	.0174355
#3	1.910096	.1156092	.2010492	.0390345	.0365282	.3402086	.0203359

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: LLICV01 Acquired: 9/30/2025 13:22:39 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0229773	.0225359	.0213062
Stddev	.0056950	.0032587	.0002183
%RSD	24.78553	14.46005	1.024573
#1	.0168736	.0211693	.0211060
#2	.0281486	.0201829	.0212735
#3	.0239096	.0262553	.0215390

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7179.048	86468.60	4786.151	5610.779	8379.927
Stddev	8.323	267.77	21.678	30.699	5.670
%RSD	.1159295	.3096774	.4529310	.5471356	.0676664
#1	7182.291	86579.14	4793.355	5583.404	8384.364
#2	7169.592	86663.40	4803.309	5643.970	8373.539
#3	7185.261	86163.25	4761.788	5604.964	8381.879

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: ICB01 Acquired: 9/30/2025 13:32:53 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.0012315**	**-.001117**	**.0001464**	**.0026718**	**.0031289**	**.0092190**	**.0019628**
Stddev	.0007367	.002011	.0014168	.0019354	.0016218	.0210602	.0014538
%RSD	59.82165	180.1188	967.9676	72.43958	51.83295	228.4435	74.06922
#1	.0016642	.001113	.0017620	.0040503	.0015875	.0301792	.0023228
#2	.0016493	-.001669	-.000439	.0035059	.0048206	-.011940	.0003628
#3	.0003809	-.002794	-.000884	.0004592	.0029785	.009418	.0032028

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000149**	**-.000008**	**-.005687**	**-.000456**	**-.000189**	**-.000023**	**-.001264**
Stddev	.000069	.000156	.019067	.000619	.000251	.000171	.009040
%RSD	46.33332	2066.332	335.2990	135.7546	132.7694	753.8573	715.3131
#1	-.000142	-.000165	-.018375	-.000451	-.000055	-.000035	.004197
#2	-.000084	-.000004	-.014924	.000160	-.000479	.000154	.003710
#3	-.000222	.000146	.016240	-.001077	-.000033	-.000187	-.011698

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000038**	**-.026730**	**-.000448**	**-.000176**	**-.164613**	**.0015818**	**.0002720**
Stddev	.000198	.050031	.000354	.000650	.024992	.0037105	.0002675
%RSD	526.1525	187.1695	79.02161	368.8226	15.18257	234.5685	98.34552
#1	.000067	.030927	-.000649	.000561	-.181475	.0035917	.0002269
#2	.000086	-.052425	-.000039	-.000668	-.135899	-.002700	.0000299
#3	-.000266	-.058693	-.000657	-.000422	-.176464	.003854	.0005592

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.406113**	**.0054035**	**-.000049**	**-.001403**	**.0021342**	**.0142283**	**-.000888**
Stddev	.080366	.0014917	.000280	.000658	.0011624	.0365487	.000130
%RSD	19.78900	27.60671	574.6134	46.88387	54.46465	256.8734	14.59511
#1	-.476279	.0043949	.000254	-.001504	.0029501	.0550202	-.000791
#2	-.318435	.0046987	-.000102	-.000701	.0008033	.0032038	-.000839
#3	-.423624	.0071171	-.000297	-.002005	.0026491	-.015539	-.001036

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: ICB01 Acquired: 9/30/2025 13:32:53 Type: Unk
Method: 6010-200.7 NEW(v228) 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	-.000036	-.009673	.0001032
Stddev	.001832	.003645	.0001481
%RSD	5092.570	37.68803	143.5184
#1	.000101	-.011422	.0002642
#2	.001724	-.012114	-.000027
#3	-.001933	-.005482	.000073

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7178.889	84103.88	4779.011	5560.458	8503.323
Stddev	25.485	500.92	14.444	40.560	26.691
%RSD	.3550038	.5955978	.3022398	.7294435	.3138868
#1	7178.075	83559.89	4770.907	5516.021	8513.694
#2	7153.820	84205.67	4795.687	5595.489	8473.003
#3	7204.772	84546.10	4770.438	5569.866	8523.271

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CRI01 Acquired: 9/30/2025 13:39:33 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.0223359**	**.0406443**	**.0133051**	**.0226435**	**.0525587**	**.1201967**	**.1006270**
Stddev	.0032101	.0045393	.0021139	.0012180	.0017039	.0145820	.0047483
%RSD	14.37184	11.16842	15.88794	5.378795	3.241965	12.13177	4.718679
#1	.0248828	.0392652	.0127282	.0222515	.0536230	.1097924	.1061085
#2	.0233947	.0369544	.0115395	.0240092	.0534597	.1368638	.0977837
#3	.0187301	.0457132	.0156475	.0216698	.0505934	.1139337	.0979887

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0063693**	**.0058112**	**2.104422**	**.0096585**	**.0294817**	**.0216447**	**.0992602**
Stddev	.0001154	.0001348	.046254	.0004052	.0001653	.0010162	.0061981
%RSD	1.812495	2.319784	2.197955	4.194926	.5606785	4.694952	6.244268
#1	.0064189	.0058898	2.156878	.0091953	.0295998	.0222260	.1010651
#2	.0064518	.0056556	2.069492	.0098332	.0292928	.0222368	.0923600
#3	.0062374	.0058883	2.086896	.0099470	.0295526	.0204713	.1043556

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0209886**	**2.134469**	**.0395603**	**.0100912**	**1.877220**	**.0375684**	**.0420566**
Stddev	.0006036	.024797	.0001917	.0004119	.046463	.0041157	.0002600
%RSD	2.875641	1.161722	.4845074	4.081736	2.475089	10.95534	.6181040
#1	.0203764	2.137376	.0393817	.0105540	1.824456	.0392199	.0423483
#2	.0210063	2.157684	.0397628	.0099550	1.912016	.0328834	.0418494
#3	.0215831	2.108347	.0395363	.0097647	1.895187	.0406019	.0419722

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.664297**	**.1074997**	**.2004120**	**.0382936**	**.0401939**	**.3580633**	**.0196495**
Stddev	.009195	.0002929	.0007705	.0007956	.0012211	.0188964	.0008798
%RSD	.5525025	.2724481	.3844627	2.077528	3.038091	5.277396	4.477481
#1	1.662938	.1078278	.2002258	.0377769	.0403304	.3372091	.0204656
#2	1.655856	.1074068	.1997516	.0378941	.0389103	.3629312	.0187175
#3	1.674096	.1072646	.2012585	.0392097	.0413411	.3740494	.0197655

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CRI01 Acquired: 9/30/2025 13:39:33 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.0201397	.0170922	.0213048
Stddev	.0014824	.0051590	.0001234
%RSD	7.360809	30.18336	.5791265
#1	.0205435	.0127616	.0214404
#2	.0184972	.0157151	.0211991
#3	.0213784	.0228001	.0212749

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7185.425	87537.17	4824.337	5638.811	8405.145
Stddev	30.213	50.01	3.690	21.084	38.095
%RSD	.4204704	.0571334	.0764912	.3739059	.4532321
#1	7184.665	87532.77	4820.253	5646.558	8407.938
#2	7216.011	87589.24	4827.431	5654.926	8441.766
#3	7155.600	87489.50	4825.326	5614.950	8365.730

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: ICSA01 Acquired: 9/30/2025 13:44:20 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0050118**	**-.004322**	**-.006577**	**.0054369**	**.0033989**	**245.9513**	**.0076335**
Stddev	.0023172	.002071	.001369	.0024838	.0040712	.3509	.0019738
%RSD	46.23483	47.91031	20.81003	45.68450	119.7806	.1426796	25.85751
#1	.0058478	-.002201	-.005149	.0030901	-.001242	246.3431	.0055079
#2	.0023926	-.006339	-.006706	.0051824	.006368	245.8446	.0079840
#3	.0067950	-.004427	-.007877	.0080382	.005070	245.6660	.0094086

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0021244**	**-.002074**	**238.8712**	**.0489873**	**-.000145**	**.0007707**	**102.4454**
Stddev	.0000701	.000044	.1386	.0001098	.000521	.0013831	.8059
%RSD	3.298935	2.112463	.0580385	.2241854	358.4142	179.4477	.7866837
#1	.0021880	-.002030	239.0216	.0488624	.000451	.0006357	102.5273
#2	.0021358	-.002118	238.8434	.0490688	-.000511	-.000540	103.2073
#3	.0020493	-.002073	238.7485	.0490307	-.000375	.002216	101.6017

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0064171**	**251.0940**	**.0035592**	**-.000092**	**.0328307**	**.0054742**	**.0009814**
Stddev	.0015377	.0697	.0001268	.000297	.0387667	.0035101	.0005425
%RSD	23.96321	.0277478	3.562000	322.2305	118.0806	64.12038	55.28095
#1	.0046416	251.1371	.0035029	-.000031	-.006480	.0082256	.0005008
#2	.0073230	251.0136	.0037044	-.000415	.033943	.0066759	.0008737
#3	.0072867	251.1312	.0034703	.000170	.071029	.0015211	.0015697

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0672188**	**.0416322**	**-.000045**	**-.003862**	**-.003292**	**.0348087**	**.0040737**
Stddev	.0103584	.0033266	.000533	.000920	.003790	.0157882	.0031967
%RSD	15.40989	7.990482	1193.019	23.82288	115.1311	45.35710	78.47326
#1	.0790807	.0412321	.000283	-.002801	-.007341	.0524308	.0038836
#2	.0626173	.0451408	-.000659	-.004347	-.002703	.0219523	.0009762
#3	.0599585	.0385237	.000242	-.004439	.000169	.0300429	.0073612

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: ICSA01 Acquired: 9/30/2025 13:44:20 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001094	-.006592	.0031826
Stddev	.003056	.002037	.0002950
%RSD	279.3657	30.89698	9.269497
#1	-.003351	-.008032	.0032124
#2	.002384	-.004262	.0028739
#3	-.002314	-.007484	.0034617

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6726.878	78407.35	4708.272	5241.438	7170.565
Stddev	10.019	363.95	14.804	51.677	11.286
%RSD	.1489404	.4641816	.3144334	.9859227	.1573971
#1	6735.913	78231.86	4691.558	5216.345	7175.686
#2	6728.619	78164.39	4713.523	5207.100	7178.382
#3	6716.103	78825.79	4719.735	5300.870	7157.626

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: ICSAB01 Acquired: 9/30/2025 13:56:31 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.1108445**	**.1075877**	**.0388968**	**.0566945**	**.5994523**	**236.9084**
Stddev	.0020140	.0042659	.0007293	.0031409	.0026174	.1963
%RSD	1.816939	3.965050	1.875044	5.540093	.4366356	.0828739
#1	.1106040	.1053635	.0390422	.0531914	.5965397	236.7364
#2	.1129679	.1125061	.0381057	.0576324	.6002097	237.1223
#3	.1089616	.1048936	.0395425	.0592596	.6016076	236.8664

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4957167**	**.4906645**	**.9796104**	**230.3162**	**.5503526**	**.4890561**
Stddev	.0017534	.0038462	.0027556	.4575	.0004137	.0017867
%RSD	.3537015	.7838730	.2812912	.1986238	.0751692	.3653474
#1	.4977349	.4946153	.9767881	229.9243	.5500403	.4874646
#2	.4948470	.4869323	.9797489	230.8189	.5508218	.4887148
#3	.4945682	.4904459	.9822940	230.2055	.5501957	.4909889

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4690298**	**101.4360**	**.4948959**	**241.6779**	**.9783926**	**.2061131**
Stddev	.0007655	.8388	.0013172	.4210	.0046368	.0009215
%RSD	.1632162	.8269605	.2661625	.1742122	.4739227	.4470864
#1	.4692400	100.6380	.4962804	241.3802	.9735344	.2056357
#2	.4681811	102.3104	.4947491	242.1596	.9788728	.2055282
#3	.4696683	101.3596	.4936583	241.4938	.9827706	.2071753

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0965905**	**.4833760**	**1.000454**	**-.159716**	**.9625347**	**1.005236**
Stddev	.0386770	.0063707	.002470	.069885	.0093695	.015577
%RSD	40.04219	1.317950	.2468448	43.75576	.9734162	1.549541
#1	.1011747	.4895462	1.001747	-.239401	.9733475	.988721
#2	.1327711	.4768222	1.002009	-.108841	.9574424	1.007323
#3	.0558258	.4837597	.997607	-.130907	.9568141	1.019664

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: ICSAB01 Acquired: 9/30/2025 13:56:31 Type: Unk
Method: 6010-200.7 NEW(v228) 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	1.024798	.9826908	.9489267	F .0070675	1.038237	1.024561
Stddev	.022363	.0064251	.0167099	.0006621	.034123	.018427
%RSD	2.182166	.6538268	1.760923	9.367667	3.286608	1.798565
#1	1.002404	.9874105	.9617917	.0073649	.999311	1.039188
#2	1.024860	.9852884	.9549476	.0075288	1.052414	1.030629
#3	1.047130	.9753736	.9300407	.0063089	1.062986	1.003864

Elem	Sr4077
Units	ppm
Avg	.9967437
Stddev	.0242791
%RSD	2.435839
#1	1.018064
#2	1.001850
#3	.970318

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6767.666	77774.87	4811.428	5179.201	7223.103
Stddev	20.623	138.68	40.912	13.677	13.180
%RSD	.3047311	.1783079	.8503193	.2640680	.1824643
#1	6747.347	77860.92	4771.610	5163.415	7209.126
#2	6767.070	77848.80	4853.354	5186.716	7224.875
#3	6788.581	77614.89	4809.320	5187.473	7235.306

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: ICSADLX20 Acquired: 9/30/2025 14:00:32 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.001198**	**-.001569**	**-.000951**	**.0047626**	**.0021778**	**12.29642**	**.0002861**
Stddev	.001263	.003711	.000661	.0011669	.0011496	.08289	.0012502
%RSD	105.3659	236.5365	69.50003	24.50024	52.78793	.6741046	436.9308
#1	-.002377	.002697	-.001551	.0040980	.0014082	12.28243	.0010524
#2	.000134	-.004058	-.000242	.0040799	.0016259	12.22141	.0009626
#3	-.001353	-.003346	-.001059	.0061099	.0034993	12.38542	-.001157

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000528**	**-.000233**	**12.15025**	**.0022576**	**-.000381**	**.0005422**	**5.014528**
Stddev	.0000873	.000075	.07243	.0006528	.000108	.0006697	.047330
%RSD	165.3991	32.27969	.5960992	28.91356	28.29010	123.5099	.9438577
#1	-.000047	-.000146	12.17998	.0022057	-.000281	.0010670	4.976690
#2	.000115	-.000280	12.06769	.0016324	-.000495	-.000212	5.067599
#3	.000090	-.000272	12.20308	.0029348	-.000367	.000772	4.999294

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001199**	**12.84705**	**.0001524**	**-.000370**	**-.111453**	**.0027785**	**.0000658**
Stddev	.0002549	.07500	.0001425	.000716	.032399	.0028094	.0002287
%RSD	212.5735	.5837790	93.47600	193.3964	29.06972	101.1085	347.3754
#1	.0003416	12.82661	-.000008	-.000444	-.107370	.0053670	.0000178
#2	.0001769	12.93015	.000264	-.001047	-.145700	-.000209	-.000135
#3	-.000159	12.78439	.000202	.000380	-.081289	.003178	.000315

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.280386**	**.0001796**	**.0001864**	**.0153800**	**-.001066**	**.0360170**	**.0103584**
Stddev	.063334	.0004094	.0003400	.0006857	.002724	.0249428	.0008895
%RSD	22.58808	227.9956	182.3685	4.458260	255.5943	69.25263	8.587614
#1	-.328791	-.000276	.0005489	.0155808	.000840	.0461603	.0113383
#2	-.208708	.000517	.0001356	.0159429	.000149	.0542901	.0096018
#3	-.303657	.000297	-.000125	.0146163	-.004186	.0076007	.0101351

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: ICSADLX20 Acquired: 9/30/2025 14:00:32 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.0029370	-.008873	.0000273
Stddev	.0024555	.002656	.0000352
%RSD	83.60599	29.93751	129.0963
#1	.0040187	-.006154	.0000211
#2	.0046660	-.011462	.0000651
#3	.0001264	-.009003	-.000004

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7198.100	83175.04	4842.447	5523.442	8433.716
Stddev	7.848	270.87	25.974	42.538	3.230
%RSD	.1090230	.3256684	.5363904	.7701375	.0382950
#1	7192.105	83296.27	4823.761	5510.180	8430.178
#2	7195.212	82864.72	4872.107	5489.115	8434.463
#3	7206.982	83364.12	4831.473	5571.031	8436.506

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: ICSABDLX20 Acquired: 9/30/2025 14:04:49 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.0061095	.0033431	.0014188	.0084315	.0323723	12.09964	.0221667
Stddev	.0004438	.0010426	.0009054	.0006748	.0017260	.05327	.0014694
%RSD	7.264641	31.18640	63.81279	8.003542	5.331744	.4402948	6.628661
#1	.0063859	.0045013	.0021194	.0077893	.0306354	12.12774	.0236534
#2	.0063450	.0030483	.0003965	.0091348	.0323942	12.03820	.0207153
#3	.0055975	.0024796	.0017404	.0083705	.0340872	12.13299	.0221315

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0254069	.0461752	11.94449	.0275446	.0230867	.0253371	4.897296
Stddev	.0002331	.0000638	.04567	.0002262	.0004067	.0003108	.040130
%RSD	.9176429	.1381925	.3823828	.8211022	1.761479	1.226634	.8194270
#1	.0253279	.0461272	11.98112	.0277578	.0233422	.0255675	4.937644
#2	.0252234	.0461507	11.89332	.0273073	.0226178	.0254603	4.896857
#3	.0256692	.0462476	11.95904	.0275686	.0233002	.0249837	4.857388

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0245788	12.60802	.0468843	.0095496	-.096257	.0228643	.0501719
Stddev	.0013005	.05121	.0003502	.0010940	.014881	.0002231	.0002219
%RSD	5.291259	.4061561	.7470063	11.45559	15.45938	.9755915	.4421738
#1	.0239333	12.64986	.0468653	.0090581	-.083238	.0226185	.0499165
#2	.0237274	12.55091	.0472436	.0108031	-.112479	.0229207	.0502827
#3	.0260758	12.62327	.0465439	.0087876	-.093055	.0230539	.0503166

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.452518	.0463785	.0491823	.0622754	.0476536	.0417147	-.000237
Stddev	.056525	.0016362	.0002112	.0003587	.0010909	.0217996	.001541
%RSD	12.49124	3.527858	.4294714	.5759456	2.289262	52.25881	651.4597
#1	-.387349	.0462603	.0490244	.0622102	.0468316	.0272934	.001056
#2	-.488245	.0448046	.0494223	.0626621	.0472379	.0310580	-.001942
#3	-.481959	.0480705	.0491003	.0619537	.0488912	.0667927	.000176

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: ICSABDLX20 Acquired: 9/30/2025 14:04:49 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.0546743	.0366207	.0550075
Stddev	.0031671	.0038109	.0003084
%RSD	5.792631	10.40643	.5607128
#1	.0575650	.0356687	.0553632
#2	.0551688	.0333760	.0548455
#3	.0512890	.0408173	.0548138

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7179.784	83265.30	4832.387	5502.269	8377.680
Stddev	10.513	154.75	40.836	13.290	18.438
%RSD	.1464231	.1858471	.8450431	.2415308	.2200812
#1	7179.670	83329.37	4852.935	5516.980	8371.225
#2	7169.329	83377.72	4858.867	5498.696	8363.338
#3	7190.353	83088.81	4785.358	5491.132	8398.478

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCV01 Acquired: 9/30/2025 14:08:56 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**4.911727**	**4.746685**	**4.851628**	**4.923490**	**4.898274**	**9.681292**	**9.811857**
Stddev	.017428	.135370	.010546	.021979	.012325	.033525	.071616
%RSD	.3548252	2.851877	.2173678	.4464010	.2516263	.3462841	.7298893
#1	4.898324	4.653529	4.839814	4.912379	4.890180	9.675164	9.838005
#2	4.905428	4.684560	4.854980	4.909285	4.892183	9.717457	9.866725
#3	4.931429	4.901966	4.860091	4.948806	4.912459	9.651253	9.730842

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2446658**	**2.434748**	**24.38121**	**.9672779**	**2.427398**	**1.225766**	**4.801438**
Stddev	.0010558	.004930	.03541	.0027832	.005053	.001814	.024305
%RSD	.4315438	.2024709	.1452271	.2877387	.2081824	.1479866	.5061930
#1	.2452168	2.429324	24.40396	.9703377	2.421615	1.224462	4.806364
#2	.2453322	2.435965	24.39926	.9665993	2.429609	1.224998	4.822902
#3	.2434485	2.438955	24.34042	.9648968	2.430968	1.227838	4.775048

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.451941**	**24.18207**	**2.432668**	**1.209796**	**23.84991**	**2.432089**	**2.428839**
Stddev	.006908	.04137	.004245	.000474	.22607	.009478	.004759
%RSD	.2817326	.1710762	.1745029	.0392166	.9478870	.3897188	.1959316
#1	2.454921	24.20938	2.427807	1.210304	23.99952	2.440242	2.428480
#2	2.456859	24.13448	2.435644	1.209719	23.96037	2.421689	2.424270
#3	2.444044	24.20237	2.434554	1.209365	23.58985	2.434336	2.433767

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**23.83286**	**4.906625**	**4.856676**	**4.862674**	**4.883112**	**4.652776**	**4.853230**
Stddev	.15777	.016995	.012148	.016618	.022143	.047667	.027158
%RSD	.6619855	.3463673	.2501373	.3417538	.4534546	1.024481	.5595919
#1	23.89929	4.917346	4.849581	4.845631	4.889350	4.628157	4.825746
#2	23.94655	4.915498	4.849745	4.863559	4.901466	4.622452	4.853893
#3	23.65274	4.887029	4.870704	4.878832	4.858519	4.707718	4.880051

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCV01 Acquired: 9/30/2025 14:08:56 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**4.861670**	**4.852396**	**4.852312**
Stddev	.041211	.039146	.055862
%RSD	.8476718	.8067252	1.151246
#1	4.830175	4.856221	4.911516
#2	4.846524	4.889489	4.844884
#3	4.908311	4.811479	4.800535

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6993.712**	**85254.96**	**4793.109**	**5463.024**	**7674.240**
Stddev	18.875	526.02	38.072	19.643	9.431
%RSD	.2698911	.6169937	.7943005	.3595561	.1228914
#1	6980.690	85395.88	4798.004	5473.572	7667.299
#2	7015.359	84672.84	4752.826	5440.361	7684.977
#3	6985.087	85696.17	4828.496	5475.140	7670.444

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCB01 Acquired: 9/30/2025 14:18:07 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.0011857**	**.0004835**	**-.000453**	**.0066679**	**.0010727**	**.0266702**	**.0012725**
Stddev	.0014061	.0029544	.001255	.0039978	.0011206	.0117792	.0013303
%RSD	118.5877	611.1058	276.6508	59.95588	104.4640	44.16591	104.5387
#1	.0026378	.0021537	.000167	.0102822	.0023631	.0382758	.0027763
#2	-.000169	.0022245	.000370	.0023738	.0003439	.0270101	.0007923
#3	.001089	-.002928	-.001897	.0073476	.0005111	.0147248	.0002490

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000076**	**-.000045**	**.1455164**	**-.000063**	**-.000364**	**.0003924**	**.0088538**
Stddev	.000033	.000123	.0167646	.000335	.000258	.0007389	.0025694
%RSD	43.65000	271.8969	11.52077	536.2148	71.01046	188.2855	29.01962
#1	-.000114	-.000141	.1400225	.000307	-.000657	-.000153	.0066904
#2	-.000056	.000093	.1643387	-.000347	-.000169	.001233	.0116937
#3	-.000058	-.000087	.1321881	-.000148	-.000265	.000097	.0081773

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000492**	**.1034821**	**-.000625**	**-.000688**	**.2388481**	**.0071297**	**.0005022**
Stddev	.000673	.0297375	.000246	.000888	.0695447	.0007917	.0001284
%RSD	136.6654	28.73683	39.35615	129.0399	29.11669	11.10463	25.55546
#1	.000211	.0765001	-.000343	-.001362	.3029979	.0064377	.0005096
#2	-.001130	.0985803	-.000737	-.001020	.1649395	.0069583	.0006268
#3	-.000558	.1353659	-.000795	.000318	.2486070	.0079930	.0003704

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.323572**	**-.000731**	**-.000206**	**-.007818**	**.0026821**	**.0204561**	**-.000279**
Stddev	.060949	.001068	.000168	.000232	.0044146	.0061793	.000293
%RSD	18.83616	146.0681	81.39203	2.971862	164.5916	30.20780	104.8312
#1	-.274394	.000359	-.000320	-.008026	-.001764	.0258623	-.000576
#2	-.304563	-.001775	-.000284	-.007567	.007065	.0217859	.000008
#3	-.391760	-.000777	-.000014	-.007859	.002745	.0137201	-.000269

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCB01 Acquired: 9/30/2025 14:18:07 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.0041622	-.001442	-.000228
Stddev	.0032217	.002497	.000244
%RSD	77.40365	173.1380	107.3752
#1	.0062103	-.003267	-.000146
#2	.0004487	-.002465	-.000034
#3	.0058276	.001404	-.000502

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7169.217	85341.41	4792.615	5551.013	8540.807
Stddev	30.288	135.01	19.080	17.562	30.457
%RSD	.4224726	.1582050	.3981131	.3163793	.3566081
#1	7196.807	85413.42	4779.055	5570.405	8572.188
#2	7136.809	85425.15	4784.357	5546.452	8511.366
#3	7174.035	85185.65	4814.433	5536.181	8538.866

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: LR-1 Acquired: 9/30/2025 14:22:17 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.006079**	**.0088558**	**.0150122**	**-.013638**	**.0242739**	**.3084887**	**.0189955**
Stddev	.000725	.0020717	.0016947	.001474	.0027133	.0348950	.0037685
%RSD	11.92353	23.39441	11.28894	10.80944	11.17788	11.31161	19.83920
#1	-.006590	.0109931	.0153969	-.013111	.0255721	.2936859	.0146685
#2	-.006398	.0068565	.0131583	-.012500	.0211554	.2834353	.0207590
#3	-.005249	.0087177	.0164816	-.015304	.0260942	.3483451	.0215589

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008294**	**.0004868**	**2460.887**	**.0340132**	**.0072927**	**.0099432**	**.6281908**
Stddev	.0001121	.0000722	15.822	.0001609	.0001659	.0004340	.0056975
%RSD	13.51090	14.83135	.6429191	.4729754	2.274772	4.364693	.9069696
#1	.0007464	.0005507	2444.166	.0339473	.0074737	.0100001	.6337738
#2	.0009569	.0005014	2462.872	.0338958	.0071479	.0094835	.6223853
#3	.0007850	.0004085	2475.621	.0341966	.0072563	.0103459	.6284132

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0269157**	**2216.865**	**.0279082**	**-.002101**	**2369.018**	**.0146135**	**.0621764**
Stddev	.0017274	6.459	.0004030	.000409	32.469	.0020661	.0005132
%RSD	6.417874	.2913657	1.444176	19.46660	1.370554	14.13825	.8253653
#1	.0289053	2218.592	.0275381	-.001799	2405.459	.0138618	.0627294
#2	.0257980	2209.718	.0278489	-.001938	2343.166	.0130285	.0620844
#3	.0260440	2222.286	.0283376	-.002566	2358.427	.0169502	.0617154

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**16.99552**	**.0068939**	**.0039590**	**-.011399**	**-.085676**	**.0304417**	**.0153763**
Stddev	.98575	.0003513	.0006361	.002591	.004157	.0367048	.0024477
%RSD	5.800076	5.095779	16.06824	22.72591	4.852351	120.5742	15.91850
#1	16.02178	.0070068	.0034845	-.009463	-.088194	-.010758	.0179524
#2	16.97192	.0065001	.0037106	-.014342	-.080878	.059653	.0150952
#3	17.99286	.0071749	.0046818	-.010393	-.087957	.042430	.0130814

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: LR-1 Acquired: 9/30/2025 14:22:17 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.2350183	-.343082	.0612943
Stddev	.0122229	.004689	.0003056
%RSD	5.200817	1.366709	.4986600
#1	.2379300	-.339318	.0615781
#2	.2455225	-.348335	.0613342
#3	.2216026	-.341595	.0609707

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5305.935	64700.35	4557.754	4125.305	5324.508
Stddev	2.141	252.17	10.458	19.379	9.359
%RSD	.0403517	.3897495	.2294593	.4697639	.1757748
#1	5303.696	64411.60	4567.899	4105.347	5320.721
#2	5306.146	64877.21	4558.354	4126.520	5317.635
#3	5307.962	64812.26	4547.008	4144.048	5335.167

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: LR-2 Acquired: 9/30/2025 14:26:41 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.0853286**	**-.287501**	**-.022667**	**.0600565**	**-.206985**	**1802.819**	**.0217321**
Stddev	.0035905	.004547	.003637	.0138768	.005761	6.348	.0006250
%RSD	4.207837	1.581655	16.04423	23.10623	2.783134	.3520900	2.876027
#1	.0889494	-.282608	-.019830	.0592318	-.200506	1809.995	.0214690
#2	.0852673	-.291596	-.021405	.0743273	-.211530	1797.939	.0224457
#3	.0817692	-.288300	-.026767	.0466105	-.208918	1800.523	.0212817

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0545050**	**-.096989**	**8.376985**	**-.271034**	**.0227757**	**2.744618**	**2754.751**
Stddev	.0005454	.001812	.244192	.000586	.0004052	.030442	8.979
%RSD	1.000598	1.868334	2.915033	.2161192	1.779070	1.109152	.3259388
#1	.0549465	-.096929	8.512102	-.271061	.0232277	2.731569	2746.087
#2	.0546732	-.098830	8.523757	-.271605	.0226546	2.722875	2764.014
#3	.0538953	-.095207	8.095097	-.270435	.0224449	2.779409	2754.153

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.253686**	**1.852890**	**.0497667**	**^ *****	**44.61561**	**.0499582**	**-.088245**
Stddev	.002696	.031608	.0012003	-----	.26174	.0063047	.001224
%RSD	1.062652	1.705888	2.411900	-----	.5866588	12.62006	1.386480
#1	-.254839	1.817969	.0508389	^ -----	44.76918	.0459244	-.087694
#2	-.250606	1.879540	.0484700	^ -----	44.31339	.0467266	-.089647
#3	-.255614	1.861162	.0499914	^ -----	44.76426	.0572235	-.087394

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1762.912**	**^ *****	**-.019106**	**-.045520**	**.0076056**	**.5504310**	**.0575479**
Stddev	25.498	-----	.000833	.001398	.0020364	.0260265	.0026912
%RSD	1.446332	-----	4.359745	3.071089	26.77515	4.728379	4.676444
#1	1736.375	^ -----	-.019890	-.044283	.0098614	.5204158	.0544435
#2	1765.135	^ -----	-.018231	-.045242	.0059027	.5641381	.0592200
#3	1787.225	^ -----	-.019197	-.047037	.0070528	.5667391	.0589804

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: LR-2 Acquired: 9/30/2025 14:26:41 Type: Unk
Method: 6010-200.7 NEW(v228) 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	-.446922	.2898202	-2.64155
Stddev	.006213	.0033517	.00874
%RSD	1.390146	1.156464	.3307096
#1	-.447535	.2911908	-2.63299
#2	-.452805	.2922692	-2.65046
#3	-.440425	.2860004	-2.64120

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6373.238	71968.70	4733.630	4944.117	5381.645
Stddev	19.357	127.03	45.110	23.097	16.596
%RSD	.3037257	.1765081	.9529581	.4671627	.3083772
#1	6378.277	72097.06	4705.892	4920.377	5382.219
#2	6389.578	71965.99	4709.316	4945.462	5397.946
#3	6351.860	71843.04	4785.680	4966.512	5364.769

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: PB169831BL Acquired: 9/30/2025 14:46:36 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.001422**	**.0015563**	**.0002898**	**.0024065**	**.0012139**	**.0189310**	**-.001469**
Stddev	.001303	.0033215	.0005898	.0022992	.0031109	.0189944	.001814
%RSD	91.58776	213.4269	203.5365	95.53996	256.2753	100.3349	123.4870
#1	-.000146	.0045233	.0006230	.0038890	-.002220	.0325514	-.000238
#2	-.002750	-.002032	.0006377	-.000242	.002019	.0270087	-.003553
#3	-.001371	.002178	-.000391	.003573	.003843	-.002767	-.000617

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000085**	**-.000124**	**-.006924**	**-.000923**	**-.000438**	**-.000027**	**-.007540**
Stddev	.000020	.000072	.028742	.000648	.000194	.000859	.007359
%RSD	23.43266	58.41799	415.1035	70.22330	44.17652	3228.898	97.60281
#1	-.000090	-.000092	-.002724	-.000452	-.000252	-.000317	-.014918
#2	-.000063	-.000207	-.037535	-.001663	-.000639	-.000702	-.007500
#3	-.000103	-.000073	.019486	-.000655	-.000424	.000940	-.000201

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000307**	**-.028833**	**.0001020**	**-.000217**	**.3616851**	**.0029877**	**-.000177**
Stddev	.000535	.020413	.0003202	.000963	.0365611	.0045390	.000239
%RSD	174.5694	70.79545	313.8937	442.9393	10.10855	151.9226	135.3959
#1	-.000188	-.039093	-.000108	-.000503	.3202738	.0063796	.000064
#2	.000159	-.042081	.000471	-.001005	.3895001	-.002169	-.000180
#3	-.000891	-.005326	-.000056	.000856	.3752815	.004752	-.000414

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6002858**	**-.004550**	**-.000070**	**.0104321**	**-.000622**	**.0146915**	**.0000415**
Stddev	.1190868	.001631	.000386	.0004768	.002569	.0189332	.0012369
%RSD	19.83834	35.84422	554.2493	4.570496	412.7761	128.8719	2982.174
#1	.6064825	-.004141	-.000515	.0108611	-.001962	.0091570	.0012332
#2	.4782217	-.006347	.000166	.0099188	.002340	-.000858	-.001236
#3	.7161533	-.003163	.000140	.0105164	-.002245	.035775	.000127

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: PB169831BL Acquired: 9/30/2025 14:46:36 Type: Unk
Method: 6010-200.7 NEW(v228) 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	-.000251	-.000097	-.000311
Stddev	.002395	.001097	.000341
%RSD	953.9211	1134.135	109.7233
#1	-.001023	-.000634	-.000570
#2	.002435	-.000821	-.000439
#3	-.002165	.001165	.000076

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7093.159	88651.95	4820.204	5677.201	8303.338
Stddev	10.154	336.06	19.958	30.012	19.649
%RSD	.1431577	.3790775	.4140567	.5286451	.2366446
#1	7083.114	88410.47	4803.133	5676.142	8284.583
#2	7092.945	89035.76	4842.148	5707.729	8301.658
#3	7103.419	88509.64	4815.332	5647.733	8323.774

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: PB169831BS Acquired: 9/30/2025 14:50:48 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.7879239**	**1.895126**	**.9420796**	**2.029405**	**.8108581**	**1.952104**
Stddev	.0022892	.021195	.0017518	.003592	.0014521	.018106
%RSD	.2905350	1.118379	.1859552	.1770165	.1790870	.9275064
#1	.7854642	1.917851	.9404297	2.033525	.8108415	1.969180
#2	.7883153	1.891631	.9418909	2.026927	.8094144	1.954013
#3	.7899922	1.875896	.9439181	2.027764	.8123185	1.933119

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1978500**	**.2030604**	**.1899466**	**.9833479**	**.3918763**	**.1924086**
Stddev	.0009702	.0005948	.0001482	.0162960	.0003652	.0001800
%RSD	.4903846	.2929295	.0780437	1.657193	.0931866	.0935247
#1	.1988254	.2032491	.1897863	.9995984	.3921609	.1925217
#2	.1978397	.2035380	.1899745	.9834386	.3914645	.1925031
#3	.1968850	.2023941	.1900788	.9670068	.3920034	.1922011

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3050289**	**2.880896**	**.1981351**	**1.952723**	**.4797787**	**.0736367**
Stddev	.0002526	.017424	.0014008	.080499	.0001590	.0013403
%RSD	.0828292	.6048194	.7070051	4.122399	.0331374	1.820091
#1	.3047963	2.900821	.1976403	2.034193	.4796678	.0721089
#2	.3049927	2.873358	.1997162	1.873231	.4799608	.0746141
#3	.3052977	2.868511	.1970488	1.950745	.4797074	.0741871

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.943891**	**.2955430**	**.1852485**	**9.785674**	**.2929421**	**.3978661**
Stddev	.016730	.0083064	.0007326	.069592	.0029884	.0005747
%RSD	.5683061	2.810563	.3954867	.7111644	1.020123	.1444363
#1	2.944186	.2965023	.1855137	9.766876	.2952334	.3984908
#2	2.960471	.2867987	.1844202	9.727412	.2895620	.3977474
#3	2.927014	.3033282	.1858117	9.862734	.2940308	.3973600

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: PB169831BS Acquired: 9/30/2025 14:50:48 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.6897636	.1956777	.8313317	5.709411	F 4.255863	.1974800
Stddev	.0012263	.0035507	.0183454	.015414	.009091	.0034555
%RSD	.1777825	1.814563	2.206755	.2699802	.2136176	1.749797
#1	.6884322	.1947157	.8454172	5.711290	4.258086	.1936429
#2	.6908467	.1996103	.8379913	5.693144	4.245867	.2003462
#3	.6900119	.1927072	.8105866	5.723800	4.263637	.1984508

Elem	Sr4077
Units	ppm
Avg	.1900135
Stddev	.0009238
%RSD	.4861855
#1	.1910095
#2	.1898465
#3	.1891846

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7112.454	86084.55	4816.113	5550.515	8179.704
Stddev	8.620	279.13	7.418	12.930	9.218
%RSD	.1211899	.3242526	.1540144	.2329555	.1126899
#1	7112.916	86223.40	4819.082	5548.190	8186.284
#2	7103.613	86267.02	4821.586	5564.450	8169.169
#3	7120.833	85763.22	4807.671	5538.905	8183.660

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3177-01DLX25 Acquired: 9/30/2025 14:54:47 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.000963**	**.0007091**	**-.000561**	**.0067148**	**.0012787**	**.2033432**	**.0150555**
Stddev	.000696	.0014247	.002555	.0058818	.0010067	.0133688	.0018450
%RSD	72.35234	200.9091	455.7075	87.59403	78.72604	6.574522	12.25447
#1	-.000259	-.000055	.002044	.0081109	.0005192	.2080782	.0163765
#2	-.001651	.002353	-.000663	.0117729	.0024206	.1882513	.0129475
#3	-.000977	-.000170	-.003064	.0002606	.0008963	.2137001	.0158424

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000130**	**.0023087**	**8.656832**	**-.000259**	**.0000154**	**-.000133**	**.0128237**
Stddev	.000014	.0000859	.036976	.000186	.0002245	.000305	.0054910
%RSD	10.57978	3.721178	.4271254	71.84725	1455.625	229.8474	42.81914
#1	-.000118	.0022664	8.694167	-.000097	.0002459	-.000341	.0130382
#2	-.000128	.0024075	8.656102	-.000462	-.000203	-.000274	.0182043
#3	-.000145	.0022521	8.620226	-.000217	.000003	.000217	.0072286

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9085369**	**1.023289**	**.0003009**	**-.000406**	**.5025169**	**-.001849**	**.0045209**
Stddev	.0027532	.020614	.0003785	.000929	.0518836	.006793	.0002345
%RSD	.3030329	2.014443	125.7810	228.8474	10.32474	367.4287	5.186273
#1	.9074664	1.032083	.0002181	.000280	.4512275	-.004834	.0042725
#2	.9064797	1.038047	-.000029	-.000035	.5549749	.005926	.0045518
#3	.9116645	.999737	.000714	-.001464	.5013484	-.006639	.0047384

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8932166**	**-.000062**	**-.000095**	**.0093610**	**-.001272**	**.1872733**	**.0016881**
Stddev	.0787804	.002143	.000386	.0008387	.004372	.0277880	.0008133
%RSD	8.819857	3431.573	407.8095	8.959058	343.6700	14.83820	48.17631
#1	.8153561	-.000434	-.000122	.0103238	.002939	.2095256	.0014512
#2	.9728858	.002242	.000304	.0089698	-.000967	.1961672	.0025935
#3	.8914078	-.001996	-.000467	.0087894	-.005789	.1561272	.0010196

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3177-01DLX25 Acquired: 9/30/2025 14:54:47 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**5.981019**	**-.013389**	**.0183137**
Stddev	.005429	.001162	.0002865
%RSD	.0907712	8.675658	1.564406
#1	5.977240	-.013812	.0185234
#2	5.987240	-.014280	.0184305
#3	5.978576	-.012075	.0179873

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7150.697**	**87418.91**	**4910.274**	**5621.753**	**8297.321**
Stddev	8.307	371.67	53.633	17.495	7.225
%RSD	.1161765	.4251643	1.092260	.3111961	.0870796
#1	7159.376	87237.68	4848.367	5616.644	8305.322
#2	7149.894	87172.62	4939.774	5607.382	8291.273
#3	7142.820	87846.44	4942.681	5641.233	8295.369

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3177-02DLX40 Acquired: 9/30/2025 14:58:56 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.002355**	**.0014707**	**-.000204**	**.0033965**	**.0027046**	**.1452436**	**.0104623**
Stddev	.001767	.0010008	.000443	.0014821	.0014482	.0185739	.0049396
%RSD	75.02309	68.04817	217.1936	43.63486	53.54573	12.78811	47.21313
#1	-.000768	.0021605	-.000224	.0050295	.0035463	.1396595	.0155201
#2	-.002038	.0019288	.000249	.0021366	.0035352	.1301024	.0056501
#3	-.004259	.0003229	-.000636	.0030236	.0010324	.1659690	.0102168

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000060**	**.0000276**	**9.146765**	**-.000250**	**-.000375**	**-.000208**	**-.010630**
Stddev	.000054	.0000958	.133855	.000441	.000141	.000382	.006532
%RSD	89.43094	347.6708	1.463413	176.5153	37.61273	183.7363	61.44877
#1	-.000114	.0001118	9.289325	.000069	-.000450	.000168	-.005130
#2	-.000007	-.000077	9.127200	-.000065	-.000212	-.000596	-.017850
#3	-.000059	.000048	9.023769	-.000753	-.000463	-.000196	-.008910

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3465305**	**1.220446**	**.0000606**	**-.000167**	**.5273616**	**-.003480**	**.0029422**
Stddev	.0034044	.009827	.0002538	.000576	.0296192	.002408	.0001602
%RSD	.9824275	.8052015	418.9544	344.5024	5.616482	69.20125	5.444699
#1	.3490132	1.210514	.0001978	-.000693	.5145577	-.001587	.0031218
#2	.3479287	1.220658	.0002162	.000448	.5612289	-.006190	.0028141
#3	.3426496	1.230165	-.000232	-.000257	.5062983	-.002662	.0028906

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7477571**	**.0001976**	**-.000373**	**.0146680**	**.0004985**	**.1956359**	**.0027910**
Stddev	.0838914	.0013764	.000330	.0016567	.0017170	.0318990	.0006523
%RSD	11.21907	696.6128	88.41640	11.29483	344.4412	16.30532	23.37215
#1	.8062822	.0010632	-.000739	.0131989	-.001397	.1944290	.0020596
#2	.7853443	.0009190	-.000101	.0143413	.001950	.1643574	.0030010
#3	.6516449	-.001390	-.000278	.0164637	.000943	.2281212	.0033125

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3177-02DLX40 Acquired: 9/30/2025 14:58:56 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**5.235633**	**-.011810**	**.0196563**
Stddev	.107455	.002693	.0000747
%RSD	2.052376	22.80555	.3801181
#1	5.332542	-.009630	.0197417
#2	5.254284	-.014821	.0196030
#3	5.120074	-.010980	.0196242

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7256.168**	**86675.30**	**4896.398**	**5565.249**	**8507.246**
Stddev	11.381	65.01	27.691	6.672	18.611
%RSD	.1568454	.0749995	.5655282	.1198912	.2187641
#1	7268.279	86602.31	4869.477	5572.954	8525.611
#2	7245.695	86726.94	4924.799	5561.437	8488.399
#3	7254.528	86696.66	4894.918	5561.357	8507.727

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3177-03DLX40 Acquired: 9/30/2025 15:03:06 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.000133**	**.0006124**	**-.000153**	**.0052090**	**.0008500**	**.1749336**	**.0129163**
Stddev	.002768	.0019533	.000757	.0010660	.0002994	.0206977	.0016475
%RSD	2073.763	318.9707	494.0817	20.46475	35.21778	11.83172	12.75550
#1	-.001808	-.000489	-.000662	.0040286	.0011681	.1984753	.0147953
#2	-.001653	.002868	.000716	.0061014	.0005738	.1667310	.0122350
#3	.003061	-.000541	-.000514	.0054971	.0008082	.1595944	.0117187

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000157**	**-.000011**	**9.750228**	**-.000475**	**-.000146**	**.0002258**	**.0030026**
Stddev	.000092	.000063	.139909	.000308	.000159	.0005281	.0039174
%RSD	58.82245	559.5809	1.434935	64.89949	108.7505	233.9391	130.4698
#1	-.000214	.000044	9.896025	-.000435	.000013	.0007836	.0075249
#2	-.000050	.000002	9.737597	-.000188	-.000305	.0001601	.0008278
#3	-.000206	-.000080	9.617063	-.000801	-.000147	-.000266	.0006550

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4194664**	**1.064464**	**.0003294**	**-.000973**	**.4766913**	**-.000655**	**.0116956**
Stddev	.0047961	.025559	.0003278	.000561	.0309567	.003803	.0004834
%RSD	1.143392	2.401156	99.54024	57.60533	6.494084	580.6379	4.133084
#1	.4210492	1.077156	.0004342	-.000414	.4964956	-.002961	.0121261
#2	.4232711	1.035043	-.000038	-.001535	.4925605	.003735	.0111727
#3	.4140789	1.081194	.000592	-.000971	.4410178	-.002739	.0117880

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5241733**	**.0021811**	**-.000056**	**.0151838**	**.0007152**	**.2030501**	**.0050313**
Stddev	.0705348	.0009803	.000312	.0002793	.0019312	.0149891	.0008229
%RSD	13.45638	44.94314	561.5134	1.839822	270.0229	7.381945	16.35534
#1	.4716032	.0022909	-.000406	.0153878	.0026893	.2203348	.0059519
#2	.4965839	.0011506	.000194	.0152982	-.001170	.1936318	.0047750
#3	.6043327	.0031019	.000045	.0148654	.000626	.1951837	.0043672

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3177-03DLX40 Acquired: 9/30/2025 15:03:06 Type: Unk
Method: 6010-200.7 NEW(v228) 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	5.706022	-.011684	.0213794
Stddev	.181565	.001986	.0006048
%RSD	3.181987	16.99848	2.829116
#1	5.897681	-.012147	.0218443
#2	5.683784	-.009508	.0215982
#3	5.536600	-.013398	.0206956

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7247.087	87560.67	4832.580	5607.696	8489.255
Stddev	6.233	242.51	41.657	37.238	3.852
%RSD	.0860036	.2769649	.8619980	.6640577	.0453732
#1	7253.402	87830.74	4869.556	5650.524	8488.041
#2	7246.918	87361.53	4787.449	5582.966	8493.568
#3	7240.940	87489.74	4840.734	5589.598	8486.157

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3179-01DLX40 Acquired: 9/30/2025 15:07:14 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.000588**	**.0000418**	**-.000162**	**.0042670**	**-.001775**	**.0477534**	**.0142886**
Stddev	.000584	.0024951	.001894	.0013957	.002381	.0242238	.0020865
%RSD	99.33651	5971.351	1166.233	32.71032	134.1641	50.72690	14.60286
#1	-.000671	-.002683	.000042	.0046571	.000389	.0366427	.0118899
#2	-.001126	.002215	-.002151	.0054261	-.001387	.0755396	.0152923
#3	.000033	.000594	.001621	.0027177	-.004326	.0310780	.0156836

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000130**	**.0000538**	**12.02423**	**.0000814**	**-.000089**	**-.000257**	**-.004781**
Stddev	.000048	.0001464	.17541	.0001359	.000230	.000149	.005670
%RSD	36.89027	271.9565	1.458803	166.8489	258.4417	58.06944	118.5995
#1	-.000078	.0002199	12.17971	.0001492	.000127	-.000220	-.009552
#2	-.000172	-.000002	12.05891	-.000075	-.000062	-.000129	-.006276
#3	-.000141	-.000056	11.83407	.000170	-.000331	-.000420	.001487

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3142840**	**1.460098**	**-.000045**	**-.000660**	**.4252078**	**-.002438**	**.0034383**
Stddev	.0029480	.053622	.000284	.000366	.0213871	.006122	.0004136
%RSD	.9380161	3.672474	625.3768	55.47053	5.029803	251.0511	12.02796
#1	.3173385	1.519848	.000165	-.000264	.4009889	-.009142	.0033241
#2	.3140579	1.416161	-.000369	-.000731	.4331344	.002856	.0038970
#3	.3114555	1.444284	.000067	-.000986	.4414999	-.001030	.0030939

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7837404**	**.0010318**	**-.000122**	**.0142454**	**.0007599**	**.2244734**	**.0036938**
Stddev	.0608345	.0000674	.000543	.0011828	.0030543	.0139970	.0007583
%RSD	7.762078	6.531118	444.3774	8.302913	401.9568	6.235480	20.52887
#1	.8324917	.0010830	-.000718	.0128996	-.002640	.2405765	.0045329
#2	.7155660	.0010569	.000345	.0151198	.001649	.2176193	.0034909
#3	.8031635	.0009554	.000006	.0147168	.003271	.2152245	.0030576

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3179-01DLX40 Acquired: 9/30/2025 15:07:14 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**6.711086**	**-.012840**	**.0244737**
Stddev	.227727	.005650	.0004083
%RSD	3.393289	44.00652	1.668438
#1	6.937428	-.018767	.0249452
#2	6.713830	-.012237	.0242356
#3	6.482000	-.007515	.0242404

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7210.956**	**87065.53**	**4871.126**	**5560.603**	**8403.771**
Stddev	7.154	164.13	12.062	36.886	8.593
%RSD	.0992164	.1885088	.2476244	.6633524	.1022552
#1	7219.180	87251.22	4871.404	5569.700	8405.869
#2	7206.164	87005.51	4858.927	5592.090	8394.323
#3	7207.524	86939.86	4883.046	5520.020	8411.121

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3179-01DUPDLX40 Acquired: 9/30/2025 15:11:24 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.0002933**	**.0007295**	**-.000802**	**.0014901**	**.0002754**	**.0430536**	**.0124540**
Stddev	.0010441	.0007208	.000755	.0023467	.0024632	.0041755	.0021908
%RSD	355.9987	98.81132	94.15502	157.4857	894.5069	9.698458	17.59137
#1	.0011991	.0000227	-.000878	.0014548	-.002420	.0388234	.0099726
#2	-.000849	.0007023	-.000012	-.000839	.002409	.0471722	.0141209
#3	.000529	.0014636	-.001516	.003854	.000837	.0431653	.0132684

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000055**	**.0001503**	**13.13562**	**-.000429**	**-.000218**	**.0003485**	**-.002740**
Stddev	.000077	.0001113	.26799	.000613	.000361	.0004186	.002750
%RSD	141.1024	74.05748	2.040145	143.0326	165.9340	120.1112	100.3321
#1	.000030	.0002777	13.42266	.000203	.000018	-.000102	.000301
#2	-.000073	.0001008	13.09220	-.000468	-.000634	.000725	-.003474
#3	-.000121	.0000723	12.89199	-.001021	-.000037	.000422	-.005049

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3414452**	**1.582954**	**.0001701**	**-.001115**	**.4117055**	**.0080344**	**.0040638**
Stddev	.0082365	.040085	.0003737	.000411	.0379534	.0041643	.0008715
%RSD	2.412247	2.532313	219.6677	36.85399	9.218590	51.83103	21.44427
#1	.3505026	1.574912	.0004825	-.000810	.4287135	.0118509	.0050402
#2	.3394292	1.626450	.0002718	-.001582	.4381802	.0035929	.0033647
#3	.3344039	1.547499	-.000244	-.000953	.3682228	.0086593	.0037867

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7872115**	**.0017947**	**-.000216**	**.0147137**	**-.001127**	**.2243882**	**.0032081**
Stddev	.0896801	.0010805	.000135	.0009426	.002911	.0240966	.0008015
%RSD	11.39212	60.20517	62.41159	6.406493	258.1644	10.73881	24.98228
#1	.8902684	.0029354	-.000077	.0142631	-.000800	.2027126	.0035522
#2	.7269091	.0016618	-.000346	.0157971	.001606	.2503347	.0037801
#3	.7444571	.0007868	-.000223	.0140809	-.004188	.2201174	.0022921

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3179-01DUPDLX40 Acquired: 9/30/2025 15:11:24 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**7.148042**	**-.014119**	**.0269743**
Stddev	.277958	.001379	.0005518
%RSD	3.888587	9.765246	2.045789
#1	7.413065	-.012547	.0275589
#2	7.172320	-.015124	.0264624
#3	6.858742	-.014685	.0269017

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7220.503**	**88140.26**	**4907.164**	**5649.300**	**8380.704**
Stddev	22.515	79.63	47.419	6.340	22.552
%RSD	.3118150	.0903410	.9663202	.1122253	.2690926
#1	7195.880	88155.56	4925.509	5641.979	8354.732
#2	7240.038	88054.09	4942.669	5652.981	8392.045
#3	7225.592	88211.13	4853.313	5652.939	8395.334

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: LR-3 Acquired: 9/30/2025 15:31:53 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.1223392**	**.0490558**	**207.7847**	**.0240869**	**.3105019**	**.0564651**	**.0032096**
Stddev	.0004773	.0010698	.8606	.0004291	.0035094	.0253522	.0003321
%RSD	.3901416	2.180781	.4141956	1.781283	1.130246	44.89890	10.34829
#1	.1227589	.0482153	207.8497	.0237771	.3123024	.0276041	.0033443
#2	.1218200	.0502601	208.6110	.0245766	.3064576	.0751402	.0028313
#3	.1224386	.0486922	206.8934	.0239069	.3127456	.0666508	.0034532

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.007862**	**-.003592**	**.2203753**	**24.01821**	**.0120248**	**48.04118**	**.0620960**
Stddev	.000132	.000132	.0154136	.25284	.0003240	.33169	.0104633
%RSD	1.682177	3.683600	6.994226	1.052684	2.694581	.6904335	16.85022
#1	-.008001	-.003739	.2352930	23.77876	.0122618	47.98293	.0508424
#2	-.007738	-.003554	.2213232	24.28259	.0116555	48.39814	.0639152
#3	-.007847	-.003482	.2045097	23.99330	.0121569	47.74248	.0715304

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**54.04798**	**-.267154**	**23.37935**	**.0035503**	**-.089688**	**-.047863**	**32.49050**
Stddev	.19453	.042164	.08092	.0003497	.022923	.003414	.50989
%RSD	.3599245	15.78270	.3461174	9.848992	25.55860	7.133847	1.569342
#1	53.96371	-.299977	23.28635	.0038432	-.082074	-.051600	32.07866
#2	53.90979	-.219601	23.41804	.0031632	-.071541	-.047085	33.06081
#3	54.27043	-.281885	23.43367	.0036446	-.115449	-.044905	32.33205

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.017337**	**.0027912**	**-.027451**	**-.009034**	**-.045194**	**-.099402**	**.2341510**
Stddev	.026338	.0006810	.000681	.000940	.001720	.011488	.0012305
%RSD	151.9200	24.39931	2.479625	10.40454	3.806564	11.55758	.5255187
#1	-.045217	.0033508	-.027713	-.009510	-.043333	-.088479	.2327309
#2	-.013918	.0029899	-.027961	-.009641	-.045522	-.111382	.2349007
#3	.007125	.0020329	-.026678	-.007952	-.046726	-.098345	.2348214

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: LR-3 Acquired: 9/30/2025 15:31:53 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.1512321	-.013323	.0002467
Stddev	.0027735	.003644	.0001921
%RSD	1.833961	27.34878	77.86057
#1	.1484047	-.009768	.0002422
#2	.1539484	-.013152	.0004411
#3	.1513431	-.017050	.0000570

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6748.606	88075.31	4900.335	5407.908	8464.051
Stddev	43.902	413.05	35.329	40.630	40.864
%RSD	.6505298	.4689684	.7209508	.7513065	.4827965
#1	6768.645	88383.22	4940.145	5422.460	8481.518
#2	6698.260	87605.92	4872.715	5362.006	8417.356
#3	6778.912	88236.79	4888.145	5439.258	8493.279

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCV02 Acquired: 9/30/2025 15:41:05 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**4.984203**	**4.674155**	**4.894823**	**5.036349**	**4.941945**	**9.677836**	**9.887643**
Stddev	.012291	.016434	.001228	.002839	.009706	.040429	.013507
%RSD	.2466071	.3515923	.0250938	.0563759	.1963982	.4177466	.1366056
#1	4.972865	4.655265	4.895618	5.033099	4.930900	9.636208	9.898917
#2	4.997266	4.685166	4.893408	5.038349	4.949114	9.680351	9.872672
#3	4.982478	4.682035	4.895442	5.037598	4.945821	9.716949	9.891338

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2463997**	**2.458668**	**24.57133**	**.9930166**	**2.451284**	**1.232074**	**4.946563**
Stddev	.0005015	.000636	.00959	.0025943	.002715	.001662	.014466
%RSD	.2035358	.0258810	.0390298	.2612513	.1107701	.1348916	.2924446
#1	.2465770	2.457934	24.57209	.9952501	2.448186	1.231260	4.931289
#2	.2467884	2.459009	24.56138	.9936286	2.452416	1.230976	4.960057
#3	.2458336	2.459061	24.58052	.9901710	2.453250	1.233986	4.948343

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.454596**	**24.27611**	**2.448849**	**1.235310**	**23.75781**	**2.454556**	**2.310895**
Stddev	.002809	.10274	.001897	.003308	.12967	.011880	.004594
%RSD	.1144343	.4232002	.0774497	.2677901	.5458046	.4839823	.1987781
#1	2.456859	24.21605	2.446674	1.239024	23.71182	2.466324	2.315815
#2	2.455476	24.39474	2.450158	1.234222	23.65739	2.454778	2.310152
#3	2.451453	24.21754	2.449715	1.232682	23.90420	2.442568	2.306718

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.99652**	**4.932262**	**4.955857**	**4.928302**	**4.879547**	**4.817558**	**4.901514**
Stddev	.11977	.008885	.005759	.005764	.009538	.016638	.007953
%RSD	.4791464	.1801441	.1162054	.1169593	.1954632	.3453569	.1622554
#1	25.02328	4.935028	4.957069	4.921649	4.889713	4.831262	4.906506
#2	24.86564	4.939435	4.949588	4.931790	4.870795	4.799045	4.905694
#3	25.10066	4.922322	4.960913	4.931468	4.878132	4.822366	4.892343

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCV02 Acquired: 9/30/2025 15:41:05 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**5.054031**	**4.715384**	**4.870475**
Stddev	.015425	.005939	.076841
%RSD	.3052043	.1259424	1.577684
#1	5.042595	4.710467	4.800380
#2	5.071574	4.713702	4.858412
#3	5.047922	4.721982	4.952634

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7199.103**	**85194.28**	**4915.811**	**5522.930**	**7918.654**
Stddev	26.488	260.56	19.246	33.553	22.697
%RSD	.3679318	.3058416	.3915159	.6075286	.2866231
#1	7190.787	85433.16	4937.056	5545.458	7911.010
#2	7228.751	85233.24	4910.835	5538.965	7944.186
#3	7177.771	84916.43	4899.541	5484.368	7900.766

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCB02 Acquired: 9/30/2025 15:50:15 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.000362**	**.0005746**	**-.000152**	**.0043893**	**.0022325**	**.0132011**	**.0015688**
Stddev	.002409	.0021034	.001022	.0031269	.0008857	.0339447	.0017502
%RSD	665.1490	366.0891	670.5560	71.23875	39.67301	257.1347	111.5619
#1	-.003039	-.001589	.000185	.0063899	.0015772	-.025441	.0035286
#2	.000323	.002612	-.001301	.0007860	.0018802	.026838	.0001619
#3	.001630	.000701	.000658	.0059920	.0032402	.038207	.0010158

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000359**	**.0000212**	**.0211063**	**.0001205**	**-.000415**	**-.000501**	**-.011624**
Stddev	.0000467	.0000435	.0110347	.0005228	.000094	.000335	.003733
%RSD	129.8537	204.9773	52.28146	433.8519	22.65415	66.94875	32.11800
#1	.0000557	-.000026	.0083653	.0006107	-.000394	-.000822	-.008047
#2	.0000695	.000031	.0275954	-.000430	-.000332	-.000527	-.011330
#3	-.000017	.000059	.0273582	.000180	-.000517	-.000153	-.015496

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000776**	**-.072428**	**.0002305**	**-.000626**	**-.134637**	**.0003429**	**-.000502**
Stddev	.001849	.046362	.0005765	.000914	.054560	.0081667	.000312
%RSD	238.2354	64.01142	250.1364	146.1585	40.52360	2381.427	62.10402
#1	.001358	-.018898	.0008136	-.000414	-.077047	.0089085	-.000402
#2	-.001884	-.099786	.0002169	-.001627	-.185553	-.007356	-.000253
#3	-.001802	-.098600	-.000339	.000164	-.141310	-.000524	-.000852

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.091262**	**-.001819**	**.0001727**	**.0155367**	**-.000708**	**.0207967**	**.0011657**
Stddev	.091299	.000458	.0003827	.0007745	.001252	.0134142	.0013105
%RSD	100.0408	25.17009	221.6291	4.985155	176.7391	64.50144	112.4220
#1	-.159341	-.001599	.0003350	.0146829	-.002130	.0355466	-.000183
#2	-.126934	-.002345	.0004474	.0161942	-.000223	.0093264	.002434
#3	.012488	-.001512	-.000264	.0157331	.000228	.0175171	.001246

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCB02 Acquired: 9/30/2025 15:50:15 Type: Unk
Method: 6010-200.7 NEW(v228) 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	-.001334	-.009822	.0000072
Stddev	.003152	.007177	.0001220
%RSD	236.2222	73.07252	1686.525
#1	-.001176	-.002654	.0000537
#2	-.004562	-.017009	-.000131
#3	.001736	-.009803	.000099

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7306.928	88499.16	4964.799	5724.601	8588.820
Stddev	7.173	321.33	59.608	10.315	6.608
%RSD	.0981606	.3630935	1.200614	.1801792	.0769427
#1	7306.445	88847.56	4900.173	5724.605	8583.117
#2	7300.009	88214.42	5017.623	5734.913	8587.281
#3	7314.330	88435.49	4976.601	5714.284	8596.062

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3179-01LDLX200 Acquired: 9/30/2025 16:02:24 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.000940**	**-.001785**	**-.001726**	**.0033070**	**-.000764**	**.0151218**	**.0033496**
Stddev	.001082	.001564	.000862	.0021967	.002476	.0109677	.0023368
%RSD	115.0754	87.62921	49.95269	66.42456	324.2289	72.52884	69.76211
#1	-.001382	-.000322	-.002577	.0036202	-.002592	.0277819	.0055397
#2	.000293	-.003433	-.001748	.0009706	.002054	.0085081	.0036196
#3	-.001732	-.001599	-.000853	.0053303	-.001752	.0090754	.0008896

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000091**	**-.000046**	**2.352449**	**-.000019**	**-.000313**	**-.000230**	**-.015154**
Stddev	.000037	.000084	.031091	.000565	.000288	.000284	.009640
%RSD	40.48237	180.5118	1.321641	2914.427	92.23255	123.1114	63.61177
#1	-.000095	.000001	2.316672	.000428	-.000593	-.000284	-.026126
#2	-.000125	-.000143	2.372915	.000169	-.000017	.000076	-.008042
#3	-.000052	.000003	2.367761	-.000655	-.000328	-.000483	-.011295

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0623604**	**.2481860**	**-.000239**	**-.001103**	**-.074335**	**-.002829**	**.0006776**
Stddev	.0022070	.0431332	.000180	.000571	.012888	.000414	.0003413
%RSD	3.539131	17.37939	75.25442	51.75719	17.33820	14.62837	50.37279
#1	.0599817	.2677548	-.000034	-.000660	-.059474	-.003115	.0003227
#2	.0643418	.2780661	-.000313	-.000902	-.081076	-.002354	.0010035
#3	.0627579	.1987372	-.000371	-.001748	-.082455	-.003018	.0007066

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0832694**	**-.000799**	**-.000180**	**.0222274**	**-.002452**	**.0450557**	**.0008961**
Stddev	.0296691	.000998	.000131	.0008169	.005914	.0066773	.0005982
%RSD	35.63019	125.0289	72.33163	3.675147	241.1621	14.82012	66.75905
#1	.1164509	-.001908	-.000274	.0214411	.001543	.0407198	.0015857
#2	.0740608	.000027	-.000031	.0230718	.000347	.0527451	.0005863
#3	.0592966	-.000514	-.000237	.0221694	-.009247	.0417022	.0005163

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3179-01LDLX200 Acquired: 9/30/2025 16:02:24 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**1.317489**	**-.014214**	**.0046953**
Stddev	.059215	.005455	.0002492
%RSD	4.494513	38.37662	5.307645
#1	1.380969	-.020510	.0046117
#2	1.307750	-.010888	.0044986
#3	1.263747	-.011245	.0049755

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7257.481**	**88712.58**	**4937.773**	**5692.538**	**8485.899**
Stddev	4.240	272.84	6.274	49.444	14.646
%RSD	.0584182	.3075565	.1270684	.8685687	.1725870
#1	7255.088	88406.64	4943.965	5656.598	8470.012
#2	7262.376	88930.69	4937.936	5672.091	8488.825
#3	7254.979	88800.41	4931.419	5748.925	8498.862

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3179-02DLX40 Acquired: 9/30/2025 16:06:35 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.0266843**	**.0636084**	**.0319425**	**.0733192**	**.0263456**	**.1268320**	**.0211485**
Stddev	.0016435	.0017074	.0024133	.0082363	.0039318	.0235142	.0046616
%RSD	6.159090	2.684282	7.555210	11.23344	14.92379	18.53961	22.04205
#1	.0270476	.0655794	.0337198	.0823460	.0301424	.1109738	.0234401
#2	.0281158	.0625827	.0329126	.0713990	.0266029	.1156744	.0242207
#3	.0248896	.0626631	.0291951	.0662127	.0222915	.1538479	.0157847

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0079732**	**.0064098**	**13.41788**	**.0158208**	**.0061694**	**.0101453**	**.1177634**
Stddev	.0001160	.0005144	.25538	.0006542	.0003477	.0009390	.0082599
%RSD	1.454422	8.024332	1.903287	4.135289	5.635093	9.255572	7.013985
#1	.0081070	.0068886	13.67098	.0163327	.0065691	.0111706	.1255176
#2	.0079097	.0064748	13.42239	.0160460	.0060023	.0093271	.1186958
#3	.0079028	.0058661	13.16028	.0150837	.0059369	.0099384	.1090769

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3578831**	**1.653768**	**.0163960**	**.0018935**	**.4456355**	**.0143202**	**.0128546**
Stddev	.0038244	.033764	.0013055	.0004936	.0504813	.0045159	.0003484
%RSD	1.068620	2.041639	7.962351	26.06634	11.32794	31.53519	2.710082
#1	.3614126	1.682698	.0177203	.0024166	.4850211	.0125483	.0132491
#2	.3584170	1.661938	.0163575	.0014360	.4631575	.0194534	.0127253
#3	.3538199	1.616669	.0151102	.0018278	.3887278	.0109590	.0125894

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.257519**	**.0161678**	**.0137358**	**.0430955**	**.0084926**	**.2584180**	**.1953821**
Stddev	.099898	.0017863	.0011821	.0011455	.0054340	.0107046	.0122270
%RSD	7.944065	11.04881	8.605677	2.658026	63.98558	4.142365	6.258013
#1	1.370204	.0178558	.0150156	.0443718	.0142563	.2662329	.2079204
#2	1.222534	.0163504	.0135067	.0427583	.0077585	.2628042	.1947336
#3	1.179819	.0142971	.0126851	.0421565	.0034629	.2462169	.1834922

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3179-02DLX40 Acquired: 9/30/2025 16:06:35 Type: Unk
Method: 6010-200.7 NEW(v228) 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	7.011956	-.004343	.0357089
Stddev	.409297	.004675	.0008796
%RSD	5.837135	107.6441	2.463224
#1	7.437559	-.000945	.0365053
#2	6.977116	-.002410	.0358566
#3	6.621192	-.009675	.0347649

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7390.508	86042.63	4942.159	5629.642	8679.063
Stddev	14.312	62.50	21.197	10.288	25.721
%RSD	.1936582	.0726441	.4288984	.1827447	.2963574
#1	7386.517	86067.57	4917.968	5624.195	8652.846
#2	7406.393	85971.51	4957.478	5641.508	8704.257
#3	7378.615	86088.82	4951.033	5623.223	8680.086

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3179-03DLX40 Acquired: 9/30/2025 16:10:43 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.0238683**	**.0578388**	**.0303133**	**.0659619**	**.0259368**	**.1203935**	**.0194869**
Stddev	.0020991	.0012812	.0012430	.0012069	.0042132	.0202870	.0024692
%RSD	8.794638	2.215096	4.100444	1.829629	16.24404	16.85054	12.67101
#1	.0259924	.0591780	.0308171	.0672290	.0281749	.1338967	.0222972
#2	.0238173	.0566248	.0312253	.0648260	.0285586	.1302192	.0184982
#3	.0217951	.0577137	.0288975	.0658308	.0210769	.0970645	.0176652

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0069572**	**.0060569**	**11.76563**	**.0136482**	**.0056552**	**.0093871**	**.1062441**
Stddev	.0001946	.0002882	.31081	.0004612	.0002922	.0010398	.0104981
%RSD	2.797040	4.757789	2.641668	3.378931	5.167699	11.07737	9.881078
#1	.0071813	.0063663	12.10001	.0141751	.0057777	.0105264	.1181186
#2	.0068309	.0060082	11.71134	.0134515	.0058663	.0091458	.1024177
#3	.0068593	.0057962	11.48554	.0133181	.0053216	.0084891	.0981959

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3125093**	**1.507534**	**.0152351**	**.0013604**	**.3658110**	**.0133251**	**.0113670**
Stddev	.0087212	.072530	.0006220	.0010693	.0064700	.0026786	.0002819
%RSD	2.790698	4.811200	4.082327	78.60407	1.768688	20.10201	2.480226
#1	.3221790	1.578205	.0158732	.0004606	.3592690	.0111182	.0112866
#2	.3101101	1.511121	.0152015	.0025426	.3659574	.0163053	.0116803
#3	.3052388	1.433277	.0146307	.0010781	.3722067	.0125518	.0111339

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9876156**	**.0136931**	**.0121509**	**.0425250**	**.0108933**	**.2138665**	**.1846064**
Stddev	.0883833	.0011165	.0006886	.0012042	.0022885	.0188129	.0068852
%RSD	8.949156	8.153552	5.667349	2.831724	21.00831	8.796559	3.729671
#1	1.089479	.0149435	.0129461	.0436110	.0135331	.2173763	.1918500
#2	.931255	.0133396	.0117594	.0427341	.0096760	.1935458	.1838227
#3	.942113	.0127962	.0117473	.0412300	.0094707	.2306773	.1781466

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3179-03DLX40 Acquired: 9/30/2025 16:10:43 Type: Unk
Method: 6010-200.7 NEW(v228) 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	6.651692	-.010139	.0314293
Stddev	.257223	.004142	.0008591
%RSD	3.867038	40.85431	2.733496
#1	6.925418	-.007242	.0324131
#2	6.614677	-.008292	.0310477
#3	6.414982	-.014884	.0308271

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7302.866	89659.57	4976.664	5705.228	8476.710
Stddev	6.345	195.44	50.151	18.076	7.962
%RSD	.0868831	.2179754	1.007732	.3168389	.0939224
#1	7308.714	89779.05	4936.987	5708.113	8476.325
#2	7303.762	89765.61	5033.033	5721.688	8484.856
#3	7296.120	89434.03	4959.972	5685.883	8468.947

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3179-01ADLX40 Acquired: 9/30/2025 16:14:50 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.0243073**	**.0599464**	**.0297578**	**.0710670**	**.0275468**	**.1176081**	**.0170373**
Stddev	.0003583	.0044451	.0018048	.0015652	.0008014	.0218303	.0026861
%RSD	1.474115	7.415076	6.064840	2.202480	2.909032	18.56188	15.76616
#1	.0245841	.0649769	.0285685	.0719740	.0281957	.1132057	.0181404
#2	.0239026	.0583136	.0318345	.0692596	.0277937	.0983145	.0189962
#3	.0244353	.0565486	.0288705	.0719674	.0266511	.1413041	.0139752

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0070895**	**.0062997**	**11.31675**	**.0141760**	**.0059077**	**.0098359**	**.0987665**
Stddev	.0000189	.0000408	.20383	.0004379	.0001002	.0006957	.0129098
%RSD	.2661369	.6472545	1.801099	3.088918	1.696028	7.072692	13.07102
#1	.0071108	.0063368	11.54275	.0144438	.0060201	.0106323	.0849851
#2	.0070749	.0063062	11.26065	.0144135	.0058278	.0095279	.1007359
#3	.0070828	.0062561	11.14685	.0136707	.0058752	.0093473	.1105784

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3014243**	**1.415617**	**.0155987**	**.0015945**	**.3502769**	**.0108359**	**.0116060**
Stddev	.0048478	.067288	.0005328	.0014581	.0159400	.0024274	.0001823
%RSD	1.608308	4.753267	3.415646	91.44701	4.550687	22.40102	1.570633
#1	.3068596	1.484268	.0161760	.0026093	.3631900	.0119256	.0117918
#2	.2998661	1.349781	.0154944	-.000076	.3551790	.0125275	.0114274
#3	.2975472	1.412803	.0151258	.002251	.3324615	.0080547	.0115989

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9600460**	**.0126018**	**.0130279**	**.0428034**	**.0044132**	**.2494714**	**.1900834**
Stddev	.0971621	.0006017	.0003850	.0010306	.0023099	.0103368	.0052756
%RSD	10.12057	4.774787	2.954901	2.407633	52.34106	4.143495	2.775429
#1	1.022158	.0128253	.0133983	.0430919	.0051192	.2609444	.1960993
#2	.848076	.0130597	.0130557	.0416593	.0062877	.2408840	.1879053
#3	1.009904	.0119203	.0126298	.0436589	.0018327	.2465857	.1862455

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3179-01ADLX40 Acquired: 9/30/2025 16:14:50 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**6.609234**	**-.004057**	**.0302151**
Stddev	.205187	.007298	.0007570
%RSD	3.104553	179.8716	2.505344
#1	6.828925	-.008050	.0310579
#2	6.576224	-.008488	.0299946
#3	6.422553	.004366	.0295928

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7385.295**	**88835.08**	**4997.947**	**5683.767**	**8597.012**
Stddev	7.856	468.79	11.921	30.386	7.142
%RSD	.1063785	.5277090	.2385247	.5346053	.0830739
#1	7386.320	88890.22	4986.612	5658.158	8595.362
#2	7376.976	89273.86	5010.379	5717.342	8590.839
#3	7392.588	88341.16	4996.849	5675.801	8604.834

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: PB169831TB Acquired: 9/30/2025 16:18:58 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.002146**	**.0002212**	**.0002160**	**.0020489**	**.0000659**	**.0111086**	**-.000520**
Stddev	.001926	.0015379	.0004232	.0008577	.0014988	.0131860	.000653
%RSD	89.75709	695.2787	195.9387	41.86339	2273.712	118.7009	125.6748
#1	-.001866	-.001513	.0002387	.0010585	-.001634	.0163332	.000233
#2	-.000375	.001418	-.000218	.0025329	.001199	.0208817	-.000936
#3	-.004197	.000758	.000627	.0025552	.000632	-.003889	-.000857

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000062**	**-.000132**	**.0037859**	**-.000032**	**-.000637**	**-.000344**	**-.006406**
Stddev	.000057	.000017	.0115972	.000645	.000069	.000335	.008375
%RSD	91.56413	12.55308	306.3298	2005.288	10.81544	97.38208	130.7233
#1	-.000047	-.000113	-.007409	.000704	-.000595	-.000682	-.005753
#2	-.000125	-.000145	.015748	-.000299	-.000716	-.000013	-.015089
#3	-.000014	-.000139	.003019	-.000501	-.000599	-.000336	.001622

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000608**	**-.035128**	**.0000368**	**-.001088**	**-.180566**	**.0000902**	**.0014467**
Stddev	.000957	.026986	.0001808	.000646	.048585	.0068767	.0001517
%RSD	157.3620	76.82150	491.3376	59.32879	26.90678	7620.217	10.48344
#1	-.001496	-.066211	-.000156	-.001723	-.124791	.0060352	.0016009
#2	-.000734	-.021500	.000203	-.000432	-.213682	.0016765	.0012977
#3	.000406	-.017674	.000063	-.001111	-.203225	-.007441	.0014415

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.183896**	**-.004714**	**-.000437**	**.0170865**	**-.002552**	**.0037864**	**.0017722**
Stddev	.093053	.000349	.000268	.0007698	.001975	.0146770	.0009198
%RSD	50.60123	7.403573	61.35256	4.505487	77.37012	387.6240	51.90196
#1	-.107807	-.005100	-.000128	.0177209	-.000273	-.007965	.0024334
#2	-.156237	-.004421	-.000610	.0173086	-.003632	.020238	.0021614
#3	-.287643	-.004620	-.000572	.0162300	-.003751	-.000913	.0007218

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: PB169831TB Acquired: 9/30/2025 16:18:58 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.0019980	-.013024	-.000260
Stddev	.0015656	.002626	.000193
%RSD	78.36012	20.16206	74.10323
#1	.0037838	-.014011	-.000455
#2	.0008614	-.010048	-.000257
#3	.0013487	-.015014	-.000069

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7431.411	89546.25	5018.759	5796.208	8726.928
Stddev	12.452	54.59	29.806	15.994	3.674
%RSD	.1675541	.0609593	.5938836	.2759346	.0421014
#1	7430.165	89609.22	5035.529	5806.492	8722.765
#2	7419.629	89512.24	5036.401	5804.351	8729.716
#3	7444.439	89517.31	4984.346	5777.782	8728.305

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3177-01 Acquired: 9/30/2025 16:23:09 Type: Unk
Method: 6010-200.7 NEW(v228) 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	-.003209	.0191517	-.000671	.0057901	.0057608	4.321120
Stddev	.000541	.0018057	.001264	.0012906	.0030981	.009066
%RSD	16.87208	9.428145	188.4487	22.29036	53.77896	.2097992
#1	-.003488	.0193382	-.000404	.0064024	.0043752	4.328088
#2	-.003554	.0172601	-.002047	.0043073	.0093099	4.324402
#3	-.002585	.0208569	.000438	.0066606	.0035974	4.310871

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3381770	-.002619	.0571774	202.6291	.0161916	.0061124
Stddev	.0032008	.000122	.0000840	.9390	.0003486	.0002414
%RSD	.9464706	4.665962	.1469391	.4634019	2.153040	3.949523
#1	.3416153	-.002532	.0572679	203.6690	.0164742	.0058346
#2	.3376320	-.002759	.0571018	202.3747	.0162986	.0062714
#3	.3352838	-.002567	.0571624	201.8435	.0158020	.0062312

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003533	.4166578	21.32428	24.18561	.0140683	-.000201
Stddev	.0000933	.0047503	.13851	.09729	.0005446	.000329
%RSD	26.41194	1.140084	.6495541	.4022812	3.871277	163.4845
#1	.0003917	.4135421	21.46218	24.29676	.0141616	.000062
#2	.0002469	.4221251	21.32549	24.11586	.0145602	-.000095
#3	.0004212	.4143060	21.18516	24.14422	.0134830	-.000570

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.18158	-.002156	.1199408	19.06169	.0972689	.0000552
Stddev	.11998	.009573	.0006342	.08371	.0019457	.0001283
%RSD	1.178432	443.9411	.5287382	.4391409	2.000307	232.3600
#1	10.30149	.005234	.1201745	19.13140	.0988925	.0001847
#2	10.18173	.001268	.1204250	19.08482	.0951123	.0000528
#3	10.06152	-.012971	.1192230	18.96885	.0978019	-.000072

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3177-01 Acquired: 9/30/2025 16:23:09 Type: Unk
Method: 6010-200.7 NEW(v228) 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	-.005998	-.004086	4.144783	.0432683	F 146.4924	-.055101
Stddev	.001305	.001553	.014930	.0021210	.0627	.004463
%RSD	21.76121	37.99803	.3602068	4.901938	.0428346	8.099057
#1	-.007471	-.005876	4.146504	.0454491	146.5295	-.056504
#2	-.005536	-.003092	4.129067	.0412127	146.5277	-.050106
#3	-.004986	-.003292	4.158778	.0431431	146.4199	-.058695

Elem	Sr4077
Units	ppm
Avg	.4386308
Stddev	.0035034
%RSD	.7987198
#1	.4420661
#2	.4387631
#3	.4350630

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7381.198	86440.11	4936.061	5605.503	8094.980
Stddev	30.433	202.95	22.585	6.408	34.989
%RSD	.4122977	.2347867	.4575461	.1143120	.4322361
#1	7348.077	86284.74	4910.102	5611.518	8056.711
#2	7387.593	86669.72	4946.882	5606.227	8102.893
#3	7407.926	86365.86	4951.200	5598.764	8125.334

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3177-02 Acquired: 9/30/2025 16:27:14 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.004114**	**.0102818**	**.0035461**	**.0062204**	**.0057460**	**3.428829**
Stddev	.001599	.0012100	.0008576	.0028979	.0031625	.018500
%RSD	38.87601	11.76850	24.18540	46.58711	55.03881	.5395530
#1	-.005302	.0089039	.0045323	.0076469	.0092301	3.440251
#2	-.002295	.0111710	.0031317	.0028858	.0049513	3.438751
#3	-.004744	.0107705	.0029744	.0081286	.0030566	3.407484

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2595992**	**-.001162**	**.0008406**	**263.0597**	**.0079497**	**.0008789**
Stddev	.0023272	.000083	.0000450	.5152	.0007396	.0002123
%RSD	.8964471	7.185243	5.352311	.1958490	9.303578	24.15300
#1	.2587995	-.001067	.0007994	263.4402	.0070957	.0007657
#2	.2622208	-.001224	.0008886	263.2655	.0083761	.0007472
#3	.2577773	-.001195	.0008339	262.4734	.0083773	.0011237

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0086186**	**.0830186**	**9.908923**	**35.27876**	**.0089669**	**-.000360**
Stddev	.0006714	.0161094	.042994	.03269	.0000657	.000240
%RSD	7.789472	19.40453	.4338948	.0926688	.7325390	66.74868
#1	.0093741	.0909203	9.945943	35.26714	.0088948	-.000412
#2	.0083915	.0936515	9.919061	35.31567	.0089825	-.000569
#3	.0080903	.0644841	9.861766	35.25345	.0090234	-.000098

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**15.81906**	**-.004188**	**.1179228**	**22.25477**	**.1204554**	**.0004058**
Stddev	.13583	.004274	.0007466	.23802	.0018179	.0001948
%RSD	.8586202	102.0399	.6331174	1.069543	1.509181	48.00528
#1	15.92715	-.005491	.1176862	22.46750	.1187442	.0004110
#2	15.86342	.000585	.1187591	22.29912	.1202582	.0005979
#3	15.66660	-.007659	.1173232	21.99769	.1223639	.0002084

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3177-02 Acquired: 9/30/2025 16:27:14 Type: Unk
Method: 6010-200.7 NEW(v228) 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	-.005019	-.008314	5.332313	.0512265	F 189.6135	-.062135
Stddev	.001012	.001609	.074624	.0005661	.5035	.001812
%RSD	20.16595	19.35234	1.399460	1.105050	.2655493	2.916180
#1	-.004116	-.008472	5.362274	.0508075	189.9271	-.060450
#2	-.004828	-.006632	5.387301	.0510014	189.0327	-.061904
#3	-.006113	-.009838	5.247366	.0518705	189.8808	-.064052

Elem	Sr4077
Units	ppm
Avg	.5687719
Stddev	.0025357
%RSD	.4458202
#1	.5705255
#2	.5699257
#3	.5658645

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7149.656	86870.17	4971.757	5580.447	7741.594
Stddev	21.172	461.08	3.365	34.493	20.471
%RSD	.2961221	.5307683	.0676769	.6181051	.2644334
#1	7126.561	86619.43	4975.289	5562.711	7719.150
#2	7154.261	86588.79	4968.588	5558.431	7746.392
#3	7168.146	87402.28	4971.395	5620.200	7759.240

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3177-03 Acquired: 9/30/2025 16:31:18 Type: Unk
Method: 6010-200.7 NEW(v228) 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	-.005982	.0107738	.0018691	.0044651	.0077433	4.406631
Stddev	.002157	.0006696	.0011703	.0032563	.0014883	.026667
%RSD	36.05534	6.214815	62.61214	72.92687	19.22043	.6051614
#1	-.005096	.0113135	.0024403	.0045562	.0094222	4.425809
#2	-.004409	.0109834	.0005229	.0011642	.0072218	4.417906
#3	-.008440	.0100245	.0026441	.0076749	.0065860	4.376178

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2973756	-.001118	.0012472	263.0643	.0097527	.0036166
Stddev	.0009662	.000044	.0000897	.9378	.0002819	.0001800
%RSD	.3249145	3.909733	7.193995	.3564736	2.890597	4.977388
#1	.2973576	-.001127	.0012709	263.8970	.0096360	.0037286
#2	.2983506	-.001157	.0011480	263.2475	.0100743	.0034090
#3	.2964184	-.001071	.0013227	262.0485	.0095479	.0037123

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0158272	.1680522	11.18551	29.32269	.0111547	.0000383
Stddev	.0006802	.0009270	.04007	.12970	.0004397	.0005514
%RSD	4.297498	.5516255	.3582546	.4423070	3.941767	1441.361
#1	.0151205	.1672774	11.23062	29.17297	.0115772	-.000536
#2	.0164773	.1678000	11.17186	29.40058	.0111874	.000564
#3	.0158839	.1690792	11.15404	29.39452	.0106996	.000087

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.82675	-.002977	.3704529	15.98387	.2184446	.0003370
Stddev	.08398	.003455	.0008192	.13162	.0020224	.0006428
%RSD	.6073512	116.0521	.2211483	.8234811	.9258213	190.7161
#1	13.90209	-.006937	.3695427	16.07615	.2180671	.0009570
#2	13.73621	-.001410	.3706845	15.83314	.2206291	.0003805
#3	13.84195	-.000583	.3711314	16.04231	.2166375	-.000326

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3177-03 Acquired: 9/30/2025 16:31:18 Type: Unk
Method: 6010-200.7 NEW(v228) 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	-.005065	-.004182	6.019951	.1007680	F 188.6110	-.059339
Stddev	.000730	.004158	.058760	.0006342	1.6267	.006294
%RSD	14.41555	99.41790	.9760841	.6293605	.8624850	10.60631
#1	-.005657	.000563	6.052169	.1001109	190.3753	-.060626
#2	-.004249	-.005921	5.952129	.1008168	188.2872	-.052501
#3	-.005290	-.007188	6.055555	.1013764	187.1705	-.064890

Elem	Sr4077
Units	ppm
Avg	.5895263
Stddev	.0031480
%RSD	.5339839
#1	.5929850
#2	.5887655
#3	.5868284

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7222.559	88364.71	5038.993	5628.319	7818.300
Stddev	20.447	151.50	35.420	29.113	23.271
%RSD	.2831010	.1714454	.7029213	.5172541	.2976454
#1	7201.068	88253.67	5029.907	5594.989	7795.501
#2	7224.837	88537.30	5009.001	5648.775	7817.384
#3	7241.772	88303.17	5078.071	5641.194	7842.016

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3179-01 Acquired: 9/30/2025 16:35:23 Type: Unk
Method: 6010-200.7 NEW(v228) 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	-.002272	.0055051	.0039524	.0042968	.0056083	.6324815
Stddev	.002443	.0045292	.0013789	.0053601	.0022196	.0364809
%RSD	107.4959	82.27224	34.88874	124.7462	39.57695	5.767906
#1	-.004969	.0028467	.0048208	-.001886	.0066777	.5971852
#2	-.001640	.0107347	.0046740	.007149	.0030565	.6700416
#3	-.000208	.0029339	.0023624	.007628	.0070908	.6302176

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2648091	-.001064	.0019482	298.5219	.0162807	.0013188
Stddev	.0014659	.000059	.0000447	.0274	.0007156	.0002453
%RSD	.5535866	5.553973	2.293256	.0091754	4.395556	18.59891
#1	.2654867	-.001105	.0019021	298.5229	.0169456	.0015772
#2	.2658136	-.000996	.0019512	298.5488	.0155233	.0012898
#3	.2631269	-.001090	.0019913	298.4941	.0163732	.0010892

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0093068	.1413083	7.774671	36.35397	.0047525	-.000376
Stddev	.0002498	.0042739	.009374	.05737	.0004009	.000201
%RSD	2.683583	3.024515	.1205685	.1578189	8.434609	53.56963
#1	.0090447	.1368418	7.771521	36.30100	.0043557	-.000215
#2	.0093335	.1417237	7.767278	36.41492	.0051573	-.000601
#3	.0095421	.1453593	7.785214	36.34599	.0047444	-.000311

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.91813	.0048910	.1325135	23.81901	.1838246	.0009598
Stddev	.10603	.0032670	.0021745	.13636	.0018684	.0004681
%RSD	.8896615	66.79707	1.640929	.5724841	1.016391	48.77559
#1	11.79624	.0025292	.1309426	23.66667	.1859091	.0004198
#2	11.98903	.0086195	.1349953	23.86071	.1832642	.0012508
#3	11.96913	.0035243	.1316027	23.92965	.1823006	.0012088

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3179-01 Acquired: 9/30/2025 16:35:23 Type: Unk
Method: 6010-200.7 NEW(v228) 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	-.006425	-.007432	5.614027	.1011732	F 201.8259	-.068395
Stddev	.000572	.001722	.040823	.0014965	2.0155	.006591
%RSD	8.899167	23.16991	.7271599	1.479142	.9986096	9.636798
#1	-.005921	-.006625	5.566901	.0994454	203.9608	-.061997
#2	-.006307	-.006261	5.638505	.1020164	201.5607	-.068023
#3	-.007046	-.009409	5.636675	.1020579	199.9562	-.075163

Elem	Sr4077
Units	ppm
Avg	.6191662
Stddev	.0010192
%RSD	.1646097
#1	.6186194
#2	.6203421
#3	.6185371

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7266.056	84053.91	5029.568	5498.045	7933.645
Stddev	42.069	135.54	25.115	10.073	44.816
%RSD	.5789745	.1612520	.4993498	.1832028	.5648881
#1	7248.861	84018.25	5001.797	5493.236	7909.406
#2	7235.308	84203.71	5050.689	5509.621	7906.168
#3	7313.998	83939.77	5036.219	5491.279	7985.361

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3179-01DUP Acquired: 9/30/2025 16:39:27 Type: Unk
Method: 6010-200.7 NEW(v228) 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	-.003083	.0063482	.0039754	.0023967	.0028356	.6622727
Stddev	.001821	.0019942	.0018290	.0007041	.0010688	.0268242
%RSD	59.05660	31.41321	46.00808	29.37641	37.69206	4.050322
#1	-.005040	.0080086	.0060561	.0017391	.0017053	.6509148
#2	-.002769	.0068997	.0032486	.0031395	.0029717	.6429960
#3	-.001439	.0041363	.0026215	.0023115	.0038299	.6929073

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2634056	-.001132	.0019915	297.2518	.0059433	.0009865
Stddev	.0028923	.000054	.0001044	1.1926	.0005739	.0003269
%RSD	1.098055	4.769021	5.243890	.4012068	9.656053	33.13418
#1	.2603461	-.001079	.0019557	295.9095	.0058944	.0006134
#2	.2637756	-.001187	.0021091	298.1893	.0053955	.0012223
#3	.2660952	-.001129	.0019097	297.6567	.0065401	.0011239

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0081481	.0708297	7.725060	36.26077	.0040423	-.000748
Stddev	.0004707	.0050731	.052318	.08604	.0002139	.001077
%RSD	5.776479	7.162347	.6772555	.2372889	5.291336	143.9850
#1	.0077806	.0681531	7.673133	36.20226	.0041748	-.001980
#2	.0086786	.0766805	7.777761	36.22048	.0041565	.000011
#3	.0079849	.0676554	7.724285	36.35956	.0037955	-.000274

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.26022	.0020752	.1260759	22.47616	.1810738	.0006427
Stddev	.19591	.0049262	.0008391	.34692	.0029126	.0002446
%RSD	1.739838	237.3839	.6655751	1.543497	1.608510	38.05806
#1	11.28687	-.003454	.1256409	22.52316	.1789321	.0006450
#2	11.44144	.005996	.1255435	22.79719	.1798990	.0008861
#3	11.05235	.003684	.1270432	22.10814	.1843904	.0003969

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3179-01DUP Acquired: 9/30/2025 16:39:27 Type: Unk
Method: 6010-200.7 NEW(v228) 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	-.006152	-.003885	5.321942	.1007338	F 200.4021	-.067972
Stddev	.000615	.003195	.045322	.0007361	.9683	.004145
%RSD	9.998309	82.25223	.8516141	.7307410	.4831794	6.098015
#1	-.005443	-.007564	5.343528	.1000252	200.5207	-.068760
#2	-.006544	-.002284	5.352437	.1014947	201.3056	-.063490
#3	-.006469	-.001806	5.269862	.1006814	199.3799	-.071666

Elem	Sr4077
Units	ppm
Avg	.6143930
Stddev	.0037055
%RSD	.6031138
#1	.6116914
#2	.6186173
#3	.6128704

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7247.261	87753.29	4973.940	5601.249	7931.474
Stddev	31.967	695.54	55.124	24.568	27.479
%RSD	.4410924	.7926095	1.108257	.4386178	.3464546
#1	7278.861	87669.27	5030.146	5603.463	7951.501
#2	7214.939	87103.58	4971.708	5575.649	7900.147
#3	7247.985	88487.03	4919.966	5624.635	7942.774

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCV03 Acquired: 9/30/2025 16:43:33 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**4.986873**	**4.692036**	**4.894284**	**5.051598**	**4.926252**	**9.672347**	**9.747223**
Stddev	.011303	.104648	.005657	.000381	.003588	.058397	.034879
%RSD	.2266535	2.230337	.1155879	.0075385	.0728345	.6037531	.3578399
#1	4.988534	4.571846	4.898169	5.051998	4.926515	9.605604	9.708940
#2	4.974831	4.741313	4.887793	5.051240	4.922539	9.697400	9.777200
#3	4.997253	4.762950	4.896889	5.051557	4.929701	9.714038	9.755530

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2488529**	**2.458541**	**24.37535**	**.9816788**	**2.442762**	**1.230109**	**4.774585**
Stddev	.0017320	.002748	.09626	.0017831	.002649	.001150	.052589
%RSD	.6960058	.1117815	.3948976	.1816324	.1084334	.0934961	1.101436
#1	.2494072	2.460155	24.29153	.9832965	2.443354	1.231194	4.737560
#2	.2469116	2.455368	24.48047	.9819727	2.439867	1.228903	4.834781
#3	.2502400	2.460099	24.35404	.9797670	2.445064	1.230230	4.751416

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.427873**	**24.30171**	**2.446284**	**1.219371**	**23.11137**	**2.435910**	**2.435297**
Stddev	.017415	.18283	.004166	.001585	.29392	.008415	.010619
%RSD	.7172821	.7523183	.1702979	.1299911	1.271766	.3454572	.4360609
#1	2.408569	24.09674	2.448624	1.219671	22.87478	2.429457	2.434152
#2	2.442404	24.44796	2.441474	1.220785	23.44040	2.432845	2.446442
#3	2.432645	24.36044	2.448754	1.217658	23.01894	2.445428	2.425296

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.13696**	**4.978646**	**4.921292**	**4.924146**	**4.833735**	**4.639380**	**4.939354**
Stddev	.22801	.032064	.004361	.010779	.013489	.028090	.012600
%RSD	.9446602	.6440366	.0886192	.2189110	.2790677	.6054732	.2550959
#1	23.93380	4.983594	4.919560	4.935775	4.821004	4.609673	4.950296
#2	24.38357	4.944396	4.918062	4.914488	4.832328	4.665511	4.925578
#3	24.09352	5.007949	4.926253	4.922173	4.847872	4.642957	4.942188

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCV03 Acquired: 9/30/2025 16:43:33 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**5.381403**	**4.723621**	**4.869946**
Stddev	.033397	.031245	.047579
%RSD	.6205960	.6614580	.9769978
#1	5.419901	4.688912	4.834794
#2	5.364096	4.749503	4.850957
#3	5.360212	4.732447	4.924088

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7262.253**	**87502.64**	**4910.956**	**5630.451**	**7957.929**
Stddev	6.792	592.53	28.307	59.118	3.182
%RSD	.0935199	.6771602	.5764027	1.049978	.0399868
#1	7269.135	88044.87	4939.451	5663.764	7955.725
#2	7262.068	86870.16	4910.576	5562.193	7961.577
#3	7255.555	87592.88	4882.841	5665.394	7956.484

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCB03 Acquired: 9/30/2025 16:53:38 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.000685**	**-.000535**	**-.001529**	**.0020180**	**-.000861**	**-.008821**	**.0007677**
Stddev	.002936	.001553	.000546	.0005861	.003275	.017974	.0018998
%RSD	428.5316	290.4675	35.68974	29.04305	380.3761	203.7527	247.4595
#1	-.002046	.001232	-.001062	.0014698	.002915	-.006291	.0011950
#2	.002685	-.001153	-.001397	.0026358	-.002923	.007753	-.001309
#3	-.002694	-.001683	-.002129	.0019485	-.002575	-.027926	.002418

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000101**	**-.000048**	**.0022890**	**-.000212**	**-.000365**	**-.000003**	**-.004436**
Stddev	.0000865	.000022	.0019707	.000082	.000280	.000368	.005585
%RSD	856.6091	45.57698	86.09510	38.73127	76.74748	14018.10	125.9239
#1	-.000085	-.000061	.0037226	-.000117	-.000526	-.000288	-.004432
#2	.000084	-.000059	.0031025	-.000265	-.000528	-.000132	-.010023
#3	.000032	-.000023	.0000417	-.000254	-.000042	.000412	.001148

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001121**	**-.002176**	**-.000237**	**-.000636**	**-.165568**	**-.002118**	**.0000660**
Stddev	.002249	.039968	.000094	.000497	.045580	.003723	.0003586
%RSD	200.5788	1836.637	39.59471	78.22334	27.52961	175.8208	543.2638
#1	.000710	-.030629	-.000327	-.000303	-.152635	-.004142	-.000272
#2	-.003631	.043519	-.000245	-.001208	-.216217	-.004390	.000442
#3	-.000442	-.019418	-.000140	-.000397	-.127852	.002179	.000027

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.079725**	**-.003146**	**-.000282**	**.0167912**	**-.000260**	**.0091774**	**.0019231**
Stddev	.061941	.000865	.000355	.0002041	.001877	.0131328	.0009177
%RSD	77.69306	27.49900	125.7377	1.215688	720.9397	143.0985	47.71969
#1	-.055644	-.003823	-.000398	.0165565	.001447	.0225028	.0029766
#2	-.150091	-.003444	.000116	.0168895	.000041	-.003754	.0012969
#3	-.033441	-.002171	-.000565	.0169275	-.002269	.008783	.0014960

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCB03 Acquired: 9/30/2025 16:53:38 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.004913**	**-.009353**	**-.000066**
Stddev	.001643	.005118	.000264
%RSD	33.44370	54.72507	398.3085
#1	-.006797	-.012692	-.000262
#2	-.003780	-.011907	.000234
#3	-.004161	-.003460	-.000170

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7591.217**	**91540.67**	**5059.723**	**5866.155**	**9109.021**
Stddev	2.664	250.97	8.217	7.144	.936
%RSD	.0350876	.2741579	.1623934	.1217820	.0102777
#1	7591.788	91723.80	5069.052	5874.037	9108.398
#2	7588.315	91643.61	5053.562	5864.320	9110.097
#3	7593.549	91254.60	5056.554	5860.107	9108.566

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3179-01LX5 Acquired: 9/30/2025 16:58:55 Type: Unk
Method: 6010-200.7 NEW(v228) 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	-.001078	.0127636	-.000955	.0018152	.0030503	.1380196
Stddev	.000374	.0016792	.001685	.0021600	.0012195	.0196163
%RSD	34.67484	13.15624	176.4481	118.9966	39.97771	14.21271
#1	-.000647	.0135586	-.002395	.0024860	.0016972	.1590434
#2	-.001304	.0108345	-.001368	-.000601	.0040643	.1348083
#3	-.001284	.0138977	.000898	.003560	.0033896	.1202070

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0549697	-.000296	.0003936	60.83417	.0017640	-.000154
Stddev	.0006713	.000119	.0000274	.03144	.0003991	.000220
%RSD	1.221275	40.25493	6.957604	.0516822	22.62718	142.5776
#1	.0557448	-.000434	.0003638	60.86976	.0022248	-.000001
#2	.0545758	-.000222	.0003992	60.81018	.0015250	-.000406
#3	.0545885	-.000233	.0004177	60.82258	.0015422	-.000056

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019480	.0051783	1.590712	7.430013	.0010370	-.000813
Stddev	.0008624	.0110687	.007074	.051035	.0003759	.000863
%RSD	44.27307	213.7518	.4447188	.6868697	36.24503	106.1971
#1	.0010752	.0158446	1.584254	7.488603	.0007590	-.001806
#2	.0019690	-.006253	1.598272	7.395248	.0008874	-.000380
#3	.0027997	.005943	1.589609	7.406187	.0014646	-.000251

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.079684	.0053605	.0252454	4.188280	.0363623	-.000235
Stddev	.030011	.0008544	.0005724	.056835	.0012147	.000342
%RSD	1.443032	15.93894	2.267284	1.356997	3.340474	145.4213
#1	2.045257	.0045030	.0250155	4.165414	.0352439	.000156
#2	2.100315	.0053667	.0248238	4.252986	.0376545	-.000475
#3	2.093482	.0062117	.0258970	4.146438	.0361885	-.000386

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3179-01LX5 Acquired: 9/30/2025 16:58:55 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.0124131	-.000121	1.032717	.0206194	F 40.88314	-.022390
Stddev	.0004002	.002055	.019367	.0006528	.34278	.001549
%RSD	3.223886	1699.412	1.875313	3.166092	.8384349	6.919074
#1	.0125571	.000356	1.010393	.0208891	40.54718	-.021416
#2	.0127213	-.002372	1.045014	.0198749	41.23235	-.021578
#3	.0119608	.001653	1.042745	.0210941	40.86990	-.024177

Elem	Sr4077
Units	ppm
Avg	.1259227
Stddev	.0009181
%RSD	.7291322
#1	.1249186
#2	.1267195
#3	.1261301

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7433.223	90480.35	5012.378	5802.725	8356.435
Stddev	15.616	741.04	8.629	58.245	20.371
%RSD	.2100793	.8190099	.1721495	1.003759	.2437702
#1	7417.111	90743.55	5003.002	5826.307	8333.481
#2	7448.290	89643.64	5014.148	5736.386	8372.361
#3	7434.267	91053.87	5019.985	5845.481	8363.462

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3179-02 Acquired: 9/30/2025 17:03:02 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.7919400**	**1.995211**	**.9301691**	**2.016972**	**.7821257**	**2.503286**
Stddev	.0018679	.049441	.0004391	.014138	.0037091	.029740
%RSD	.2358585	2.478004	.0472045	.7009305	.4742338	1.188033
#1	.7931864	2.051906	.9305713	2.032745	.7862997	2.506286
#2	.7897924	1.972670	.9302355	2.005441	.7792078	2.472159
#3	.7928412	1.961057	.9297007	2.012729	.7808695	2.531411

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4613648**	**.1889970**	**.1929470**	**297.4011**	**.3956704**	**.1927037**
Stddev	.0025848	.0005948	.0005303	.2532	.0033968	.0005395
%RSD	.5602521	.3146855	.2748423	.0851406	.8585020	.2799753
#1	.4642195	.1893462	.1935585	297.6573	.3926787	.1933265
#2	.4606920	.1893345	.1926692	297.3951	.3993630	.1923817
#3	.4591830	.1883103	.1926133	297.1510	.3949694	.1924028

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2953538**	**2.963245**	**8.022178**	**37.83195**	**.4824323**	**.0681706**
Stddev	.0006235	.007738	.001276	.06755	.0005602	.0014728
%RSD	.2111204	.2611460	.0159043	.1785562	.1161248	2.160496
#1	.2960286	2.971049	8.021200	37.89679	.4829220	.0664728
#2	.2947988	2.955574	8.023621	37.83708	.4825534	.0691050
#3	.2952340	2.963113	8.021713	37.76198	.4818214	.0689339

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.50998**	**.2789078**	**.3258403**	**32.82591**	**.4542071**	**.4046802**
Stddev	.15235	.0061109	.0009449	.25665	.0015320	.0006720
%RSD	1.049997	2.190996	.2899845	.7818477	.3372952	.1660641
#1	14.34185	.2799268	.3252662	32.56046	.4547735	.4053845
#2	14.63889	.2844451	.3269308	33.07274	.4553753	.4040460
#3	14.54920	.2723515	.3253238	32.84453	.4524725	.4046102

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3179-02 Acquired: 9/30/2025 17:03:02 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.6882887**	**.1829496**	**6.226373**	**5.967214**	F **208.9431**	**.1226760**
Stddev	.0021489	.0016053	.057618	.025618	1.7786	.0057916
%RSD	.3122152	.8774424	.9253858	.4293112	.8512416	4.721070
#1	.6906674	.1840112	6.173553	5.996070	210.9967	.1291514
#2	.6877113	.1811028	6.287817	5.947147	207.9016	.1179910
#3	.6864874	.1837347	6.217747	5.958425	207.9308	.1208856

Elem	Sr4077
Units	ppm
Avg	**.8047459**
Stddev	.0016335
%RSD	.2029783
#1	.8058990
#2	.8028767
#3	.8054619

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7187.917**	**86067.42**	**4951.260**	**5562.864**	**7773.794**
Stddev	13.140	381.65	19.327	5.630	6.083
%RSD	.1828066	.4434311	.3903385	.1012146	.0782489
#1	7199.418	86459.96	4932.350	5560.945	7780.664
#2	7190.738	85697.68	4970.978	5569.202	7771.625
#3	7173.596	86044.62	4950.453	5558.443	7769.093

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3179-03 Acquired: 9/30/2025 17:06:58 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.7960824**	**1.961347**	**.9378918**	**2.033015**	**.7926176**	**2.528989**
Stddev	.0006070	.126009	.0028507	.008493	.0061120	.007726
%RSD	.0762524	6.424598	.3039494	.4177346	.7711169	.3054941
#1	.7958367	2.086420	.9347400	2.033206	.7859257	2.521444
#2	.7967737	1.963198	.9402899	2.041410	.7979052	2.528639
#3	.7956367	1.834423	.9386457	2.024428	.7940218	2.536884

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4618859**	**.1907507**	**.1946481**	**299.0324**	**.3934419**	**.1947907**
Stddev	.0022726	.0024547	.0006347	1.0590	.0015306	.0006410
%RSD	.4920315	1.286889	.3260706	.3541561	.3890365	.3290836
#1	.4634326	.1933015	.1941186	300.2542	.3926159	.1941012
#2	.4592766	.1884048	.1953517	298.4662	.3952080	.1953686
#3	.4629484	.1905458	.1944741	298.3768	.3925016	.1949023

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2973088**	**2.905344**	**7.995230**	**38.15277**	**.4877061**	**.0605815**
Stddev	.0004783	.028792	.025543	.06869	.0015619	.0005984
%RSD	.1608897	.9910171	.3194827	.1800333	.3202542	.9877613
#1	.2967578	2.889055	8.009536	38.16969	.4863718	.0608980
#2	.2975501	2.938588	8.010415	38.07720	.4894241	.0609552
#3	.2976184	2.888388	7.965740	38.21141	.4873223	.0598913

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.09673**	**.2839018**	**.3233487**	**32.15233**	**.4585473**	**.4093792**
Stddev	.10859	.0046906	.0031461	.32517	.0060490	.0002484
%RSD	.7702908	1.652190	.9729903	1.011334	1.319156	.0606690
#1	14.01421	.2880032	.3257847	31.83663	.4642735	.4094396
#2	14.21975	.2849147	.3197967	32.48620	.4522204	.4095918
#3	14.05624	.2787875	.3244648	32.13417	.4591478	.4091062

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3179-03 Acquired: 9/30/2025 17:06:58 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.6942946	.1843973	6.117096	6.002213	F 209.2682	.1239745
Stddev	.0025320	.0019942	.035013	.036208	1.5485	.0040569
%RSD	.3646895	1.081476	.5723841	.6032511	.7399824	3.272373
#1	.6917515	.1829692	6.113919	6.029751	210.7747	.1199081
#2	.6968154	.1866758	6.153589	6.015688	209.3490	.1280218
#3	.6943169	.1835470	6.083779	5.961199	207.6808	.1239935

Elem	Sr4077
Units	ppm
Avg	.8092780
Stddev	.0016723
%RSD	.2066390
#1	.8111646
#2	.8086912
#3	.8079782

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7278.514	88283.38	4960.688	5677.419	7868.812
Stddev	30.191	1084.73	36.867	42.588	24.610
%RSD	.4148030	1.228688	.7431838	.7501224	.3127510
#1	7244.000	88581.72	4923.568	5688.065	7840.580
#2	7300.025	87080.70	4961.198	5630.518	7880.121
#3	7291.519	89187.71	4997.297	5713.673	7885.733

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3179-01A Acquired: 9/30/2025 17:10:54 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.7935787	1.806582	.9312070	2.016588	.7917037	2.512761
Stddev	.0011634	.036743	.0039368	.005180	.0039261	.001667
%RSD	.1466075	2.033846	.4227669	.2568762	.4958995	.0663406
#1	.7945575	1.781340	.9355089	2.021570	.7958869	2.514642
#2	.7922924	1.848736	.9303282	2.016965	.7911252	2.511468
#3	.7938861	1.789670	.9277838	2.011230	.7880990	2.512173

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4506331	.1870780	.1930550	292.2248	.3979031	.1937370
Stddev	.0043706	.0015136	.0012499	2.4212	.0031824	.0010353
%RSD	.9698845	.8090802	.6474505	.8285534	.7998027	.5343864
#1	.4546790	.1888105	.1944364	294.5505	.3970726	.1949253
#2	.4512226	.1864107	.1927266	292.4057	.3952183	.1930297
#3	.4459976	.1860126	.1920021	289.7182	.4014185	.1932560

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2957084	2.976342	7.797370	37.33699	.4838991	.0681363
Stddev	.0010688	.029871	.068847	.23187	.0028591	.0005127
%RSD	.3614438	1.003607	.8829454	.6210158	.5908487	.7524802
#1	.2969239	2.966740	7.866130	37.57124	.4872003	.0675451
#2	.2949153	2.952454	7.797541	37.33215	.4822797	.0684595
#3	.2952861	3.009834	7.728437	37.10758	.4822172	.0684043

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.11315	.2822328	.3267524	32.50732	.4476313	.4090582
Stddev	.15473	.0014456	.0017881	.24173	.0062629	.0023765
%RSD	1.096361	.5122041	.5472208	.7436209	1.399114	.5809743
#1	14.08441	.2810875	.3252677	32.32884	.4547851	.4114080
#2	13.97481	.2817538	.3262521	32.41070	.4431373	.4091108
#3	14.28024	.2838571	.3287373	32.78242	.4449715	.4066558

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3179-01A Acquired: 9/30/2025 17:10:54 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.6900582	.1806549	6.240071	5.922334	F 202.4158	.1207717
Stddev	.0052875	.0024035	.082320	.027217	1.2957	.0054497
%RSD	.7662447	1.330461	1.319212	.4595732	.6401417	4.512399
#1	.6959601	.1831526	6.167956	5.937240	202.9263	.1161376
#2	.6884616	.1804540	6.222499	5.938842	203.3785	.1267757
#3	.6857530	.1783581	6.329758	5.890920	200.9425	.1194019

Elem	Sr4077
Units	ppm
Avg	.7916195
Stddev	.0063234
%RSD	.7987882
#1	.7975094
#2	.7924117
#3	.7849373

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7337.809	87163.99	5070.062	5630.299	7963.362
Stddev	22.235	735.98	42.753	40.807	31.050
%RSD	.3030222	.8443644	.8432479	.7247808	.3899137
#1	7312.452	87565.99	5022.923	5674.927	7927.512
#2	7346.997	87611.43	5080.933	5621.082	7981.723
#3	7353.978	86314.56	5106.330	5594.889	7980.852

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: PB169892BL Acquired: 9/30/2025 17:14:50 Type: Unk
Method: 6010-200.7 NEW(v228) 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	-.002153	.0112666	-.000304	.0028673	-.001182	.0071126
Stddev	.002815	.0019727	.001581	.0034087	.001349	.0137276
%RSD	130.7064	17.50938	519.6412	118.8831	114.0694	193.0055
#1	-.005372	.0124003	-.001056	.0027884	-.000912	.0182971
#2	-.000938	.0124107	-.001369	.0063148	-.002646	-.008207
#3	-.000151	.0089887	.001512	-.000501	.000011	.011248

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003190	-.000003	.0000129	.0022249	.0004406	-.000220
Stddev	.002983	.000076	.0000588	.0266451	.0002381	.000186
%RSD	93.51145	2923.084	457.8170	1197.596	54.03499	84.33291
#1	-.002747	.000076	.0000701	.0021005	.0006009	-.000209
#2	-.000453	-.000074	.0000158	.0289319	.0005539	-.000412
#3	-.006369	-.000010	-.000047	-.024358	.0001670	-.000041

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000253	-.000902	-.000584	.0334414	.0001559	-.000795
Stddev	.000290	.008866	.000432	.0682330	.0001047	.000139
%RSD	114.5958	983.1592	73.91017	204.0372	67.17432	17.48717
#1	.000073	-.010459	-.000582	-.043537	.0001105	-.000794
#2	-.000349	.000699	-.000153	.057386	.0002756	-.000657
#3	-.000483	.007055	-.001017	.086475	.0000815	-.000935

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.068247	-.000992	.0002323	-.007463	-.003965	.0006261
Stddev	.020157	.001415	.0005735	.062206	.000900	.0002911
%RSD	29.53545	142.6264	246.8531	833.5755	22.68785	46.49484
#1	-.051751	-.002596	.0000358	.026031	-.002930	.0009550
#2	-.090715	.000079	-.000217	-.079239	-.004555	.0004014
#3	-.062274	-.000459	.000878	.030821	-.004410	.0005220

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: PB169892BL Acquired: 9/30/2025 17:14:50 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.0159951	-.001067	.0366483	.0010025	F .2460822	-.008510
Stddev	.0001590	.003925	.0062153	.0005637	.0260659	.000352
%RSD	.9941615	368.0018	16.95938	56.22859	10.59236	4.139662
#1	.0159906	.003409	.0375284	.0016358	.2730302	-.008862
#2	.0158384	-.003924	.0423767	.0008160	.2442179	-.008157
#3	.0161563	-.002685	.0300398	.0005557	.2209985	-.008512

Elem	Sr4077
Units	ppm
Avg	-.000143
Stddev	.000053
%RSD	36.83828
#1	-.000165
#2	-.000181
#3	-.000083

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7694.110	91198.98	5151.754	5947.408	9092.321
Stddev	22.591	386.09	19.059	20.089	16.526
%RSD	.2936181	.4233538	.3699473	.3377707	.1817542
#1	7715.541	91575.30	5129.809	5938.965	9098.455
#2	7670.515	90803.80	5164.162	5932.920	9073.605
#3	7696.275	91217.85	5161.291	5970.341	9104.903

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: PB169892BS Acquired: 9/30/2025 17:19:02 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.6842831**	**1.690214**	**.8220645**	**1.774386**	**.8604743**	**1.691023**
Stddev	.0025122	.056005	.0015116	.008526	.0014547	.017325
%RSD	.3671245	3.313487	.1838757	.4804965	.1690628	1.024542
#1	.6852468	1.732874	.8222818	1.779280	.8609277	1.697955
#2	.6814317	1.626793	.8204560	1.764541	.8588468	1.671305
#3	.6861707	1.710975	.8234556	1.779336	.8616483	1.703808

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1683558**	**.1759951**	**.1648777**	**.8572313**	**.3389328**	**.1661204**
Stddev	.0036289	.0017145	.0001798	.0266213	.0005444	.0004254
%RSD	2.155492	.9741985	.1090539	3.105496	.1606258	.2560532
#1	.1709967	.1776293	.1650207	.8862246	.3384591	.1663606
#2	.1642179	.1742102	.1646758	.8338897	.3395276	.1663714
#3	.1698529	.1761457	.1649366	.8515795	.3388119	.1656293

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2630490**	**2.523484**	**.1724742**	**1.688383**	**.4150359**	**.0656046**
Stddev	.0004733	.008664	.0015182	.048574	.0003861	.0005591
%RSD	.1799148	.3433175	.8802497	2.876927	.0930398	.8522081
#1	.2634582	2.527884	.1733006	1.700108	.4154680	.0662047
#2	.2631582	2.513503	.1707221	1.635020	.4147246	.0650985
#3	.2625307	2.529063	.1734000	1.730021	.4149150	.0655107

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.447831**	**.2535628**	**.1744823**	**8.746002**	**.2598926**	**.4209701**
Stddev	.019202	.0015319	.0006312	.058633	.0019739	.0010075
%RSD	.7844591	.6041298	.3617339	.6703956	.7595045	.2393250
#1	2.448470	.2527064	.1740013	8.698528	.2610865	.4219485
#2	2.428317	.2526507	.1751969	8.811542	.2576142	.4199358
#3	2.466706	.2553313	.1742486	8.727935	.2609771	.4210259

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: PB169892BS Acquired: 9/30/2025 17:19:02 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.7224173	.2022269	.8763718	4.885420	F .1313008	.1690845
Stddev	.0014591	.0000933	.0467582	.037119	.0033411	.0019466
%RSD	.2019798	.0461300	5.335430	.7597870	2.544613	1.151232
#1	.7234214	.2021405	.8434187	4.893753	.1336882	.1713320
#2	.7207435	.2023258	.9298875	4.844843	.1327316	.1679355
#3	.7230869	.2022143	.8558091	4.917664	.1274826	.1679859

Elem	Sr4077
Units	ppm
Avg	.1669281
Stddev	.0009746
%RSD	.5838716
#1	.1677008
#2	.1658332
#3	.1672505

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7607.660	90490.05	5128.971	5901.668	8795.170
Stddev	22.007	562.49	26.611	35.927	21.943
%RSD	.2892719	.6216073	.5188372	.6087600	.2494842
#1	7583.519	91139.56	5121.490	5940.321	8769.870
#2	7612.858	90165.69	5158.522	5869.294	8806.623
#3	7626.602	90164.89	5106.902	5895.391	8809.016

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3215-01 Acquired: 9/30/2025 17:23:02 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.0631941**	**-.000288**	**1.679702**	**.0089627**	**-.019260**	**157.0413**	**1.610931**
Stddev	.0023036	.000762	.002923	.0024535	.002588	.4071	.013913
%RSD	3.645317	264.4310	.1739917	27.37457	13.43676	.2592521	.8636388
#1	.0658408	.000435	1.681097	.0063295	-.017834	156.8994	1.608090
#2	.0621007	-.001083	1.681667	.0093741	-.017698	157.5004	1.626045
#3	.0616408	-.000217	1.676344	.0111844	-.022247	156.7242	1.598658

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0136795**	**-.002132**	**18.69256**	**.2881459**	**.1384063**	**.6374478**	**275.6441**
Stddev	.0000296	.000361	.11666	.0008412	.0001598	.0002328	1.0582
%RSD	.2163454	16.91206	.6240749	.2919323	.1154276	.0365234	.3838837
#1	.0136783	-.002401	18.66716	.2888431	.1385837	.6376524	276.2820
#2	.0137097	-.002274	18.81982	.2872116	.1383615	.6374965	276.2277
#3	.0136505	-.001722	18.59070	.2883831	.1382737	.6371945	274.4227

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.483498**	**34.53246**	**.2559362**	**.0015773**	**7.470952**	**.3717725**	**.8212383**
Stddev	.033485	.16749	.0009628	.0001663	.041255	.0005813	.0009700
%RSD	.7468603	.4850108	.3761844	10.54130	.5522042	.1563625	.1181209
#1	4.476782	34.49197	.2559266	.0013917	7.437548	.3717299	.8211525
#2	4.519833	34.71648	.2569038	.0017126	7.517067	.3723739	.8203140
#3	4.453880	34.38893	.2549783	.0016276	7.458241	.3712136	.8222484

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**13.62236**	**.1759079**	**.0043582**	**.0371674**	**4.023916**	**2.996982**	**8.561214**
Stddev	.02153	.0024039	.0002193	.0006883	.031563	.018215	.079759
%RSD	.1580152	1.366573	5.032638	1.851855	.7843804	.6077830	.9316345
#1	13.59760	.1786210	.0041227	.0376267	4.006846	2.994051	8.486364
#2	13.63662	.1740434	.0043952	.0374994	4.060337	3.016485	8.552166
#3	13.63285	.1750594	.0045566	.0363761	4.004563	2.980410	8.645111

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3215-01 Acquired: 9/30/2025 17:23:02 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**3.605468**	**.1593981**	**-.125995**
Stddev	.045805	.0046978	.000829
%RSD	1.270444	2.947207	.6580648
#1	3.562340	.1576000	-.126948
#2	3.600515	.1647293	-.125601
#3	3.653549	.1558649	-.125437

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**9089.744**	**105450.4**	**6326.006**	**7020.251**	**8158.659**
Stddev	20.340	354.9	45.041	32.628	14.194
%RSD	.2237636	.3365358	.7119950	.4647685	.1739703
#1	9074.434	105789.6	6375.706	7030.639	8144.615
#2	9112.823	105479.8	6287.885	7046.421	8172.998
#3	9081.976	105081.7	6314.426	6983.694	8158.363

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3220-01 Acquired: 9/30/2025 17:27:03 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.0699941**	**-.001021**	**.5008838**	**.0058390**	**-.026795**	**198.9239**	**.7971428**
Stddev	.0026635	.006139	.0031432	.0016837	.000911	.3423	.0032145
%RSD	3.805300	601.1634	.6275316	28.83445	3.401023	.1720655	.4032481
#1	.0669905	.003337	.4994036	.0040201	-.026972	199.1463	.7975503
#2	.0709230	-.008043	.5044938	.0061541	-.027605	198.5297	.8001341
#3	.0720687	.001642	.4987539	.0073429	-.025808	199.0956	.7937441

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0152885**	**-.001781**	**46.26538**	**.2345006**	**.1506945**	**.6332032**	**316.6714**
Stddev	.0002553	.000064	.05118	.0006569	.0007421	.0020678	2.5888
%RSD	1.669813	3.608858	.1106256	.2801406	.4924818	.3265571	.8174987
#1	.0155094	-.001830	46.32294	.2342502	.1508807	.6336552	316.6307
#2	.0153470	-.001805	46.22498	.2352459	.1513258	.6350076	319.2803
#3	.0150090	-.001709	46.24822	.2340057	.1498770	.6309468	314.1032

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.667675**	**50.21139**	**.2884247**	**.0002727**	**10.55894**	**.4951389**	**.6254046**
Stddev	.023511	.08399	.0013854	.0009827	.09584	.0032365	.0026718
%RSD	.5036877	.1672826	.4803436	360.2925	.9076553	.6536440	.4272079
#1	4.679516	50.26384	.2877902	.0006726	10.54829	.4976086	.6223203
#2	4.682911	50.11451	.2900138	.0009924	10.65965	.4963330	.6268832
#3	4.640598	50.25581	.2874702	-.000847	10.46886	.4914751	.6270102

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**15.44481**	**.2166705**	**.0038808**	**.0353045**	**4.945040**	**3.548928**	**9.582972**
Stddev	.11316	.0108571	.0004399	.0007705	.009946	.026805	.028263
%RSD	.7326961	5.010885	11.33550	2.182578	.2011285	.7552966	.2949298
#1	15.37686	.2189076	.0042973	.0354330	4.947471	3.577778	9.615605
#2	15.57545	.2262349	.0034207	.0344778	4.953544	3.544213	9.567018
#3	15.38213	.2048691	.0039243	.0360028	4.934104	3.524794	9.566294

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3220-01 Acquired: 9/30/2025 17:27:03 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**3.451386**	**.1921964**	**-.044400**
Stddev	.011617	.0019920	.002153
%RSD	.3365827	1.036413	4.849830
#1	3.462893	.1905776	-.044055
#2	3.451603	.1915907	-.046705
#3	3.439663	.1944209	-.042440

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**9514.044**	**112082.8**	**6642.082**	**7353.419**	**7833.073**
Stddev	40.691	425.6	11.874	36.487	41.219
%RSD	.4276907	.3797470	.1787700	.4961930	.5262153
#1	9482.742	112095.1	6629.592	7323.399	7801.385
#2	9499.350	111651.2	6643.429	7342.829	7818.161
#3	9560.041	112502.2	6653.225	7394.030	7879.672

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3221-01 Acquired: 9/30/2025 17:31:03 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.1105742**	**-.001005**	**.6636533**	**.0048463**	**-.026147**	**151.1826**	**.8294106**
Stddev	.0023832	.000794	.0049765	.0024020	.004092	.1527	.0029625
%RSD	2.155245	79.06313	.7498625	49.56333	15.64799	.1010201	.3571799
#1	.1133240	-.000164	.6600381	.0020847	-.027706	151.0100	.8298284
#2	.1091072	-.001742	.6615926	.0064499	-.029231	151.3000	.8321421
#3	.1092915	-.001108	.6693291	.0060044	-.021506	151.2379	.8262614

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0159393**	**-.001413**	**138.6457**	**.2294263**	**.2157234**	**.7744975**	**308.6214**
Stddev	.0001013	.000250	.2950	.0008971	.0004949	.0019449	2.3655
%RSD	.6355812	17.65850	.2127973	.3910088	.2294295	.2511150	.7664703
#1	.0158239	-.001646	138.4097	.2286370	.2152468	.7726258	310.7876
#2	.0160132	-.001150	138.9765	.2292401	.2156886	.7765081	306.0974
#3	.0159810	-.001444	138.5510	.2304019	.2162348	.7743585	308.9794

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.513988**	**122.1097**	**.2425891**	**-.000277**	**11.93198**	**.4604073**	**1.029505**
Stddev	.019456	.2668	.0005124	.001366	.10624	.0042104	.000882
%RSD	.4310101	.2185328	.2112381	492.5121	.8903471	.9144912	.0856271
#1	4.503427	121.8475	.2419976	.000756	12.04779	.4621281	1.028968
#2	4.536440	122.1005	.2428695	-.001826	11.83905	.4634847	1.029024
#3	4.502096	122.3810	.2429001	.000237	11.90908	.4556091	1.030522

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**12.56766**	**.2167464**	**.0079777**	**.0295765**	**5.320843**	**3.066484**	**7.018810**
Stddev	.05262	.0134914	.0002411	.0010864	.011854	.084561	.030610
%RSD	.4186991	6.224527	3.021869	3.673106	.2227822	2.757592	.4361197
#1	12.62789	.2271783	.0082549	.0283317	5.309437	3.164114	7.043324
#2	12.53061	.2015104	.0078619	.0303331	5.333099	3.016348	7.028606
#3	12.54448	.2215505	.0078165	.0300647	5.319993	3.018989	6.984501

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3221-01 Acquired: 9/30/2025 17:31:03 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**2.464061**	**.1898205**	**-.073537**
Stddev	.007876	.0014318	.002891
%RSD	.3196275	.7542913	3.931247
#1	2.473056	.1895334	-.075657
#2	2.460726	.1885540	-.070244
#3	2.458401	.1913741	-.074712

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8867.710**	**107154.6**	**6361.070**	**6935.158**	**7597.598**
Stddev	38.905	413.2	49.335	21.425	33.977
%RSD	.4387311	.3856155	.7755694	.3089388	.4472129
#1	8879.429	106748.1	6399.178	6929.002	7609.156
#2	8824.292	107574.2	6305.346	6958.988	7559.349
#3	8899.409	107141.4	6378.688	6917.485	7624.289

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3222-01 Acquired: 9/30/2025 17:35:03 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.0478351**	**.0025311**	**.2726190**	**.0027546**	**-.019493**	**116.1274**	**.5404139**
Stddev	.0008583	.0011902	.0020403	.0016631	.001425	1.0367	.0063415
%RSD	1.794303	47.02107	.7484073	60.37645	7.309196	.8926993	1.173445
#1	.0471019	.0013442	.2739353	.0046348	-.018301	115.0197	.5346093
#2	.0476241	.0037245	.2702687	.0021531	-.019109	116.2882	.5394503
#3	.0487792	.0025245	.2736530	.0014759	-.021071	117.0743	.5471819

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0106054**	**-.001779**	**77.50753**	**.2137292**	**.1306027**	**.6139058**	**265.4557**
Stddev	.0000979	.000107	.66907	.0005496	.0002938	.0012593	2.5050
%RSD	.9233609	6.009849	.8632353	.2571494	.2249572	.2051313	.9436504
#1	.0105176	-.001791	76.85535	.2132816	.1302695	.6125551	264.5618
#2	.0107110	-.001667	77.47495	.2135633	.1308246	.6141147	263.5204
#3	.0105876	-.001879	78.19230	.2143426	.1307140	.6150476	268.2850

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.814879**	**59.36294**	**.2255263**	**-.000233**	**5.329121**	**.4880092**	**.5371314**
Stddev	.020214	.47480	.0010082	.000581	.050865	.0046627	.0016792
%RSD	.5298672	.7998294	.4470603	249.4166	.9544747	.9554584	.3126304
#1	3.803652	58.88507	.2250076	-.000807	5.270470	.4845786	.5389356
#2	3.802771	59.36914	.2248830	-.000244	5.361143	.4861308	.5368447
#3	3.838215	59.83461	.2266883	.000353	5.355750	.4933181	.5356141

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**8.881313**	**.4648594**	**.0081180**	**.0493943**	**6.649852**	**2.944617**	**5.467867**
Stddev	.038553	.0027819	.0004337	.0014030	.037529	.033142	.035065
%RSD	.4340920	.5984279	5.342505	2.840321	.5643637	1.125510	.6412998
#1	8.849924	.4644000	.0086151	.0486485	6.613192	2.906373	5.463631
#2	8.869669	.4623358	.0078165	.0485217	6.648170	2.962526	5.435111
#3	8.924346	.4678423	.0079225	.0510126	6.688194	2.964950	5.504857

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3222-01 Acquired: 9/30/2025 17:35:03 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**3.516589**	**.1169540**	**-.088744**
Stddev	.016153	.0016270	.001903
%RSD	.4593455	1.391186	2.144803
#1	3.513315	.1177116	-.088299
#2	3.502324	.1180641	-.087102
#3	3.534129	.1150863	-.090830

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**9154.593**	**108486.3**	**6507.009**	**7137.503**	**7942.216**
Stddev	33.367	680.6	31.906	20.350	19.976
%RSD	.3644802	.6273839	.4903273	.2851083	.2515207
#1	9153.476	109014.4	6543.691	7160.947	7936.876
#2	9121.799	108726.3	6491.629	7124.407	7925.453
#3	9188.505	107718.2	6485.706	7127.155	7964.320

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCV04 Acquired: 9/30/2025 17:39:03 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**4.959390**	**5.170732**	**4.874347**	**5.025340**	**4.903275**	**9.552408**	**9.780038**
Stddev	.006385	.125534	.007622	.011313	.008211	.037231	.054239
%RSD	.1287513	2.427780	.1563636	.2251287	.1674648	.3897542	.5545841
#1	4.964618	5.067554	4.868873	5.015056	4.897671	9.509480	9.723545
#2	4.961280	5.310494	4.871116	5.037459	4.899455	9.571852	9.784871
#3	4.952274	5.134147	4.883052	5.023505	4.912701	9.575891	9.831698

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2452545**	**2.449896**	**24.32987**	**.9713398**	**2.437752**	**1.223985**	**4.872949**
Stddev	.0006743	.004028	.13309	.0033732	.004216	.002308	.011826
%RSD	.2749340	.1644203	.5470065	.3472715	.1729614	.1885576	.2426876
#1	.2448037	2.447136	24.18162	.9715745	2.436167	1.222838	4.859886
#2	.2460297	2.448033	24.36895	.9745895	2.434557	1.222475	4.882927
#3	.2449302	2.454518	24.43904	.9678554	2.442531	1.226642	4.876033

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.431977**	**24.04704**	**2.442754**	**1.210621**	**22.99816**	**2.424875**	**2.435122**
Stddev	.014263	.09517	.002908	.002183	.10381	.013735	.006389
%RSD	.5864639	.3957790	.1190393	.1803259	.4513880	.5664032	.2623781
#1	2.417109	23.97658	2.441879	1.208576	22.89103	2.409529	2.439607
#2	2.433276	24.15531	2.440384	1.212920	23.00513	2.429084	2.437952
#3	2.445546	24.00924	2.445999	1.210366	23.09830	2.436013	2.427806

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.31655**	**4.915180**	**4.882727**	**4.900185**	**4.831182**	**4.623544**	**4.936435**
Stddev	.06034	.015258	.005799	.001675	.029682	.004905	.010191
%RSD	.2481614	.3104212	.1187609	.0341744	.6143863	.1060947	.2064376
#1	24.27030	4.901202	4.876718	4.898291	4.798416	4.618321	4.925150
#2	24.38481	4.931457	4.883175	4.901467	4.838856	4.628054	4.944964
#3	24.29454	4.912880	4.888290	4.900798	4.856273	4.624256	4.939191

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCV04 Acquired: 9/30/2025 17:39:03 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**5.159416**	**4.636130**	**4.827599**
Stddev	.015406	.024855	.033872
%RSD	.2986068	.5361150	.7016340
#1	5.152020	4.608503	4.803060
#2	5.177126	4.643211	4.813494
#3	5.149102	4.656676	4.866245

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7400.113**	**89585.54**	**5070.696**	**5755.876**	**8089.857**
Stddev	21.659	507.07	36.694	34.180	20.243
%RSD	.2926811	.5660161	.7236450	.5938248	.2502317
#1	7402.716	89914.32	5102.018	5773.811	8091.996
#2	7420.353	89001.57	5030.324	5716.461	8108.946
#3	7377.271	89840.74	5079.746	5777.355	8068.629

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCB04 Acquired: 9/30/2025 17:43:07 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000557**	**.0091160**	**.0004706**	**.0068221**	**-.000120**	**.0170235**
Stddev	.000369	.0021960	.0006819	.0013376	.000984	.0153118
%RSD	66.16509	24.08912	144.8776	19.60616	822.8603	89.94524
#1	-.000352	.0089585	.0012163	.0055350	.000053	.0183131
#2	-.000337	.0070030	.0003168	.0067263	.000767	.0011076
#3	-.000983	.0113865	-.000121	.0082050	-.001179	.0316496

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001722**	**-.000122**	**-.000153**	**-.008319**	**-.000000**	**-.000249**
Stddev	.000301	.000055	.000082	.021304	.000240	.000171
%RSD	17.49217	45.19159	53.31673	256.0923	70173.09	68.81696
#1	-.002021	-.000185	-.000139	-.016083	-.000246	-.000052
#2	-.001726	-.000095	-.000080	-.024652	.000235	-.000359
#3	-.001419	-.000086	-.000241	.015778	.000009	-.000337

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000300**	**-.012702**	**.0007358**	**-.038680**	**-.000082**	**-.000516**
Stddev	.000199	.009806	.0005379	.029047	.000336	.000237
%RSD	66.16787	77.20527	73.10751	75.09600	408.2176	45.88333
#1	-.000071	-.004575	.0005962	-.070196	-.000411	-.000322
#2	-.000429	-.023594	.0013297	-.032859	.000260	-.000446
#3	-.000400	-.009937	.0002814	-.012983	-.000096	-.000781

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.286125**	**.0002540**	**.0004016**	**-.340153**	**-.000407**	**.0008246**
Stddev	.014168	.0026711	.0001120	.029963	.001038	.0002999
%RSD	4.951676	1051.692	27.88319	8.808654	255.2030	36.37214
#1	-.294532	-.000082	.0005209	-.336271	.000777	.0011332
#2	-.269767	-.002233	.0003851	-.312320	-.000834	.0005342
#3	-.294075	.003077	.0002988	-.371868	-.001163	.0008065

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCB04 Acquired: 9/30/2025 17:43:07 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006197	.0000576	.0260631	.0014297	F .0106721	F -.019467
Stddev	.000757	.0028653	.0091369	.0002775	.0002091	.007513
%RSD	12.21553	4972.025	35.05698	19.41051	1.959125	38.59154
#1	-.005896	.0006761	.0348674	.0016740	.0105101	-.012787
#2	-.005636	-.003066	.0266956	.0014871	.0109081	-.027600
#3	-.007058	.002563	.0166264	.0011279	.0105980	-.018013

Elem	Sr4077
Units	ppm
Avg	-.000155
Stddev	.000376
%RSD	242.0379
#1	-.000525
#2	.000227
#3	-.000169

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7675.318	93042.23	5153.552	5952.709	9076.732
Stddev	22.328	534.55	20.352	39.857	23.630
%RSD	.2909102	.5745241	.3949156	.6695554	.2603325
#1	7650.340	93424.49	5134.376	5991.677	9055.841
#2	7693.340	92431.40	5174.905	5912.020	9102.378
#3	7682.275	93270.81	5151.373	5954.431	9071.978

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3230-01 Acquired: 9/30/2025 17:47:18 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.0473306	.0071463	.2931558	-.003282	-.003236	72.37848
Stddev	.0026333	.0031726	.0023053	.003641	.002863	.19471
%RSD	5.563698	44.39505	.7863891	110.9391	88.44955	.2690161
#1	.0455464	.0090715	.2932108	-.005740	-.001650	72.24471
#2	.0460904	.0034845	.2908235	-.005006	-.001518	72.60187
#3	.0503551	.0088829	.2954332	.000901	-.006541	72.28887

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4637079	.0069093	-.000215	912.5548	.2680507	2.605633
Stddev	.0024386	.0000839	.000207	8.0436	.0021229	.002360
%RSD	.5258906	1.215046	96.53458	.8814379	.7919889	.0905884
#1	.4609501	.0068710	.000024	914.4146	.2675550	2.608028
#2	.4655794	.0070055	-.000344	919.5056	.2703776	2.603309
#3	.4645943	.0068513	-.000325	903.7442	.2662195	2.605563

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6821831	186.6072	2.576569	150.6870	.4158631	-.000991
Stddev	.0011910	.5643	.013708	.3750	.0005992	.000771
%RSD	.1745840	.3023915	.5320250	.2488359	.1440841	77.71421
#1	.6811866	185.9725	2.571084	150.3082	.4165406	-.001203
#2	.6818606	186.7971	2.592170	151.0580	.4156458	-.001634
#3	.6835021	187.0521	2.566453	150.6950	.4154028	-.000137

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.254556	.2107467	.7815688	7.923191	.2054885	.0968617
Stddev	.006590	.0003857	.0013699	.074653	.0051345	.0006518
%RSD	.2922916	.1830037	.1752716	.9422044	2.498670	.6728794
#1	2.256421	.2111073	.7799901	7.847173	.2013757	.0972430
#2	2.247234	.2107927	.7822718	7.926002	.2038467	.0961091
#3	2.260012	.2103401	.7824444	7.996399	.2112431	.0972329

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3230-01 Acquired: 9/30/2025 17:47:18 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.0518593	3.045511	6.819316	2.948048	F 25.95965	-.015399
Stddev	.0002153	.005979	.040138	.001687	.03210	.004417
%RSD	.4151694	.1963261	.5885858	.0572333	.1236684	28.68453
#1	.0521032	3.039506	6.777835	2.948966	25.98145	-.013968
#2	.0516959	3.051464	6.857960	2.946101	25.92278	-.011874
#3	.0517787	3.045564	6.822154	2.949077	25.97471	-.020354

Elem	Sr4077
Units	ppm
Avg	3.354177
Stddev	.010971
%RSD	.3270933
#1	3.347100
#2	3.366815
#3	3.348615

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7187.150	84760.53	5243.268	5610.896	7084.254
Stddev	19.826	188.71	33.962	16.479	9.482
%RSD	.2758471	.2226410	.6477218	.2937001	.1338453
#1	7209.435	84551.15	5226.728	5593.801	7095.130
#2	7180.548	84812.93	5220.744	5626.682	7077.723
#3	7171.468	84917.50	5282.331	5612.205	7079.910

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-01 Acquired: 9/30/2025 17:51:25 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.0826921	-.003711	4.538728	.0054098	-.010059	63.89293	.9902085
Stddev	.0022131	.003988	.001717	.0034449	.000930	.23610	.0056798
%RSD	2.676362	107.4714	.0378353	63.67852	9.247625	.3695238	.5735936
#1	.0851688	.000660	4.537785	.0060903	-.010364	64.01145	.9928754
#2	.0809085	-.004642	4.537689	.0016755	-.010799	64.04630	.9940641
#3	.0819988	-.007150	4.540710	.0084638	-.009015	63.62105	.9836861

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0085988	.0703330	25.64256	.1269136	.0629836	1.012396	222.8531
Stddev	.0000559	.0001643	.11215	.0009842	.0002952	.003366	.8687
%RSD	.6503822	.2336491	.4373498	.7754673	.4687407	.3324450	.3898138
#1	.0085891	.0701724	25.64652	.1278936	.0627219	1.012142	223.8557
#2	.0086590	.0705009	25.75268	.1269218	.0629252	1.009164	222.3790
#3	.0085484	.0703258	25.52849	.1259253	.0633036	1.015881	222.3246

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.937928	14.92091	.1640145	.0008666	1.574949	.2047364	19.62192
Stddev	.023627	.02268	.0008233	.0002614	.008158	.0044626	.52079
%RSD	.5999898	.1520257	.5019939	30.16785	.5179676	2.179655	2.654140
#1	3.948301	14.94639	.1634778	.0005731	1.568805	.2098667	20.19559
#2	3.954594	14.91341	.1636033	.0010744	1.571837	.2017536	19.49132
#3	3.910889	14.90293	.1649625	.0009523	1.584204	.2025889	19.17886

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.500027	.1011699	-.011667	.1771176	2.344559	7.606469	6.503454
Stddev	.064386	.0013634	.000329	.0013360	.013144	.055226	.010521
%RSD	1.170654	1.347598	2.816074	.7543213	.5605960	.7260379	.1617789
#1	5.426188	.0996274	-.011341	.1757597	2.347977	7.599576	6.498008
#2	5.529430	.1022135	-.011998	.1771627	2.355655	7.664818	6.515581
#3	5.544463	.1016689	-.011660	.1784306	2.330044	7.555014	6.496771

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-01 Acquired: 9/30/2025 17:51:25 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**1.409460**	**.0734813**	**-.052491**
Stddev	.005993	.0020149	.000604
%RSD	.4251663	2.742083	1.150482
#1	1.403549	.0715062	-.052936
#2	1.415531	.0755338	-.051803
#3	1.409299	.0734040	-.052732

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8376.645**	**102202.1**	**5826.464**	**6599.630**	**8256.648**
Stddev	23.335	752.9	49.850	83.878	29.708
%RSD	.2785740	.7367227	.8555788	1.270957	.3598013
#1	8353.966	101346.8	5793.747	6507.730	8231.824
#2	8375.383	102494.9	5801.808	6619.095	8248.558
#3	8400.585	102764.7	5883.837	6672.064	8289.563

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-01LX5 Acquired: 9/30/2025 17:59:40 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.0159082**	**.0080586**	**.9460932**	**.0047883**	**-.002192**	**15.21977**	**.2293754**
Stddev	.0006656	.0010893	.0056220	.0014959	.002568	.08335	.0007996
%RSD	4.184188	13.51727	.5942298	31.24137	117.1612	.5476521	.3485924
#1	.0152764	.0089683	.9524635	.0042200	-.000184	15.29475	.2302178
#2	.0166031	.0068515	.9439901	.0036599	-.001306	15.23454	.2292815
#3	.0158451	.0083561	.9418260	.0064852	-.005085	15.13002	.2286270

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0020369**	**.0148436**	**6.055548**	**.0292972**	**.0128346**	**.2378418**	**51.84113**
Stddev	.0000305	.0001994	.053502	.0006337	.0002117	.0018286	.23548
%RSD	1.495886	1.343091	.8835272	2.162922	1.649520	.7688384	.4542424
#1	.0020328	.0150641	6.116958	.0296797	.0129537	.2397413	51.87519
#2	.0020087	.0146760	6.030686	.0296461	.0129599	.2376906	52.05773
#3	.0020692	.0147906	6.019001	.0285658	.0125902	.2360934	51.59047

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9419461**	**3.566994**	**.0339763**	**-.000425**	**.3308387**	**.0472641**	**5.334946**
Stddev	.0069650	.037307	.0005091	.000232	.0142361	.0026919	.017329
%RSD	.7394217	1.045897	1.498499	54.50524	4.303026	5.695524	.3248220
#1	.9484255	3.606974	.0344588	-.000158	.3152262	.0441558	5.354901
#2	.9428323	3.560897	.0334442	-.000544	.3341893	.0488335	5.326260
#3	.9345804	3.533111	.0340258	-.000574	.3431006	.0488030	5.323678

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.470185**	**.0171805**	**-.003433**	**.0543474**	**.5505113**	**1.794983**	**1.372092**
Stddev	.038005	.0014465	.000480	.0003674	.0032421	.022080	.010586
%RSD	2.585064	8.419286	13.98237	.6759790	.5889203	1.230112	.7714959
#1	1.457908	.0180438	-.003508	.0545347	.5542541	1.788345	1.384187
#2	1.439835	.0179870	-.003871	.0545834	.5487070	1.819621	1.367576
#3	1.512811	.0155105	-.002920	.0539241	.5485727	1.776983	1.364513

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-01LX5 Acquired: 9/30/2025 17:59:40 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.3005857**	**.0135294**	**-.011630**
Stddev	.0008460	.0016693	.000210
%RSD	.2814367	12.33861	1.809300
#1	.3013712	.0152177	-.011416
#2	.2996901	.0134909	-.011637
#3	.3006959	.0118797	-.011837

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7737.161**	**94327.35**	**5325.026**	**6091.599**	**8604.138**
Stddev	36.532	252.50	15.991	7.773	36.643
%RSD	.4721655	.2676840	.3002900	.1276052	.4258814
#1	7702.015	94597.95	5306.628	6095.804	8564.138
#2	7734.530	94286.04	5332.876	6082.630	8612.189
#3	7774.937	94098.05	5335.575	6096.364	8636.086

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-01MS Acquired: 9/30/2025 18:03:45 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.7545764**	**1.846887**	**24.40967**	**1.709349**	**.4237255**	**71.60284**
Stddev	.0024175	.040070	.03198	.005349	.0009584	.06557
%RSD	.3203763	2.169601	.1310134	.3129109	.2261785	.0915754
#1	.7559268	1.880549	24.44659	1.714804	.4246341	71.52963
#2	.7560169	1.857547	24.39107	1.704114	.4227241	71.65617
#3	.7517854	1.802565	24.39133	1.709129	.4238184	71.62271

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.410947**	**.1831904**	**.1959948**	**27.32735**	**.5022188**	**.2513631**
Stddev	.006256	.0015618	.0004410	.02613	.0019065	.0006960
%RSD	.4434154	.8525480	.2249902	.0956009	.3796064	.2768908
#1	1.416465	.1848451	.1964206	27.34991	.5037223	.2520962
#2	1.412226	.1817420	.1955401	27.33340	.5028595	.2507113
#3	1.404150	.1829840	.1960235	27.29873	.5000745	.2512819

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.203262**	**190.3657**	**3.488038**	**17.11973**	**.6497361**	**.0686349**
Stddev	.002233	1.6341	.015144	.04487	.0010896	.0013124
%RSD	.1855437	.8584251	.4341787	.2620698	.1676945	1.912095
#1	1.205596	189.0708	3.491794	17.08476	.6506220	.0672970
#2	1.201147	192.2018	3.500951	17.17032	.6500667	.0699202
#3	1.203041	189.8245	3.471369	17.10412	.6485195	.0686874

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.890311**	**.4474765**	**4.059768**	**14.06760**	**.3607775**	**.3584305**
Stddev	.039879	.0093463	.011900	.16832	.0041763	.0007592
%RSD	1.025073	2.088670	.2931098	1.196487	1.157580	.2118243
#1	3.869514	.4465162	4.072629	14.15412	.3600771	.3589022
#2	3.936290	.4572658	4.057525	14.17505	.3652596	.3575546
#3	3.865131	.4386474	4.049149	13.87362	.3569956	.3588345

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-01MS Acquired: 9/30/2025 18:03:45 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.9077445	2.275393	4.042092	F 11.39125	1.252985	.2444412
Stddev	.0044620	.002821	.077128	.03687	.006492	.0044971
%RSD	.4915460	.1239610	1.908123	.3236808	.5181387	1.839757
#1	.9101957	2.276855	3.992157	11.43362	1.259489	.2419160
#2	.9104437	2.277183	4.130923	11.37374	1.252960	.2417743
#3	.9025943	2.272142	4.003195	11.36640	1.246505	.2496334

Elem	Sr4077
Units	ppm
Avg	.1671905
Stddev	.0021852
%RSD	1.307026
#1	.1697066
#2	.1660977
#3	.1657672

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8438.476	97503.71	5687.006	6435.946	8377.207
Stddev	11.496	368.90	52.766	85.380	10.850
%RSD	.1362323	.3783413	.9278337	1.326608	.1295226
#1	8428.288	97289.77	5626.078	6356.753	8364.837
#2	8450.939	97291.69	5717.154	6424.690	8385.115
#3	8436.200	97929.68	5717.786	6526.396	8381.669

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-01DUP Acquired: 9/30/2025 18:11:13 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.0817312	-.003992	4.455767	.0066406	-.010521	63.99487	.9852366
Stddev	.0006059	.001700	.008370	.0030104	.000477	.30603	.0079527
%RSD	.7412912	42.58693	.1878434	45.33351	4.536956	.4782132	.8071902
#1	.0816090	-.002624	4.465041	.0089902	-.010811	63.93535	.9806670
#2	.0811957	-.003457	4.448776	.0032472	-.009970	63.72298	.9806232
#3	.0823888	-.005896	4.453482	.0076843	-.010782	64.32629	.9944196

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0084169	.0711418	25.69722	.1270355	.0622685	1.002535	218.9757
Stddev	.0001173	.0001633	.12648	.0000977	.0005303	.002406	2.2172
%RSD	1.393720	.2296036	.4921781	.0768769	.8515990	.2399515	1.012540
#1	.0083906	.0711723	25.61998	.1271470	.0628556	1.002018	220.7692
#2	.0083151	.0712878	25.62849	.1269649	.0621256	1.005157	216.4967
#3	.0085452	.0709654	25.84318	.1269947	.0618243	1.000430	219.6613

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.947377	14.89124	.1636728	.0008740	1.668047	.2032372	19.86865
Stddev	.026577	.14417	.0007190	.0013746	.012405	.0028585	.05413
%RSD	.6732931	.9681484	.4392734	157.2753	.7437016	1.406473	.2724546
#1	3.929552	14.87746	.1644646	.0020225	1.663275	.2002741	19.92501
#2	3.934654	14.75446	.1630607	-.000649	1.658736	.2034593	19.86388
#3	3.977924	15.04181	.1634932	.001249	1.682129	.2059781	19.81706

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.563024	.0858436	-.011787	.1872768	2.360978	8.268016	6.459427
Stddev	.041962	.0173603	.000435	.0011993	.014505	.052898	.028144
%RSD	.7542991	20.22315	3.686724	.6404120	.6143498	.6397919	.4356995
#1	5.586660	.1056253	-.011333	.1863545	2.350630	8.310344	6.430530
#2	5.514576	.0731432	-.012199	.1886327	2.354747	8.208714	6.486752
#3	5.587837	.0787625	-.011828	.1868434	2.377557	8.284990	6.460999

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-01DUP Acquired: 9/30/2025 18:11:13 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**1.478789**	**.0732701**	**-.048418**
Stddev	.010691	.0020935	.002211
%RSD	.7229530	2.857163	4.566734
#1	1.469433	.0756800	-.050870
#2	1.490442	.0719012	-.046574
#3	1.476493	.0722292	-.047812

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8467.737**	**102674.0**	**5803.845**	**6619.679**	**8362.519**
Stddev	12.098	200.8	69.594	7.690	11.970
%RSD	.1428703	.1955439	1.199107	.1161614	.1431355
#1	8459.520	102905.8	5883.050	6616.685	8348.804
#2	8462.062	102559.2	5752.486	6613.937	8367.890
#3	8481.629	102557.0	5775.997	6628.415	8370.862

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-01MSD Acquired: 9/30/2025 18:15:28 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.7461151**	**1.795237**	**3.666941**	**1.695677**	**.4240842**	**61.50052**
Stddev	.0055661	.019830	.002918	.004152	.0007467	.12080
%RSD	.7460125	1.104595	.0795621	.2448873	.1760725	.1964240
#1	.7511915	1.788446	3.670056	1.698949	.4232754	61.63822
#2	.7401631	1.779694	3.664272	1.691006	.4247473	61.45097
#3	.7469907	1.817570	3.666496	1.697076	.4242301	61.41237

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8417313**	**.1763356**	**.1942121**	**21.50822**	**.4800411**	**.2446065**
Stddev	.0034904	.0017928	.0003395	.02284	.0025537	.0001426
%RSD	.4146715	1.016672	.1748139	.1061837	.5319710	.0582923
#1	.8457134	.1746127	.1942925	21.52961	.4779475	.2444793
#2	.8392019	.1762031	.1938396	21.51090	.4828862	.2447606
#3	.8402784	.1781909	.1945042	21.48417	.4792896	.2445796

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9886931**	**212.5369**	**3.158453**	**16.03924**	**.6119683**	**.0652465**
Stddev	.0020240	2.4045	.008971	.03412	.0011941	.0010714
%RSD	.2047131	1.131313	.2840360	.2127457	.1951301	1.642113
#1	.9886740	214.7566	3.168644	16.04903	.6133468	.0659099
#2	.9866787	212.8714	3.151749	16.00129	.6112492	.0658191
#3	.9907266	209.9828	3.154966	16.06740	.6113091	.0640104

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.684663**	**.4218160**	**2.783374**	**13.29350**	**.3404784**	**.3497988**
Stddev	.098757	.0024705	.017376	.09060	.0091327	.0004592
%RSD	2.680225	.5856729	.6242895	.6815029	2.682300	.1312729
#1	3.798378	.4241127	2.772242	13.36388	.3487736	.3500443
#2	3.635198	.4221330	2.803397	13.32533	.3419696	.3492690
#3	3.620413	.4192024	2.774484	13.19128	.3306919	.3500830

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-01MSD Acquired: 9/30/2025 18:15:28 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.8214134	2.256933	3.813280	F 11.43220	.9433753	.2302597
Stddev	.0017164	.009905	.004814	.02725	.0089470	.0019435
%RSD	.2089527	.4388687	.1262306	.2383872	.9483975	.8440548
#1	.8233926	2.268291	3.814448	11.46060	.9380786	.2324153
#2	.8203345	2.250089	3.817403	11.40626	.9383420	.2297222
#3	.8205131	2.252420	3.807990	11.42974	.9537052	.2286415

Elem	Sr4077
Units	ppm
Avg	.0771412
Stddev	.0013236
%RSD	1.715866
#1	.0767655
#2	.0760460
#3	.0786120

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8425.771	100915.8	5817.870	6542.649	8238.891
Stddev	8.509	224.4	47.880	33.263	10.164
%RSD	.1009850	.2223187	.8229826	.5084004	.1233602
#1	8421.965	100685.8	5850.163	6547.428	8232.525
#2	8419.829	100927.7	5840.587	6507.255	8233.537
#3	8435.518	101134.0	5762.860	6573.264	8250.613

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-01A Acquired: 9/30/2025 18:19:23 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.7787572	1.846939	6.631917	1.748448	.6783043	63.60111
Stddev	.0029469	.120104	.007556	.007690	.0023135	.14510
%RSD	.3784077	6.502868	.1139412	.4398050	.3410674	.2281478
#1	.7757787	1.764735	6.623242	1.741524	.6792246	63.76857
#2	.7788217	1.791310	6.637064	1.747097	.6800160	63.52218
#3	.7816713	1.984772	6.635446	1.756724	.6756723	63.51257

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.278142	.1828196	.2167841	28.39189	.4746475	.2675309
Stddev	.003157	.0014293	.0002928	.00659	.0011317	.0007353
%RSD	.2469775	.7818003	.1350673	.0231971	.2384312	.2748577
#1	1.281146	.1834991	.2164481	28.39821	.4758116	.2666860
#2	1.274852	.1837824	.2169192	28.38507	.4745795	.2680261
#3	1.278427	.1811774	.2169849	28.39239	.4735513	.2678807

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.498518	312.2978	4.133642	17.11830	.6529565	.0694401
Stddev	.001845	1.4713	.012835	.04870	.0009751	.0004221
%RSD	.1231212	.4711352	.3104888	.2845090	.1493415	.6079111
#1	1.498465	312.4107	4.139477	17.17283	.6518796	.0692809
#2	1.500388	310.7732	4.142522	17.10292	.6532102	.0691208
#3	1.496700	313.7094	4.118926	17.07914	.6537798	.0699187

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.212149	.4606996	10.56192	14.12419	.4400021	.3578888
Stddev	.067309	.0034533	.10380	.11775	.0119794	.0003497
%RSD	1.597973	.7495854	.9827759	.8336735	2.722584	.0977217
#1	4.258977	.4622904	10.52417	14.25980	.4355716	.3576657
#2	4.135015	.4630707	10.48227	14.06492	.4308690	.3577089
#3	4.242456	.4567375	10.67931	14.04785	.4535657	.3582919

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-01A Acquired: 9/30/2025 18:19:23 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.8385763	2.390959	5.640064	F 11.91930	2.690571	.2562335
Stddev	.0026312	.010948	.028303	.10019	.036979	.0024274
%RSD	.3137712	.4579034	.5018169	.8405818	1.374398	.9473438
#1	.8357797	2.398180	5.608810	11.82671	2.659034	.2580435
#2	.8389464	2.378362	5.663964	11.90553	2.681410	.2571819
#3	.8410029	2.396336	5.647417	12.02567	2.731270	.2534751

Elem	Sr4077
Units	ppm
Avg	.0335428
Stddev	.0007645
%RSD	2.279067
#1	.0343907
#2	.0333317
#3	.0329061

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8475.357	100329.9	5797.025	6538.492	8349.747
Stddev	18.216	314.6	44.243	24.156	9.307
%RSD	.2149318	.3135240	.7632078	.3694373	.1114602
#1	8454.355	99980.0	5768.152	6516.247	8339.298
#2	8484.842	100420.6	5774.962	6564.188	8357.147
#3	8486.873	100589.2	5847.962	6535.041	8352.795

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-05 Acquired: 9/30/2025 18:23:26 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.0697655**	**-.004321**	**2.820153**	**.0067928**	**-.013955**	**58.72323**	**.6208590**
Stddev	.0021390	.002587	.002096	.0025507	.002283	.16994	.0018730
%RSD	3.065951	59.86914	.0743158	37.54979	16.35915	.2893928	.3016723
#1	.0674775	-.003557	2.822507	.0043140	-.014551	58.81924	.6215539
#2	.0717151	-.007205	2.818490	.0066546	-.015881	58.82343	.6222851
#3	.0701041	-.002203	2.819461	.0094098	-.011433	58.52701	.6187379

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0086392**	**.0063575**	**24.29787**	**.1056201**	**.0544097**	**.7797772**	**221.1185**
Stddev	.0000517	.0001973	.02475	.0007754	.0001361	.0002635	.3845
%RSD	.5985287	3.102692	.1018424	.7341476	.2500522	.0337879	.1738715
#1	.0086419	.0062254	24.27749	.1048655	.0544137	.7800226	220.7395
#2	.0085861	.0065842	24.29073	.1055800	.0542716	.7798103	221.1078
#3	.0086894	.0062628	24.32541	.1064147	.0545436	.7794988	221.5082

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.583869**	**13.35403**	**.1203928**	**-.001029**	**1.215466**	**.1816155**	**3.075598**
Stddev	.007456	.06388	.0003094	.000404	.051921	.0019522	.002902
%RSD	.2885487	.4783818	.2570138	39.23518	4.271711	1.074888	.0943570
#1	2.575631	13.42697	.1201225	-.001408	1.170663	.1831933	3.072254
#2	2.585820	13.30804	.1207303	-.000605	1.203366	.1822209	3.077085
#3	2.590155	13.32707	.1203256	-.001072	1.272369	.1794324	3.077456

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.986441**	**.0917802**	**-.000190**	**.0841857**	**2.136753**	**3.053478**	**6.284113**
Stddev	.045883	.0059735	.000657	.0010435	.007363	.019177	.019812
%RSD	.9201565	6.508525	345.7485	1.239538	.3445653	.6280386	.3152645
#1	5.025896	.0986286	.000211	.0847819	2.130717	3.031740	6.305781
#2	4.936091	.0876432	.000167	.0847945	2.144955	3.068003	6.266924
#3	4.997336	.0890689	-.000948	.0829808	2.134585	3.060691	6.279636

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-05 Acquired: 9/30/2025 18:23:26 Type: Unk
Method: 6010-200.7 NEW(v228) 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	1.016009	.0654782	-.084272
Stddev	.003425	.0046632	.000178
%RSD	.3370905	7.121752	.2109527
#1	1.019785	.0624007	-.084477
#2	1.015137	.0708435	-.084163
#3	1.013104	.0631905	-.084176

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8495.848	102765.7	5826.272	6625.809	8384.918
Stddev	10.265	310.0	17.214	5.636	12.739
%RSD	.1208267	.3016682	.2954626	.0850588	.1519235
#1	8486.714	103084.5	5845.093	6632.314	8370.308
#2	8493.873	102747.5	5811.324	6622.707	8390.740
#3	8506.958	102465.2	5822.400	6622.406	8393.705

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-09 Acquired: 9/30/2025 18:27:28 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.0943244**	**-.002770**	**24.61923**	**-.002897**	**.0235960**	**145.0759**
Stddev	.0014836	.002971	.00094	.005084	.0042114	.4420
%RSD	1.572897	107.2583	.0038009	175.4832	17.84810	.3046675
#1	.0931101	-.001739	24.61954	-.001251	.0282575	144.7437
#2	.0959781	-.000452	24.61817	.001160	.0224649	145.5775
#3	.0938849	-.006119	24.61996	-.008599	.0200656	144.9064

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.412917**	**.0121139**	**.0203711**	**872.6142**	**4.455533**	**.1302450**
Stddev	.021614	.0000445	.0001997	17.4868	.023921	.0002174
%RSD	.6332899	.3669409	.9800460	2.003959	.5368824	.1669198
#1	3.395358	.0120857	.0205531	852.6607	4.434102	.1299997
#2	3.437056	.0120910	.0201576	885.2712	4.451157	.1304140
#3	3.406336	.0121652	.0204026	879.9105	4.481340	.1303212

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8381958**	**335.8084**	**4.884220**	**150.1751**	**.3937468**	**.0006351**
Stddev	.0008298	.8425	.027777	.6818	.0008980	.0004022
%RSD	.0989967	.2508791	.5687085	.4539907	.2280518	63.32515
#1	.8380063	334.8429	4.876737	150.4050	.3937972	.0008948
#2	.8374771	336.1884	4.914972	150.7123	.3946185	.0008387
#3	.8391039	336.3940	4.860952	149.4081	.3928248	.0001718

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**28.92140**	**.4010115**	**6.654672**	**16.89336**	**.3319559**	**-.001684**
Stddev	.10480	.0040711	.004385	.13989	.0018850	.000492
%RSD	.3623465	1.015204	.0659003	.8280753	.5678326	29.19657
#1	28.80040	.3974399	6.659735	16.77521	.3307420	-.002249
#2	28.98130	.4054443	6.652075	16.85703	.3309983	-.001443
#3	28.98250	.4001503	6.652206	17.04783	.3341274	-.001358

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-09 Acquired: 9/30/2025 18:27:28 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.0408859	7.256906	5.207235	6.914128	F 13.42441	.0414062
Stddev	.0011703	.024492	.033893	.031282	.07472	.0075846
%RSD	2.862317	.3375038	.6508871	.4524422	.5565809	18.31761
#1	.0420940	7.238503	5.230802	6.897316	13.40006	.0493978
#2	.0397575	7.284705	5.168392	6.894846	13.36490	.0405132
#3	.0408063	7.247509	5.222511	6.950222	13.50826	.0343076

Elem	Sr4077
Units	ppm
Avg	3.355862
Stddev	.034759
%RSD	1.035782
#1	3.321543
#2	3.391046
#3	3.354997

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7919.798	94863.37	5808.011	6190.864	7015.606
Stddev	4.667	368.01	45.221	32.194	5.449
%RSD	.0589305	.3879421	.7785949	.5200314	.0776749
#1	7920.735	95237.93	5819.560	6226.264	7009.383
#2	7914.733	94502.27	5758.135	6163.334	7019.524
#3	7923.925	94849.92	5846.337	6182.996	7017.912

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-13 Acquired: 9/30/2025 18:31:45 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.0401580**	**.0063599**	**.5286139**	**.0061903**	**-.017340**	**108.2809**	**.3517267**
Stddev	.0021176	.0007459	.0016921	.0027223	.001393	.0235	.0013582
%RSD	5.273045	11.72879	.3200936	43.97658	8.033644	.0217221	.3861390
#1	.0394761	.0066039	.5304099	.0083039	-.018501	108.2927	.3501742
#2	.0425325	.0055226	.5270497	.0071485	-.017722	108.2961	.3523112
#3	.0384654	.0069533	.5283822	.0031185	-.015795	108.2538	.3526948

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0074557**	**-.001792**	**15.08167**	**.1268544**	**.0894057**	**.4532757**	**190.4513**
Stddev	.0001249	.000092	.03087	.0002871	.0001941	.0015594	1.1852
%RSD	1.675016	5.108699	.2047052	.2262906	.2171031	.3440272	.6222976
#1	.0075480	-.001732	15.11665	.1266673	.0892082	.4550568	189.0828
#2	.0073136	-.001898	15.05824	.1267109	.0895962	.4521559	191.1411
#3	.0075056	-.001747	15.07011	.1271849	.0894128	.4526143	191.1301

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.653518**	**17.79235**	**.1293859**	**-.000317**	**17.34577**	**.2420163**	**.5441782**
Stddev	.008381	.02894	.0008429	.000403	.06149	.0006667	.0014421
%RSD	.1801017	.1626325	.6514616	127.1123	.3545208	.2754958	.2650024
#1	4.663177	17.79396	.1299210	-.000736	17.28223	.2412845	.5426773
#2	4.648167	17.76264	.1284142	-.000282	17.35011	.2421752	.5443040
#3	4.649211	17.82045	.1298224	.000067	17.40499	.2425893	.5455532

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.756318**	**.0902157**	**.0018743**	**.0376323**	**2.358049**	**3.408210**	**4.231796**
Stddev	.084209	.0082187	.0002916	.0004642	.007580	.018826	.025243
%RSD	1.246374	9.110044	15.55992	1.233603	.3214485	.5523600	.5965011
#1	6.660578	.0812187	.0021872	.0381633	2.366774	3.390884	4.210375
#2	6.818902	.0973289	.0016101	.0374307	2.354287	3.405503	4.225387
#3	6.789474	.0920995	.0018255	.0373030	2.353086	3.428242	4.259625

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-13 Acquired: 9/30/2025 18:31:45 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.5613740	.0724196	-.112710
Stddev	.0066214	.0031139	.001166
%RSD	1.179504	4.299846	1.034870
#1	.5578142	.0755873	-.111369
#2	.5572940	.0723092	-.113270
#3	.5690139	.0693624	-.113490

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8223.567	98869.91	5633.973	6397.900	8237.124
Stddev	3.647	170.39	40.811	16.722	13.677
%RSD	.0443449	.1723387	.7243745	.2613701	.1660386
#1	8226.606	98945.06	5587.453	6381.106	8252.031
#2	8219.523	98674.86	5650.716	6398.045	8234.185
#3	8224.572	98989.81	5663.749	6414.549	8225.155

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCV05 Acquired: 9/30/2025 18:55:07 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**4.916706**	**5.238023**	**4.836755**	**4.953787**	**4.890738**	**9.525533**	**9.779707**
Stddev	.008031	.086859	.003345	.002889	.006358	.083709	.071064
%RSD	.1633486	1.658242	.0691626	.0583269	.1300014	.8787903	.7266486
#1	4.915223	5.197730	4.836001	4.955729	4.891201	9.569869	9.849363
#2	4.925375	5.178627	4.833850	4.950466	4.896852	9.428981	9.707314
#3	4.909519	5.337711	4.840412	4.955165	4.884162	9.577749	9.782445

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2461581**	**2.426780**	**24.24287**	**.9778682**	**2.424024**	**1.214087**	**4.836148**
Stddev	.0025626	.001379	.14297	.0016169	.001272	.001382	.025616
%RSD	1.041025	.0568318	.5897427	.1653480	.0524922	.1138365	.5296859
#1	.2472768	2.426349	24.31255	.9760020	2.423431	1.215205	4.810974
#2	.2432264	2.425668	24.07842	.9788486	2.423156	1.214513	4.862185
#3	.2479712	2.428323	24.33764	.9787541	2.425485	1.212542	4.835285

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.440442**	**23.97534**	**2.425104**	**1.221695**	**23.02334**	**2.422172**	**2.419472**
Stddev	.009447	.14141	.000284	.002045	.07634	.015549	.003696
%RSD	.3871190	.5898034	.0117025	.1673838	.3315892	.6419297	.1527747
#1	2.449892	24.10246	2.424919	1.219416	23.03455	2.432316	2.420583
#2	2.430998	23.82303	2.424962	1.222300	23.09346	2.404271	2.415347
#3	2.440436	24.00051	2.425431	1.223370	22.94201	2.429930	2.422485

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**23.72471**	**4.943023**	**4.890284**	**4.845440**	**4.847816**	**4.696163**	**4.860433**
Stddev	.12003	.055784	.005848	.005203	.022802	.039645	.008886
%RSD	.5059447	1.128536	.1195810	.1073868	.4703535	.8442039	.1828263
#1	23.62229	4.973835	4.895819	4.848727	4.869841	4.666338	4.862441
#2	23.85679	4.878629	4.884167	4.839441	4.824309	4.741152	4.850714
#3	23.69505	4.976605	4.890865	4.848152	4.849297	4.680998	4.868143

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCV05 Acquired: 9/30/2025 18:55:07 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**4.963256**	**4.609173**	**4.804501**
Stddev	.014934	.026798	.098591
%RSD	.3008909	.5813995	2.052064
#1	4.964033	4.638135	4.917334
#2	4.947949	4.585257	4.734974
#3	4.977787	4.604127	4.761196

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7481.873**	**88574.87**	**5040.149**	**5784.802**	**8215.697**
Stddev	8.854	220.66	48.541	21.077	11.747
%RSD	.1183368	.2491193	.9630836	.3643581	.1429795
#1	7472.410	88519.52	4997.690	5780.999	8206.700
#2	7489.955	88387.15	5093.067	5765.885	8228.986
#3	7483.255	88817.93	5029.691	5807.521	8211.405

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCB05 Acquired: 9/30/2025 18:59:18 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001045**	**-.001454**	**.0008171**	**.0047871**	**.0018077**	**.0076638**
Stddev	.001455	.001147	.0011827	.0007202	.0019278	.0160013
%RSD	139.2263	78.85106	144.7571	15.04560	106.6458	208.7906
#1	.000626	-.000196	-.000500	.0041448	.0001537	-.005364
#2	-.001727	-.002440	.001788	.0055658	.0013444	.025524
#3	-.002034	-.001727	.001164	.0046507	.0039249	.002831

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000655**	**-.000230**	**-.000039**	**-.014836**	**-.000447**	**-.000808**
Stddev	.002036	.000066	.000048	.038185	.000358	.000491
%RSD	310.7104	28.48781	123.6091	257.3805	80.09362	60.70356
#1	-.002340	-.000295	-.000035	.022642	-.000124	-.000537
#2	-.001233	-.000164	-.000089	-.013459	-.000384	-.000513
#3	.001607	-.000232	.000007	-.053691	-.000833	-.001374

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000222**	**-.009058**	**.0008639**	**-.003286**	**.0002491**	**-.001065**
Stddev	.000570	.006708	.0007929	.047649	.0002923	.001006
%RSD	256.6115	74.04919	91.79012	1450.248	117.3558	94.44640
#1	-.000489	-.016454	.0017592	-.046383	.0002977	-.001602
#2	-.000610	-.007354	.0002501	.047883	.0005140	-.001688
#3	.000432	-.003367	.0005823	-.011357	-.000064	.000095

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.273804**	**.0068122**	**.0002941**	**-.603930**	**-.001194**	**.0004324**
Stddev	.041345	.0032853	.0001048	.094227	.000792	.0002029
%RSD	15.10013	48.22656	35.63413	15.60234	66.33205	46.92053
#1	-.268749	.0071974	.0003072	-.673234	-.001677	.0006255
#2	-.317443	.0033513	.0001834	-.496639	-.000280	.0004508
#3	-.235219	.0098880	.0003917	-.641917	-.001624	.0002210

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCB05 Acquired: 9/30/2025 18:59:18 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.005566**	**-.001764**	**.0246077**	**.0010342**	**.0040818**	F **-.018876**
Stddev	.000849	.003712	.0056060	.0010084	.0025579	.006040
%RSD	15.24710	210.4217	22.78159	97.50270	62.66738	31.99913
#1	-.005974	-.000411	.0253086	.0016969	.0013658	-.018021
#2	-.006133	-.005963	.0298302	-.000126	.0044346	-.025298
#3	-.004590	.001082	.0186841	.001532	.0064450	-.013309

Elem	Sr4077
Units	ppm
Avg	**-.000202**
Stddev	.000258
%RSD	127.6953
#1	.000078
#2	-.000430
#3	-.000254

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7629.833**	**90458.07**	**5091.232**	**5945.962**	**8867.885**
Stddev	11.986	329.89	51.413	37.970	12.098
%RSD	.1570980	.3646925	1.009840	.6385914	.1364291
#1	7616.025	90146.03	5133.792	5924.276	8858.211
#2	7637.567	90803.31	5105.797	5989.805	8863.992
#3	7635.906	90424.87	5034.108	5923.804	8881.450

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3232-01 Acquired: 9/30/2025 19:03:29 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.0784288	-.016636	19.23783	-.001818	.0196812	150.6068
Stddev	.0014237	.002825	.02961	.001380	.0040995	.4119
%RSD	1.815273	16.98153	.1539393	75.90317	20.82928	.2734679
#1	.0800108	-.015453	19.22025	-.001712	.0212646	150.1698
#2	.0772507	-.019860	19.22122	-.000494	.0227528	150.9878
#3	.0780248	-.014594	19.27202	-.003247	.0150262	150.6629

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.959595	.0121322	.0087675	801.2174	3.990443	.0994363
Stddev	.008503	.0001157	.0001358	11.4135	.006772	.0006851
%RSD	.4338985	.9536371	1.548759	1.424519	.1697167	.6890021
#1	1.950384	.0120026	.0086578	794.8788	3.990301	.1002274
#2	1.961255	.0122252	.0089193	814.3934	3.983743	.0990345
#3	1.967144	.0121687	.0087254	794.3800	3.997285	.0990469

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7196542	314.2839	4.241743	56.57622	.2155753	.0011068
Stddev	.0007159	.7255	.024051	.15304	.0000852	.0001566
%RSD	.0994743	.2308496	.5670028	.2705035	.0395089	14.14782
#1	.7190155	314.1011	4.214460	56.40809	.2156404	.0011717
#2	.7195191	313.6673	4.250893	56.61316	.2156067	.0012206
#3	.7204280	315.0833	4.259876	56.70740	.2154789	.0009282

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	30.50319	.3071346	4.073878	9.635000	.3102063	.0004135
Stddev	.19814	.0045509	.010852	.102170	.0027404	.0004263
%RSD	.6495703	1.481738	.2663869	1.060401	.8834254	103.0936
#1	30.28713	.3018854	4.080621	9.632007	.3118568	.0002321
#2	30.54606	.3095452	4.061360	9.534359	.3070429	.0009005
#3	30.67639	.3099731	4.079654	9.738633	.3117191	.0001079

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3232-01 Acquired: 9/30/2025 19:03:29 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.0885221	6.438871	3.521367	5.906191	F 10.03732	.0102138
Stddev	.0009646	.019115	.007379	.013742	.06290	.0020304
%RSD	1.089718	.2968672	.2095589	.2326672	.6266258	19.87919
#1	.0894341	6.417079	3.523007	5.911320	10.06761	.0125485
#2	.0875123	6.446734	3.527788	5.890622	9.96501	.0092324
#3	.0886197	6.452801	3.513305	5.916630	10.07934	.0088605

Elem	Sr4077
Units	ppm
Avg	4.129106
Stddev	.071698
%RSD	1.736399
#1	4.049113
#2	4.187580
#3	4.150624

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8029.469	95453.41	5933.772	6284.298	7180.258
Stddev	12.148	327.90	38.410	26.885	15.743
%RSD	.1512905	.3435227	.6473051	.4278132	.2192476
#1	8034.115	95660.41	5968.460	6302.704	7182.173
#2	8038.608	95075.35	5892.493	6253.445	7194.956
#3	8015.684	95624.47	5940.362	6296.746	7163.646

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3233-01RE Acquired: 9/30/2025 19:07:46 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.9697808**	**-.742279**	**62.09225**	**-.336552**	**-.409744**	**215.5324**
Stddev	.0041193	.019853	.58838	.004691	.001007	.7982
%RSD	.4247643	2.674564	.9475912	1.393948	.2457810	.3703297
#1	.9687552	-.765157	61.85852	-.337886	-.410891	214.6134
#2	.9743160	-.732089	62.76158	-.331339	-.409333	215.9307
#3	.9662712	-.729590	61.65665	-.340432	-.409007	216.0530

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.844971**	**.1215407**	**.4396733**	F **2576.798**	**11.72980**	**4.241077**
Stddev	.013256	.0009117	.0112334	33.177	.06307	.035917
%RSD	.3447586	.7501218	2.554944	1.287517	.5376727	.8468918
#1	3.829924	.1206492	.4301547	2572.247	11.80126	4.229742
#2	3.850060	.1224713	.4520638	2612.015	11.68193	4.281294
#3	3.854928	.1215016	.4368013	2546.131	11.70621	4.212194

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**21.25729**	F **5335.129**	**45.81393**	**105.2112**	**15.80286**	^ *****
Stddev	.09524	64.057	.24138	.4053	.15247	-----
%RSD	.4480355	1.200671	.5268636	.3851992	.9648104	-----
#1	21.24296	5405.354	45.54789	104.8903	15.74667	^ -----
#2	21.35888	5320.132	46.01893	105.6666	15.97545	^ -----
#3	21.17002	5279.900	45.87498	105.0767	15.68647	^ -----

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**72.27827**	**1.242272**	F **60.01080**	**97.99060**	^ *****	**.4708810**
Stddev	.80761	.004266	.70090	.50762	-----	.0005622
%RSD	1.117369	.3434314	1.167951	.5180285	-----	.1193922
#1	73.18645	1.241511	60.06554	98.45751	^ -----	.4709947
#2	71.64076	1.238438	59.28414	97.45026	^ -----	.4713776
#3	72.00759	1.246868	60.68273	98.06401	^ -----	.4702706

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3233-01RE Acquired: 9/30/2025 19:07:46 Type: Unk
Method: 6010-200.7 NEW(v228) 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	1.914365	F 11.01313	9.309300	F 54.70657	F 333.2952	.4771225
Stddev	.012383	.04369	.074683	.27910	1.2351	.0140293
%RSD	.6468294	.3967536	.8022380	.5101815	.3705782	2.940400
#1	1.910164	10.96691	9.383994	54.70251	332.8770	.4625506
#2	1.928301	11.05377	9.234628	54.98769	334.6851	.4782792
#3	1.904629	11.01871	9.309279	54.42952	332.3235	.4905376

Elem	Sr4077
Units	ppm
Avg	F 13.02801
Stddev	.22943
%RSD	1.761031
#1	12.76634
#2	13.19466
#3	13.12304

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5954.068	75437.65	4886.971	4653.805	3402.785
Stddev	33.285	605.53	59.259	8.152	33.175
%RSD	.5590261	.8026911	1.212590	.1751698	.9749316
#1	5937.605	74924.93	4920.529	4663.160	3408.346
#2	5932.224	75282.31	4818.548	4648.219	3367.181
#3	5992.377	76105.72	4921.834	4650.037	3432.828

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3187-04 Acquired: 9/30/2025 19:12:33 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.0012660	-.001201	.0183592	.0076534	.0028657	.1442063	.5938016
Stddev	.0025266	.002884	.0007272	.0017097	.0014389	.0180194	.0031765
%RSD	199.5784	240.2368	3.960931	22.33988	50.20924	12.49557	.5349412
#1	.0004882	-.001931	.0175195	.0081868	.0016438	.1412476	.5971945
#2	-.000780	.001979	.0187715	.0057405	.0044516	.1635219	.5933120
#3	.004090	-.003650	.0187865	.0090328	.0025018	.1278494	.5908984

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000268	.0008830	27.75376	.0027840	.0014150	.0055562	.2368456
Stddev	.000027	.0001544	.11789	.0003554	.0001764	.0002611	.0012491
%RSD	10.14241	17.48710	.4247576	12.76703	12.46443	4.698544	.5274006
#1	-.000297	.0009939	27.88629	.0023779	.0015410	.0058353	.2356037
#2	-.000243	.0007066	27.66058	.0029354	.0012134	.0055151	.2368314
#3	-.000264	.0009486	27.71441	.0030387	.0014906	.0053181	.2381018

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5788471	8.700527	.0061406	-.001196	300.9400	-.003782	.1005653
Stddev	.0034236	.104436	.0003119	.000907	2.4860	.000872	.0008521
%RSD	.5914585	1.200336	5.078916	75.80244	.8260764	23.05060	.8473341
#1	.5790581	8.717200	.0063976	-.002082	301.9716	-.003558	.1015246
#2	.5753229	8.588759	.0057936	-.000270	298.1042	-.004744	.0998962
#3	.5821604	8.795624	.0062306	-.001236	302.7440	-.003044	.1002751

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.113905	.0339817	.0009277	-.002702	-.000667	1.969818	.1225399
Stddev	.089011	.0012632	.0003788	.001577	.005203	.010300	.0013918
%RSD	.9766494	3.717340	40.83639	58.35740	779.6407	.5229085	1.135812
#1	9.165297	.0350386	.0010576	-.000881	-.006647	1.980753	.1241460
#2	9.011124	.0325827	.0005010	-.003598	.002827	1.968405	.1217889
#3	9.165293	.0343237	.0012244	-.003628	.001818	1.960298	.1216850

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3187-04 Acquired: 9/30/2025 19:12:33 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.6405989	-.027691	.1065904
Stddev	.0043578	.003556	.0004656
%RSD	.6802689	12.84072	.4367932
#1	.6431290	-.024210	.1070796
#2	.6431008	-.031317	.1061527
#3	.6355670	-.027548	.1065388

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7422.686	87842.92	5089.680	5773.010	7935.408
Stddev	5.912	331.25	6.878	13.381	6.155
%RSD	.0796457	.3770943	.1351312	.2317892	.0775622
#1	7415.869	87558.50	5083.728	5767.852	7929.766
#2	7426.406	88206.62	5088.104	5788.203	7934.486
#3	7425.782	87763.65	5097.209	5762.976	7941.972

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3230-03 Acquired: 9/30/2025 19:16:39 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.001008**	**-.001381**	**.0013811**	**.0059081**	**.0024287**	**.0409036**	**.0558151**
Stddev	.001344	.002125	.0008621	.0032782	.0015256	.0189524	.0040658
%RSD	133.3788	153.8973	62.42120	55.48623	62.81645	46.33426	7.284399
#1	-.002505	-.003130	.0013219	.0024608	.0006672	.0627872	.0588529
#2	-.000617	.000984	.0005502	.0089858	.0033279	.0301210	.0511962
#3	.000097	-.001996	.0022714	.0062776	.0032909	.0298027	.0573961

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000194**	**.0000380**	**150.7820**	**.0033073**	**-.000047**	**.0009459**	**.0303095**
Stddev	.000033	.0000862	.0326	.0001175	.000110	.0004500	.0113032
%RSD	17.12454	226.6305	.0216325	3.551827	232.2501	47.56760	37.29256
#1	-.000158	.0000693	150.8100	.0031913	-.000174	.0014607	.0433394
#2	-.000200	-.000059	150.7462	.0033045	.000027	.0006278	.0231395
#3	-.000223	.000104	150.7898	.0034261	.000005	.0007493	.0244496

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009342**	**8.487315**	**.0028067**	**-.000763**	**309.3897**	**-.000799**	**.0052774**
Stddev	.0004427	.029827	.0004539	.000537	4.2275	.002921	.0002389
%RSD	47.38968	.3514342	16.17152	70.31433	1.366394	365.7964	4.526622
#1	.0012432	8.481161	.0023431	-.000184	312.8094	.002490	.0054282
#2	.0004270	8.461045	.0028267	-.001244	310.6967	-.003093	.0050019
#3	.0011323	8.519740	.0032502	-.000863	304.6631	-.001794	.0054020

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.011762**	**.0160255**	**.0032380**	**-.006566**	**-.001404**	**2.321867**	**.0088945**
Stddev	.037623	.0010986	.0002992	.001092	.002851	.035993	.0006522
%RSD	1.249198	6.855063	9.239451	16.63370	203.0055	1.550175	7.332327
#1	2.996558	.0163749	.0030703	-.005645	-.004040	2.346942	.0084160
#2	2.984120	.0147947	.0030603	-.007773	.001621	2.338032	.0096374
#3	3.054607	.0169068	.0035834	-.006281	-.001794	2.280625	.0086303

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3230-03 Acquired: 9/30/2025 19:16:39 Type: Unk
Method: 6010-200.7 NEW(v228) 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	7.326592	-.030932	.7947510
Stddev	.045903	.001676	.0045734
%RSD	.6265297	5.418287	.5754543
#1	7.325770	-.031710	.8000187
#2	7.281104	-.032078	.7924416
#3	7.372900	-.029009	.7917928

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7377.872	88678.00	5150.014	5791.110	7817.323
Stddev	48.729	436.13	21.467	33.619	49.839
%RSD	.6604714	.4918117	.4168267	.5805327	.6375413
#1	7434.139	88719.13	5165.275	5791.997	7874.035
#2	7349.462	88222.77	5159.300	5757.056	7797.432
#3	7350.017	89092.11	5125.468	5824.277	7780.501

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-04 Acquired: 9/30/2025 19:20:48 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.002921**	**.0001797**	**2.431526**	**.0083339**	**.0029739**	**.0764227**	**.2245758**
Stddev	.003059	.0009154	.004230	.0033896	.0036878	.0182037	.0035257
%RSD	104.7267	509.4406	.1739551	40.67187	124.0046	23.81979	1.569914
#1	-.004486	.0011830	2.433117	.0089227	.0072186	.0585800	.2279415
#2	-.004881	-.000610	2.426731	.0113905	.0005565	.0949672	.2248766
#3	.000604	-.000034	2.434730	.0046885	.0011467	.0757209	.2209095

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000154**	**.0028876**	**10.96431**	**.0005617**	**.0011883**	**.0464776**	**.0143753**
Stddev	.000044	.0000055	.04294	.0003505	.0001780	.0005213	.0056241
%RSD	28.45228	.1904739	.3916105	62.40536	14.98348	1.121574	39.12300
#1	-.000152	.0028897	10.95735	.0003446	.0011384	.0469947	.0167107
#2	-.000199	.0028813	11.01031	.0009660	.0010405	.0464859	.0184555
#3	-.000111	.0028917	10.92529	.0003744	.0013859	.0459522	.0079598

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1500381**	**.7208823**	**.0031989**	**-.001157**	**275.5813**	**.0025690**	**.8418842**
Stddev	.0008703	.0381796	.0004291	.000739	3.7565	.0067656	.0017700
%RSD	.5800422	5.296235	13.41447	63.88814	1.363123	263.3571	.2102454
#1	.1497572	.7540597	.0032192	-.001857	279.0852	-.004451	.8411724
#2	.1493429	.7294358	.0036176	-.000384	271.6150	.003111	.8405809
#3	.1510141	.6791514	.0027600	-.001231	276.0438	.009047	.8438993

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3052327**	**.0008700**	**.0000163**	**-.006147**	**-.001498**	**.5866253**	**.0233108**
Stddev	.1006803	.0008211	.0000865	.000359	.002324	.0126710	.0012917
%RSD	32.98476	94.38251	529.8344	5.835506	155.1063	2.159973	5.541448
#1	.2122125	-.000050	.0000805	-.005743	-.000505	.5919222	.0243751
#2	.4121328	.001131	.0000504	-.006271	.000164	.5721654	.0236837
#3	.2913529	.001529	-.000082	-.006427	-.004154	.5957882	.0218736

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-04 Acquired: 9/30/2025 19:20:48 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.2667942	-.020500	.0689431
Stddev	.0057004	.003954	.0003667
%RSD	2.136616	19.28977	.5318530
#1	.2704739	-.016959	.0693664
#2	.2602279	-.019774	.0687212
#3	.2696807	-.024767	.0687418

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7517.301	89248.99	5198.064	5865.954	8033.186
Stddev	14.326	295.47	43.370	31.415	12.612
%RSD	.1905703	.3310622	.8343434	.5355530	.1569997
#1	7502.787	88939.89	5203.281	5830.423	8020.501
#2	7517.686	89528.62	5152.322	5877.389	8033.333
#3	7531.431	89278.46	5238.590	5890.051	8045.724

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-08 Acquired: 9/30/2025 19:24:57 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.000692**	**-.002120**	**.0923866**	**.0098092**	**.0019996**	**.0717767**	**.1474903**
Stddev	.001806	.002801	.0009986	.0039360	.0016552	.0197564	.0011714
%RSD	261.1031	132.1576	1.080919	40.12599	82.77545	27.52477	.7942080
#1	-.002769	-.005255	.0933694	.0139971	.0036409	.0925038	.1478027
#2	.000502	.000136	.0924176	.0061860	.0003308	.0696657	.1484739
#3	.000192	-.001240	.0913729	.0092444	.0020271	.0531606	.1461944

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000124**	**.0007202**	**7.364188**	**.0006126**	**-.000420**	**.0123446**	**.0102467**
Stddev	.000040	.0000937	.028923	.0008167	.000432	.0007158	.0127737
%RSD	32.07336	13.00943	.3927556	133.3116	102.8483	5.798326	124.6616
#1	-.000152	.0008220	7.345331	.0014209	-.000582	.0122386	.0014083
#2	-.000078	.0006376	7.349745	-.000212	-.000747	.0116878	.0248923
#3	-.000142	.0007010	7.397488	.000629	.000070	.0131075	.0044395

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0373124**	**.4340880**	**.0012966**	**-.000815**	**298.8783**	**.0075403**	**.1810525**
Stddev	.0002334	.0398218	.0002204	.000324	1.0865	.0060237	.0004054
%RSD	.6255990	9.173666	17.00212	39.72719	.3635150	79.88603	.2239377
#1	.0373182	.4731404	.0013507	-.000481	298.5902	.0063870	.1808828
#2	.0370761	.4355846	.0010541	-.000836	297.9649	.0140573	.1807596
#3	.0375429	.3935390	.0014849	-.001127	300.0798	.0021767	.1815153

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3963947**	**.0000828**	**.0002701**	**-.005362**	**-.000526**	**.4503256**	**.0362806**
Stddev	.0178469	.0004976	.0004509	.000249	.003225	.0048840	.0002913
%RSD	4.502295	601.0971	166.9497	4.639966	612.7757	1.084557	.8028392
#1	.4167053	.0003238	.0003927	-.005093	-.004250	.4452725	.0365163
#2	.3892591	-.000489	.0006471	-.005411	.001333	.4550209	.0363706
#3	.3832196	.000414	-.000229	-.005583	.001338	.4506833	.0359550

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-08 Acquired: 9/30/2025 19:24:57 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.2276579	-.018208	.0476266
Stddev	.0058798	.001465	.0000234
%RSD	2.582744	8.044452	.0490552
#1	.2344473	-.019891	.0476012
#2	.2242764	-.017505	.0476315
#3	.2242500	-.017227	.0476471

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7441.136	87319.82	5138.494	5786.038	7932.253
Stddev	14.827	266.78	6.971	26.424	13.010
%RSD	.1992584	.3055248	.1356586	.4566872	.1640114
#1	7431.447	87374.41	5136.794	5785.892	7928.451
#2	7458.205	87555.09	5146.157	5812.534	7946.741
#3	7433.757	87029.96	5132.530	5759.687	7921.568

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-12 Acquired: 9/30/2025 19:29:06 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.002432**	**-.000082**	**-.000418**	**.0048443**	**.0017392**	**.0279216**	**.0514963**
Stddev	.001635	.002195	.002078	.0017147	.0012215	.0361318	.0027913
%RSD	67.23641	2690.500	496.9080	35.39563	70.23552	129.4045	5.420386
#1	-.004273	-.002227	-.000620	.0062806	.0018831	-.010040	.0546689
#2	-.001148	-.000178	-.002388	.0053065	.0028823	.061892	.0504022
#3	-.001876	.002160	.001753	.0029460	.0004520	.031913	.0494178

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000139**	**-.000097**	**133.9983**	**.0020056**	**-.000152**	**.0017458**	**.1289777**
Stddev	.000062	.000103	.9376	.0003426	.000410	.0004950	.0063361
%RSD	44.97555	106.7270	.6997294	17.08106	270.5171	28.35420	4.912531
#1	-.000069	-.000150	135.0605	.0018242	-.000615	.0017892	.1223043
#2	-.000158	-.000162	133.6492	.0017919	.000167	.0012305	.1297172
#3	-.000190	.000022	133.2854	.0024008	-.000008	.0022176	.1349115

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0164840**	**2.173660**	**.0012617**	**-.001806**	**277.2103**	**-.003516**	**.0031379**
Stddev	.0009279	.043279	.0004449	.000314	1.2395	.009017	.0003116
%RSD	5.628776	1.991079	35.26131	17.37708	.4471446	256.4233	9.930051
#1	.0169447	2.201895	.0008100	-.001600	278.6383	-.012893	.0028501
#2	.0154160	2.195252	.0012758	-.001651	276.4121	-.002746	.0034688
#3	.0170914	2.123832	.0016994	-.002168	276.5806	.005091	.0030948

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.979635**	**.0168221**	**.0010808**	**-.006554**	**-.003827**	**4.682727**	**.0061846**
Stddev	.078683	.0008730	.0004580	.001004	.003936	.034100	.0009655
%RSD	3.974633	5.189320	42.37485	15.31110	102.8533	.7282164	15.61094
#1	1.932785	.0174647	.0010856	-.007550	-.006216	4.720472	.0051792
#2	1.935645	.0158282	.0015364	-.006570	-.005982	4.673565	.0071045
#3	2.070476	.0171735	.0006205	-.005543	.000716	4.654143	.0062701

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-12 Acquired: 9/30/2025 19:29:06 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**2.057199**	**-.041768**	**.7398883**
Stddev	.009677	.002310	.0050958
%RSD	.4703777	5.531629	.6887241
#1	2.047543	-.044112	.7450482
#2	2.057156	-.041699	.7397574
#3	2.066896	-.039493	.7348591

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7361.837**	**88324.08**	**5075.555**	**5805.513**	**7812.523**
Stddev	9.030	235.77	35.337	23.420	11.477
%RSD	.1226605	.2669381	.6962137	.4034138	.1469015
#1	7355.547	88055.11	5044.664	5824.296	7800.696
#2	7357.780	88422.15	5067.915	5812.971	7813.259
#3	7372.184	88495.00	5114.087	5779.272	7823.614

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-16 Acquired: 9/30/2025 19:33:15 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.001629**	**-.001166**	**.0059367**	**.0063342**	**.0018818**	**.0722392**	**.0706861**
Stddev	.001918	.001105	.0009305	.0033591	.0032101	.0094105	.0025844
%RSD	117.7345	94.77124	15.67333	53.03165	170.5893	13.02693	3.656223
#1	-.001202	-.002215	.0069636	.0099625	.0055725	.0627821	.0705964
#2	.000039	-.000012	.0056969	.0057074	.0003346	.0723329	.0733141
#3	-.003724	-.001271	.0051495	.0033326	-.000262	.0816025	.0681476

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000096**	**.0000771**	**6.027143**	**.0001513**	**-.000419**	**.0023562**	**.0008804**
Stddev	.000021	.0001196	.024357	.0006609	.000344	.0009826	.0117710
%RSD	22.03622	154.9664	.4041264	436.6853	82.11526	41.70247	1336.920
#1	-.000081	.0000257	5.999659	-.000111	-.000022	.0012779	.0080364
#2	-.000086	-.000008	6.046056	-.000338	-.000603	.0025895	.0073099
#3	-.000120	.000214	6.035715	.000903	-.000631	.0032011	-.012705

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1648392**	**.2036711**	**.0009523**	**-.001670**	**257.2084**	**-.002036**	**.0281653**
Stddev	.0002461	.0415562	.0001023	.000624	.8883	.005353	.0004200
%RSD	.1492942	20.40360	10.74133	37.38575	.3453541	262.9514	1.491119
#1	.1649903	.2016210	.0008356	-.001093	256.3344	.003806	.0277143
#2	.1645552	.2462144	.0009954	-.002333	258.1103	-.006705	.0282362
#3	.1649721	.1631778	.0010261	-.001583	257.1805	-.003208	.0285453

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8450140**	**-.000145**	**.0009312**	**-.004910**	**.0045480**	**.3109947**	**.0122094**
Stddev	.0448745	.000498	.0002985	.000258	.0060725	.0205083	.0009832
%RSD	5.310506	344.5564	32.05126	5.254641	133.5207	6.594414	8.052874
#1	.8257189	-.000438	.0006907	-.004767	-.001893	.3083739	.0128195
#2	.8130143	.000431	.0012652	-.005208	.005368	.3326874	.0110752
#3	.8963089	-.000426	.0008376	-.004756	.010169	.2919228	.0127335

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3231-16 Acquired: 9/30/2025 19:33:15 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.2305456	-.023476	.0262944
Stddev	.0012016	.004028	.0001149
%RSD	.5211780	17.15879	.4370867
#1	.2294317	-.020008	.0262134
#2	.2318189	-.022526	.0264259
#3	.2303862	-.027894	.0262438

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7410.573	88471.31	5061.426	5827.451	7922.853
Stddev	22.814	107.64	43.698	12.263	17.842
%RSD	.3078517	.1216632	.8633460	.2104284	.2252018
#1	7413.416	88513.90	5025.501	5817.104	7922.610
#2	7431.832	88551.13	5110.073	5840.995	7940.816
#3	7386.471	88348.89	5048.705	5824.253	7905.133

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3232-02 Acquired: 9/30/2025 19:37:24 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.000727**	**-.000779**	**-.000246**	**.0038267**	**.0029250**	**.0380455**	**.1105520**
Stddev	.001852	.003640	.000167	.0018517	.0019353	.0144569	.0031090
%RSD	254.7689	467.5029	68.12247	48.38767	66.16334	37.99902	2.812223
#1	-.001260	-.000031	-.000253	.0020514	.0051548	.0214612	.1122583
#2	.001333	-.004734	-.000075	.0057463	.0016815	.0446870	.1069635
#3	-.002254	.002429	-.000409	.0036826	.0019388	.0479881	.1124341

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000122**	**-.000017**	**121.5690**	**.0018062**	**-.000287**	**.0010203**	**.0584997**
Stddev	.000137	.000145	.1363	.0002411	.000307	.0002338	.0099449
%RSD	112.2351	843.1843	.1121362	13.34666	106.8406	22.91568	16.99996
#1	-.000086	-.000176	121.7053	.0019989	-.000380	.0010965	.0576553
#2	-.000006	.000110	121.5692	.0018838	-.000537	.0012065	.0688399
#3	-.000273	.000014	121.4326	.0015359	.000055	.0007579	.0490039

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0134627**	**2.426437**	**.0020498**	**-.000865**	**273.1268**	**-.000186**	**.0056140**
Stddev	.0011139	.028844	.0004656	.000879	.7832	.004666	.0005503
%RSD	8.273938	1.188744	22.71468	101.5720	.2867576	2505.803	9.802861
#1	.0132759	2.397043	.0022108	.000134	272.4855	.005151	.0058154
#2	.0124540	2.454698	.0024135	-.001518	273.9997	-.003489	.0049913
#3	.0146581	2.427571	.0015250	-.001213	272.8953	-.002221	.0060352

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.212208**	**.0210036**	**.0013475**	**-.006437**	**-.001507**	**3.965589**	**.0052187**
Stddev	.142546	.0015134	.0003844	.000465	.007850	.020640	.0012446
%RSD	4.437632	7.205468	28.52498	7.218214	521.0707	.5204856	23.84894
#1	3.134193	.0220294	.0013108	-.006661	.001885	3.941923	.0043903
#2	3.125698	.0192654	.0009828	-.006747	-.010482	3.974983	.0046159
#3	3.376733	.0217159	.0017489	-.005903	.004077	3.979862	.0066499

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3232-02 Acquired: 9/30/2025 19:37:24 Type: Unk
Method: 6010-200.7 NEW(v228) 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	1.977713	-.041434	.7511837
Stddev	.016721	.003607	.0009067
%RSD	.8454490	8.706086	.1207034
#1	1.960736	-.038536	.7520920
#2	1.978237	-.040293	.7502786
#3	1.994165	-.045474	.7511806

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7303.582	83756.17	5008.471	5580.791	7765.201
Stddev	27.840	554.33	11.543	35.738	24.491
%RSD	.3811842	.6618368	.2304682	.6403767	.3153882
#1	7283.213	84343.03	5019.198	5619.608	7756.659
#2	7335.305	83241.43	4996.257	5573.511	7792.818
#3	7292.229	83684.04	5009.959	5549.253	7746.125

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3233-01 Acquired: 9/30/2025 19:41:33 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.002966**	**-.001000**	**.0055087**	**.0041092**	**.0057133**	**.1928660**
Stddev	.001166	.003417	.0011702	.0014084	.0013150	.0226394
%RSD	39.30712	341.7702	21.24362	34.27383	23.01560	11.73843
#1	-.003540	-.003642	.0046861	.0044167	.0042028	.2118810
#2	-.003734	.002859	.0068484	.0025724	.0063348	.1988944
#3	-.001625	-.002217	.0049915	.0053383	.0066024	.1678225

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0212010**	**-.000167**	**-.000098**	**359.0992**	**.0027329**	**.0171032**
Stddev	.0033818	.000082	.000063	1.5895	.0001553	.0001501
%RSD	15.95122	48.85182	64.22393	.4426446	5.683078	.8774471
#1	.0236737	-.000077	-.000056	360.4911	.0029008	.0170717
#2	.0225821	-.000236	-.000067	359.4394	.0027038	.0172666
#3	.0173472	-.000188	-.000170	357.3671	.0025943	.0169714

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011999**	**.0293366**	**-.000322**	**.0259875**	**.0072797**	**-.001678**
Stddev	.0003059	.0112902	.000459	.0301268	.0001466	.000123
%RSD	25.49426	38.48498	142.5512	115.9278	2.013435	7.312144
#1	.0015521	.0376938	-.000259	.0314362	.0071161	-.001750
#2	.0010473	.0164928	-.000809	-.006492	.0073991	-.001747
#3	.0010003	.0338233	.000103	.053018	.0073239	-.001536

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**361.8069**	**-.000701**	**.0085804**	**56.55279**	**.1599385**	**.0076986**
Stddev	6.5084	.003087	.0003602	.11148	.0019452	.0002583
%RSD	1.798866	440.6508	4.198342	.1971254	1.216195	3.355298
#1	365.9335	-.003252	.0089232	56.49490	.1615327	.0075277
#2	354.3042	-.001581	.0082050	56.48217	.1577712	.0075724
#3	365.1831	.002731	.0086130	56.68131	.1605117	.0079957

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3233-01 Acquired: 9/30/2025 19:41:33 Type: Unk
Method: 6010-200.7 NEW(v228) 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	-.005335	-.006114	1.416990	.4510267	F 60.59101	-.037283
Stddev	.000832	.003593	.016355	.0025031	.17789	.002367
%RSD	15.60131	58.77124	1.154236	.5549780	.2935865	6.348179
#1	-.005835	-.006855	1.412125	.4481383	60.38579	-.039317
#2	-.004374	-.002208	1.403619	.4523778	60.70130	-.034685
#3	-.005796	-.009280	1.435226	.4525639	60.68593	-.037848

Elem	Sr4077
Units	ppm
Avg	2.796138
Stddev	.017035
%RSD	.6092397
#1	2.809576
#2	2.801859
#3	2.776978

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7049.841	84131.32	4843.170	5504.118	7383.350
Stddev	27.096	184.15	48.087	28.314	32.012
%RSD	.3843489	.2188814	.9928788	.5144068	.4335665
#1	7073.714	83939.74	4803.382	5526.246	7408.206
#2	7020.390	84147.21	4829.524	5472.211	7347.229
#3	7055.418	84307.01	4896.606	5513.896	7394.617

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCV06 Acquired: 9/30/2025 19:45:51 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.016055**	**5.120135**	**4.929030**	**5.048178**	**4.973916**	**9.667377**	**9.873915**
Stddev	.005758	.077048	.004641	.001136	.012484	.023870	.066981
%RSD	.1147988	1.504797	.0941551	.0225109	.2509956	.2469139	.6783587
#1	5.016167	5.042895	4.934365	5.049434	4.986942	9.648057	9.924422
#2	5.010242	5.120520	4.925921	5.047877	4.972751	9.660012	9.797935
#3	5.021758	5.196989	4.926804	5.047222	4.962056	9.694061	9.899387

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2529006**	**2.472216**	**24.53623**	**.9732874**	**2.464598**	**1.238767**	**4.755887**
Stddev	.0028589	.002213	.04484	.0017612	.002489	.000149	.066888
%RSD	1.130455	.0895303	.1827508	.1809493	.1009741	.0119881	1.406421
#1	.2551898	2.472630	24.58777	.9712702	2.464267	1.238871	4.679878
#2	.2496961	2.474193	24.50615	.9740726	2.467236	1.238597	4.805767
#3	.2538159	2.469825	24.51477	.9745194	2.462292	1.238832	4.782015

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.475817**	**24.38595**	**2.469002**	**1.217704**	**24.38033**	**2.468136**	**2.381504**
Stddev	.018621	.17365	.004147	.003722	.29268	.011112	.006068
%RSD	.7521112	.7121061	.1679571	.3056730	1.200488	.4502093	.2548037
#1	2.492257	24.43477	2.472410	1.213462	24.69730	2.464828	2.375871
#2	2.455596	24.19312	2.470210	1.219229	24.32341	2.459054	2.380713
#3	2.479598	24.52997	2.464385	1.220422	24.12030	2.480526	2.387930

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.88183**	**5.094300**	**4.936046**	**4.952013**	**4.904055**	**4.596613**	**5.023844**
Stddev	.28872	.052188	.007705	.004849	.028361	.063887	.011669
%RSD	1.074025	1.024435	.1560927	.0979265	.5783154	1.389872	.2322779
#1	26.98374	5.129915	4.944494	4.955392	4.924969	4.525601	5.010470
#2	27.10576	5.034395	4.934238	4.946457	4.871774	4.649427	5.029113
#3	26.55597	5.118591	4.929406	4.954191	4.915423	4.614810	5.031950

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCV06 Acquired: 9/30/2025 19:45:51 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.065195	4.668917	4.837093
Stddev	.026041	.027752	.052027
%RSD	.5141189	.5944098	1.075581
#1	5.043492	4.694177	4.851059
#2	5.058023	4.639209	4.779509
#3	5.094071	4.673366	4.880712

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7243.418	89049.40	4888.779	5760.401	7919.217
Stddev	11.685	270.84	44.394	11.569	14.228
%RSD	.1613248	.3041409	.9080751	.2008329	.1796640
#1	7244.039	89187.06	4844.867	5773.711	7918.292
#2	7231.435	88737.38	4933.639	5752.754	7905.474
#3	7254.781	89223.75	4887.832	5754.739	7933.885

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCB06 Acquired: 9/30/2025 19:49:55 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000868**	**.0002578**	**-.000278**	**.0081103**	**.0013686**	**.0007234**
Stddev	.000479	.0017569	.000363	.0010903	.0023260	.0055530
%RSD	55.11386	681.4304	130.4536	13.44390	169.9573	767.6126
#1	-.001366	.0009016	-.000620	.0069702	.0039980	-.005667
#2	-.000828	-.001730	-.000315	.0091430	.0005286	.003465
#3	-.000411	.001602	.000102	.0082179	-.000421	.004373

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001144**	**-.000165**	**-.000189**	**-.023966**	**-.000201**	**-.000776**
Stddev	.0043181	.000076	.000125	.013890	.000316	.000174
%RSD	3773.657	45.91966	66.07255	57.95842	157.6071	22.40107
#1	.0003616	-.000252	-.000236	-.009001	.000141	-.000793
#2	.0043036	-.000110	-.000284	-.036446	-.000483	-.000594
#3	-.004322	-.000133	-.000047	-.026450	-.000260	-.000941

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0006421**	**.0010279**	**.0007420**	**-.018635**	**.0002101**	**-.001632**
Stddev	.0006876	.0028555	.0012146	.058193	.0002387	.000855
%RSD	107.0810	277.7956	163.6921	312.2811	113.6076	52.41592
#1	.0005320	-.002190	.0003000	-.061220	-.000062	-.000712
#2	.0000163	.003258	.0021158	-.042357	.000311	-.001780
#3	.0013782	.002016	-.000190	.047673	.000382	-.002403

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.160834**	**-.002896**	**.0007101**	**-.263417**	**-.000972**	**.0009518**
Stddev	.030525	.005896	.0004789	.061877	.000716	.0006931
%RSD	18.97896	203.6218	67.43508	23.49006	73.65036	72.82616
#1	-.181039	-.002047	.0012523	-.255724	-.000563	.0016807
#2	-.175743	.002530	.0005329	-.205746	-.000554	.0003010
#3	-.125720	-.009170	.0003451	-.328780	-.001798	.0008736

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCB06 Acquired: 9/30/2025 19:49:55 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.005852**	**.0004260**	**.0226128**	**.0006931**	F **.0118537**	F **-.024726**
Stddev	.000976	.0048912	.0113725	.0006160	.0009862	.002474
%RSD	16.67147	1148.027	50.29226	88.87661	8.319722	10.00442
#1	-.005796	.0036532	.0280097	.0013114	.0120372	-.027353
#2	-.004905	.0028266	.0302819	.0000794	.0127353	-.022441
#3	-.006854	-.005202	.0095467	.0006884	.0107887	-.024384

Elem	Sr4077
Units	ppm
Avg	**-.000016**
Stddev	.000099
%RSD	631.3808
#1	.000048
#2	-.000130
#3	.000035

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7723.873**	**90931.43**	**4946.720**	**5893.076**	**9172.931**
Stddev	13.213	344.66	17.347	67.623	14.276
%RSD	.1710616	.3790301	.3506791	1.147506	.1556269
#1	7722.420	91292.83	4943.310	5970.492	9166.456
#2	7737.752	90895.05	4931.331	5863.195	9189.297
#3	7711.447	90606.40	4965.519	5845.540	9163.041

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3233-01DUP Acquired: 9/30/2025 19:54:07 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.0004144**	**.0006010**	**.0035996**	**.0020861**	**.0042563**	**.1474614**
Stddev	.0019319	.0008815	.0025863	.0009618	.0028563	.0185707
%RSD	466.1726	146.6814	71.84797	46.10395	67.10789	12.59357
#1	-.000043	.0015657	.0015468	.0019710	.0050700	.1287159
#2	-.001248	-.000163	.0065044	.0011870	.0010814	.1478161
#3	.002534	.000400	.0027477	.0031002	.0066175	.1658522

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0124162**	**-.000217**	**-.000077**	**260.2876**	**.0018300**	**.0119931**
Stddev	.0011032	.000056	.000053	2.0886	.0005640	.0001577
%RSD	8.885187	25.59471	69.48486	.8024064	30.82193	1.314575
#1	.0120638	-.000179	-.000053	257.9189	.0014449	.0120755
#2	.0115323	-.000192	-.000138	261.8643	.0024775	.0118114
#3	.0136526	-.000281	-.000039	261.0798	.0015677	.0120926

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0017652**	**.0034261**	**.0018185**	**.0336212**	**.0053604**	**-.001136**
Stddev	.0003987	.0121992	.0012199	.0445240	.0003626	.000806
%RSD	22.58704	356.0664	67.08607	132.4286	6.764913	70.96679
#1	.0014469	.0162572	.0028474	.0228167	.0055368	-.001426
#2	.0022124	-.008024	.0004708	.0825531	.0049433	-.001758
#3	.0016363	.002045	.0021372	-.004506	.0056011	-.000225

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**265.5987**	**-.001018**	**.0065830**	**40.31712**	**.1159939**	**.0055079**
Stddev	1.3756	.009055	.0003340	.13699	.0011957	.0002067
%RSD	.5179361	889.4365	5.074026	.3397699	1.030831	3.753116
#1	264.1785	-.004084	.0065145	40.15910	.1151649	.0054401
#2	266.9250	.009172	.0062886	40.40222	.1173645	.0057399
#3	265.6927	-.008143	.0069460	40.39003	.1154521	.0053435

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3233-01DUP Acquired: 9/30/2025 19:54:07 Type: Unk
Method: 6010-200.7 NEW(v228) 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	-.006683	-.007270	1.041134	.3260486	F 42.99903	-.030689
Stddev	.001404	.003144	.008152	.0007678	.20639	.002117
%RSD	21.00642	43.24012	.7830162	.2354775	.4799899	6.899024
#1	-.005171	-.010315	1.044151	.3265206	42.79081	-.032972
#2	-.006932	-.004037	1.031903	.3264625	43.20355	-.028789
#3	-.007945	-.007459	1.047347	.3251627	43.00272	-.030306

Elem	Sr4077
Units	ppm
Avg	2.025567
Stddev	.022092
%RSD	1.090662
#1	2.001227
#2	2.044350
#3	2.031125

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7092.237	84264.26	4865.666	5511.213	7505.445
Stddev	21.200	144.04	38.464	16.633	23.989
%RSD	.2989200	.1709402	.7905090	.3018013	.3196213
#1	7110.204	84191.90	4901.944	5493.576	7530.565
#2	7097.653	84170.75	4825.337	5513.448	7502.995
#3	7068.854	84430.14	4869.716	5526.616	7482.775

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3233-01LX5 Acquired: 9/30/2025 19:58:15 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.002699**	**-.001258**	**.0007586**	**.0071361**	**.0010412**	**.0425337**
Stddev	.001969	.000388	.0009308	.0033668	.0013356	.0133498
%RSD	72.95191	30.82279	122.7021	47.17971	128.2737	31.38632
#1	-.002037	-.000924	.0005174	.0064345	.0023904	.0272684
#2	-.004914	-.001166	.0017862	.0107984	-.000280	.0483103
#3	-.001147	-.001683	-.000028	.0041754	.001014	.0520224

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000388**	**-.000196**	**-.000103**	**76.90059**	**-.000018**	**.0032133**
Stddev	.001322	.000078	.000040	.76009	.000525	.0002978
%RSD	340.7555	39.78773	38.84770	.9884019	2872.112	9.267554
#1	-.001409	-.000109	-.000123	77.02876	.000432	.0028696
#2	.001105	-.000220	-.000057	77.58845	-.000595	.0033759
#3	-.000860	-.000259	-.000130	76.08457	.000109	.0033944

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0002780**	**-.010653**	**-.000328**	**.0175397**	**.0017940**	**-.001220**
Stddev	.0007195	.002957	.000971	.0257344	.0004343	.000539
%RSD	258.8071	27.76165	296.2587	146.7207	24.20809	44.15801
#1	.0010049	-.012663	-.000588	-.012131	.0020160	-.000661
#2	.0002631	-.012038	.000747	.030970	.0012936	-.001264
#3	-.000434	-.007257	-.001142	.033781	.0020724	-.001736

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**73.88423**	**-.001371**	**.0018140**	**10.79215**	**.0322434**	**.0019737**
Stddev	.63129	.003195	.0003585	.16920	.0011397	.0004856
%RSD	.8544335	233.0537	19.76487	1.567800	3.534827	24.60461
#1	74.27785	.001393	.0017840	10.98699	.0314026	.0025327
#2	74.21877	-.000637	.0021865	10.70719	.0335406	.0017325
#3	73.15608	-.004870	.0014714	10.68226	.0317869	.0016559

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3233-01LX5 Acquired: 9/30/2025 19:58:15 Type: Unk
Method: 6010-200.7 NEW(v228) 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	-.006943	-.001863	.3026877	.0882747	F 11.94129	-.026038
Stddev	.000464	.001328	.0196406	.0024710	.04256	.001820
%RSD	6.679975	71.25608	6.488729	2.799202	.3564444	6.989606
#1	-.006442	-.000361	.3253480	.0897139	11.95128	-.028126
#2	-.007357	-.002881	.2905615	.0896887	11.97797	-.024782
#3	-.007030	-.002348	.2921535	.0854215	11.89462	-.025208

Elem	Sr4077
Units	ppm
Avg	.5870116
Stddev	.0048373
%RSD	.8240643
#1	.5883558
#2	.5910348
#3	.5816444

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7573.907	91811.76	5054.799	5892.682	8276.659
Stddev	13.852	418.15	35.610	12.332	9.266
%RSD	.1828913	.4554394	.7044881	.2092799	.1119532
#1	7579.750	91481.25	5051.313	5879.887	8279.457
#2	7558.091	91672.18	5021.060	5904.493	8266.317
#3	7583.881	92281.84	5092.024	5893.668	8284.204

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3233-01MS Acquired: 9/30/2025 20:02:24 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.8377348**	**2.145857**	**.9784532**	**2.124758**	**.8250601**	**2.114067**
Stddev	.0048229	.085012	.0040485	.008852	.0017456	.012127
%RSD	.5757070	3.961665	.4137628	.4166242	.2115721	.5736201
#1	.8422728	2.185516	.9737851	2.115548	.8232094	2.126503
#2	.8326702	2.203793	.9805716	2.125522	.8252938	2.113422
#3	.8382613	2.048263	.9810029	2.133203	.8266771	2.102276

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2189120**	**.1967369**	**.2034413**	**315.7600**	**.4033538**	**.2198236**
Stddev	.0013510	.0014965	.0005131	.9300	.0033649	.0006472
%RSD	.6171236	.7606856	.2521876	.2945368	.8342418	.2943986
#1	.2174129	.1953118	.2028874	315.1319	.4052334	.2191007
#2	.2192879	.1982959	.2039002	316.8284	.3994689	.2200210
#3	.2200352	.1966032	.2035362	315.3197	.4053590	.2203490

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2979326**	**3.040474**	**.1989169**	**1.916248**	**.5153113**	**.0732020**
Stddev	.0013079	.037284	.0006990	.030464	.0012901	.0012336
%RSD	.4389932	1.226258	.3514189	1.589754	.2503445	1.685218
#1	.2964758	3.062822	.1991459	1.936373	.5138447	.0733132
#2	.2983161	2.997432	.1994727	1.931172	.5158188	.0743763
#3	.2990059	3.061166	.1981321	1.881200	.5162705	.0719166

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**325.5137**	**.3001298**	**.2116723**	**59.48748**	**.4169705**	**.4301795**
Stddev	2.3638	.0019676	.0001614	.39103	.0026196	.0018096
%RSD	.7261885	.6555859	.0762660	.6573254	.6282576	.4206516
#1	328.2432	.3019813	.2115545	59.85647	.4155755	.4284935
#2	324.1623	.3003444	.2118563	59.07763	.4199925	.4299535
#3	324.1356	.2980637	.2116060	59.52836	.4153437	.4320914

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3233-01MS Acquired: 9/30/2025 20:02:24 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.7317648	.1875473	2.089851	6.780533	F 53.13100	.1522812
Stddev	.0010983	.0023222	.036873	.021898	.20050	.0019776
%RSD	.1500943	1.238191	1.764363	.3229590	.3773721	1.298628
#1	.7304966	.1897812	2.114784	6.795072	53.16718	.1525574
#2	.7323917	.1877148	2.047496	6.791180	53.31095	.1541062
#3	.7324061	.1851459	2.107274	6.755347	52.91487	.1501801

Elem	Sr4077
Units	ppm
Avg	2.654876
Stddev	.010465
%RSD	.3941710
#1	2.656924
#2	2.664165
#3	2.643538

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6901.893	82669.21	4784.750	5461.155	7256.702
Stddev	12.313	604.39	20.208	49.456	16.075
%RSD	.1783999	.7310978	.4223366	.9056006	.2215226
#1	6916.111	82031.46	4785.884	5404.620	7265.392
#2	6894.799	83233.54	4764.000	5496.407	7238.153
#3	6894.769	82742.64	4804.368	5482.437	7266.562

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3233-01A Acquired: 9/30/2025 20:10:29 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.4909574	1.277677	.5775735	1.268686	.3662086	.3823142
Stddev	.1525564	.353475	.1801943	.381890	.1276103	.0260601
%RSD	31.07325	27.66547	31.19851	30.10120	34.84634	6.816421
#1	.3406938	.920577	.3988220	.888784	.2420521	.3876420
#2	.4864707	1.285040	.5747216	1.264741	.3595609	.3540018
#3	.6457077	1.627413	.7591768	1.652532	.4970129	.4052987

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0425914	.0412194	.1197702	360.0135	.0816473	.1366150
Stddev	.0033297	.0080372	.0384800	1.9322	.0167310	.0385543
%RSD	7.817818	19.49868	32.12820	.5367068	20.49176	28.22111
#1	.0408300	.0332074	.0814457	361.8301	.0654876	.0982198
#2	.0405124	.0411692	.1194609	360.2269	.0805581	.1362989
#3	.0464319	.0492817	.1584039	357.9834	.0988963	.1753264

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1739739	.3343929	.0214283	.2036018	.3053275	.0186889
Stddev	.0557618	.0578644	.0049654	.0152877	.0962785	.0033354
%RSD	32.05184	17.30431	23.17230	7.508634	31.53287	17.84712
#1	.1187975	.2957010	.0170349	.1886362	.2096612	.0153857
#2	.1728208	.3065637	.0204346	.2191924	.3041145	.0186253
#3	.2303032	.4009140	.0268155	.2029769	.4022067	.0220557

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	365.7202	.0315628	.0513960	60.07966	.2230710	.1869688
Stddev	2.7115	.0069061	.0083655	.77083	.0109240	.0665554
%RSD	.7414032	21.88050	16.27659	1.283018	4.897078	35.59708
#1	362.7041	.0269571	.0430629	60.11880	.2113885	.1222719
#2	367.9559	.0282279	.0513314	59.29000	.2247926	.1833956
#3	366.5006	.0395035	.0597936	60.83017	.2330319	.2552388

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3233-01A Acquired: 9/30/2025 20:10:29 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.3042179	.0035854	1.547524	4.200123	F 60.79386	-.008289
Stddev	.1181590	.0039058	.031993	1.190418	.22490	.001566
%RSD	38.84025	108.9372	2.067394	28.34245	.3699402	18.89621
#1	.1898781	.0008663	1.518019	3.007922	60.53602	-.006727
#2	.2969181	.0018288	1.543023	4.203698	60.89596	-.008279
#3	.4258576	.0080611	1.581529	5.388749	60.94961	-.009860

Elem	Sr4077
Units	ppm
Avg	2.822876
Stddev	.019541
%RSD	.6922292
#1	2.844170
#2	2.818693
#3	2.805766

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7002.802	83843.07	4932.627	5463.602	7334.988
Stddev	22.443	314.25	47.836	22.200	10.365
%RSD	.3204875	.3748049	.9697944	.4063260	.1413147
#1	7008.792	83641.77	4909.200	5448.378	7336.957
#2	7021.642	84205.18	4901.020	5489.075	7344.227
#3	6977.971	83682.26	4987.661	5453.352	7323.779

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: PB169911BL Acquired: 9/30/2025 20:14:40 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.000649**	**.0017194**	**.0004370**	**.0085829**	**.0026495**	**.0046834**
Stddev	.000249	.0029582	.0017593	.0016511	.0023580	.0176860
%RSD	38.39338	172.0525	402.5923	19.23746	89.00004	377.6318
#1	-.000483	.0006943	.0006378	.0098524	.0046419	-.004023
#2	-.000936	-.000590	.0020872	.0067163	.0032604	.025035
#3	-.000529	.005054	-.001414	.0091799	.0000461	-.006962

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.004116**	**-.000267**	**-.000064**	**.0030689**	**-.000293**	**-.000298**
Stddev	.002797	.000087	.000057	.0098410	.000396	.000186
%RSD	67.95322	32.61263	88.90532	320.6744	134.9815	62.47249
#1	-.004365	-.000188	-.000069	.0144140	-.000603	-.000503
#2	-.001203	-.000360	-.000005	-.003162	.000153	-.000141
#3	-.006780	-.000252	-.000118	-.002045	-.000430	-.000249

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000213**	**-.011438**	**-.000630**	**-.023678**	**.0002334**	**-.001001**
Stddev	.000285	.013548	.000924	.027386	.0007035	.000392
%RSD	134.3104	118.4532	146.6395	115.6614	301.4789	39.12378
#1	.000055	-.015122	-.001305	-.023964	-.000566	-.000871
#2	-.000513	-.022763	-.001007	.003850	.000510	-.001441
#3	-.000180	.003572	.000423	-.050919	.000757	-.000691

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0595186**	**-.004037**	**.0004513**	**-.253297**	**-.003339**	**.0004274**
Stddev	.0268344	.002544	.0006114	.072547	.000986	.0003810
%RSD	45.08576	63.01078	135.4585	28.64105	29.51932	89.15821
#1	.0330199	-.005803	.0010425	-.175960	-.002341	.0007400
#2	.0588593	-.005187	.0004899	-.264085	-.003363	.0005392
#3	.0866766	-.001121	-.000178	-.319846	-.004312	.0000029

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: PB169911BL Acquired: 9/30/2025 20:14:40 Type: Unk
Method: 6010-200.7 NEW(v228) 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	-.005530	-.001278	.0181178	.0010466	F .0116579	F -.021592
Stddev	.000290	.001223	.0273378	.0009117	.0020510	.001335
%RSD	5.252862	95.69793	150.8891	87.11541	17.59275	6.182734
#1	-.005571	-.001041	.0443972	.0018936	.0135779	-.021701
#2	-.005797	-.000191	.0201239	.0011645	.0094973	-.020207
#3	-.005221	-.002602	-.010168	.0000816	.0118986	-.022870

Elem	Sr4077
Units	ppm
Avg	.0000790
Stddev	.0000691
%RSD	87.40534
#1	.0001387
#2	.0000950
#3	.0000034

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7614.539	91740.50	5025.092	6048.917	8833.478
Stddev	10.799	310.87	21.389	41.019	19.806
%RSD	.1418186	.3388610	.4256407	.6781259	.2242198
#1	7608.510	91524.68	5000.484	6006.596	8812.615
#2	7627.007	92096.83	5039.221	6088.497	8852.024
#3	7608.101	91600.00	5035.571	6051.657	8835.794

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: PB169911BS Acquired: 9/30/2025 20:18:51 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.7647873	2.019456	.9066014	1.946744	.7913764	1.886999
Stddev	.0011077	.030869	.0019777	.005521	.0029002	.019693
%RSD	.1448400	1.528595	.2181401	.2836037	.3664709	1.043594
#1	.7660004	2.047091	.9086926	1.948784	.7897692	1.865678
#2	.7638296	2.025136	.9063502	1.950954	.7947243	1.904505
#3	.7645319	1.986141	.9047613	1.940493	.7896357	1.890813

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1904827	.1959103	.1807531	.9746582	.3884124	.1846761
Stddev	.0014032	.0018039	.0002958	.0161915	.0008270	.0002847
%RSD	.7366746	.9207797	.1636585	1.661250	.2129105	.1541389
#1	.1896274	.1978448	.1809232	.9858679	.3883677	.1843489
#2	.1897186	.1956120	.1809246	.9820119	.3876087	.1848669
#3	.1921022	.1942741	.1804115	.9560949	.3892608	.1848125

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2932962	2.866078	.1962954	1.913893	.4603472	.0701318
Stddev	.0007171	.038065	.0011954	.021650	.0009923	.0004374
%RSD	.2444918	1.328121	.6089741	1.131227	.2155604	.6237331
#1	.2929782	2.823129	.1949379	1.904011	.4611230	.0697847
#2	.2941173	2.895645	.1971904	1.898946	.4606896	.0706232
#3	.2927931	2.879461	.1967579	1.938721	.4592290	.0699876

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.554600	.2881458	.1949710	8.580191	.2761177	.4090099
Stddev	.060959	.0079152	.0004766	.148502	.0025290	.0007577
%RSD	2.386261	2.746951	.2444453	1.730757	.9158984	.1852567
#1	2.520759	.2793894	.1946558	8.426217	.2761645	.4083132
#2	2.624972	.2902558	.1955193	8.591817	.2735657	.4098166
#3	2.518068	.2947922	.1947380	8.722538	.2786229	.4088999

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: PB169911BS Acquired: 9/30/2025 20:18:51 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.6688375	.1917692	.8301922	5.315122	F .0070844	F .1556014
Stddev	.0020749	.0044296	.0104458	.018224	.0009373	.0039134
%RSD	.3102233	2.309873	1.258241	.3428683	13.23106	2.514990
#1	.6695953	.1878541	.8181323	5.333246	.0081151	.1525360
#2	.6704269	.1908762	.8364103	5.315321	.0068549	.1600093
#3	.6664902	.1965773	.8360339	5.296800	.0062831	.1542587

Elem	Sr4077
Units	ppm
Avg	.1857030
Stddev	.0010105
%RSD	.5441217
#1	.1845812
#2	.1865417
#3	.1859860

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7594.994	88789.05	4924.922	5900.333	8783.589
Stddev	4.510	735.51	7.041	59.816	7.340
%RSD	.0593772	.8283744	.1429722	1.013775	.0835641
#1	7597.859	89519.45	4923.443	5953.255	8777.210
#2	7589.795	88799.16	4932.586	5912.310	8781.945
#3	7597.327	88048.55	4918.738	5835.435	8791.611

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-01 Acquired: 9/30/2025 20:27:02 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.003162**	**-.001645**	**.0175532**	**.0121472**	**.0071094**	**.1558829**	**.1494005**
Stddev	.003476	.003460	.0012238	.0026258	.0017050	.0042196	.0017415
%RSD	109.9348	210.3247	6.971820	21.61651	23.98190	2.706906	1.165690
#1	-.003749	-.003540	.0164313	.0151269	.0089220	.1531007	.1499990
#2	.000570	.002348	.0173702	.0101715	.0068683	.1538099	.1507639
#3	-.006308	-.003744	.0188582	.0111433	.0055378	.1607380	.1474386

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000213**	**.0003801**	**.8888420**	**.0043991**	**-.000258**	**.2001645**	**.1071334**
Stddev	.000057	.0001135	.0157181	.0003672	.000456	.0020916	.0078283
%RSD	26.76042	29.86529	1.768383	8.346919	176.9358	1.044929	7.307098
#1	-.000255	.0004262	.8736415	.0039767	-.000705	.1977718	.1059378
#2	-.000236	.0004633	.9050311	.0045782	.000206	.2016452	.0999717
#3	-.000148	.0002508	.8878536	.0046424	-.000274	.2010765	.1154908

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0160499**	**.1464634**	**.0024128**	**-.001691**	**338.1888**	**.0016740**	**.4850575**
Stddev	.0004563	.0342391	.0004556	.000608	3.9668	.0062404	.0053923
%RSD	2.843159	23.37727	18.88242	35.95620	1.172956	372.7950	1.111688
#1	.0158401	.1110948	.0020350	-.001481	339.3356	-.005323	.4911854
#2	.0157362	.1794485	.0022848	-.002376	341.4559	.003679	.4829496
#3	.0165733	.1488469	.0029188	-.001215	333.7749	.006665	.4810375

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6211350**	**.0329907**	**.0010856**	**-.001860**	**.0040998**	**.1969577**	**.0928877**
Stddev	.0420150	.0025548	.0001776	.000254	.0021723	.0296583	.0018978
%RSD	6.764224	7.744132	16.35880	13.66583	52.98640	15.05823	2.043065
#1	.6173814	.0347057	.0010676	-.002001	.0039760	.2288216	.0907295
#2	.5811228	.0300544	.0009176	-.001567	.0063314	.1701567	.0936383
#3	.6649009	.0342119	.0012714	-.002013	.0019920	.1918946	.0942954

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-01 Acquired: 9/30/2025 20:27:02 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**2.347731**	**-.020694**	**.0056091**
Stddev	.023497	.001396	.0003187
%RSD	1.000817	6.746671	5.682480
#1	2.325385	-.022113	.0052935
#2	2.345577	-.019321	.0059309
#3	2.372230	-.020649	.0056029

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7220.374**	**85824.07**	**4909.861**	**5700.702**	**7752.973**
Stddev	75.096	1029.91	28.342	70.711	75.943
%RSD	1.040051	1.200026	.5772521	1.240385	.9795277
#1	7306.884	84986.19	4941.596	5631.593	7840.661
#2	7171.988	85512.14	4887.068	5697.600	7708.603
#3	7182.250	86973.89	4900.920	5772.912	7709.654

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-02 Acquired: 9/30/2025 20:31:16 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.000813**	**-.003179**	**.0294910**	**.0091868**	**.0074939**	**.0930345**	**.1175165**
Stddev	.003465	.000888	.0023199	.0012732	.0040585	.0290805	.0032353
%RSD	426.1463	27.92351	7.866623	13.85850	54.15771	31.25776	2.753073
#1	-.002648	-.002300	.0268126	.0083200	.0121496	.1117041	.1191777
#2	.003184	-.003163	.0308723	.0106485	.0056301	.1078711	.1137881
#3	-.002975	-.004075	.0307880	.0085918	.0047021	.0595282	.1195839

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000245**	**.0049711**	**1.541377**	**.0023362**	**-.000130**	**.2118748**	**.0528687**
Stddev	.000008	.0001015	.012690	.0003030	.000290	.0001396	.0096753
%RSD	3.460901	2.042508	.8233160	12.96919	222.6255	.0658895	18.30060
#1	-.000237	.0050107	1.532960	.0019926	.000185	.2120116	.0427425
#2	-.000244	.0050468	1.535196	.0024511	-.000387	.2118803	.0620192
#3	-.000254	.0048557	1.555973	.0025650	-.000189	.2117325	.0538443

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0233198**	**.1128771**	**.0040847**	**-.001327**	**232.9600**	**-.000911**	**12.07724**
Stddev	.0005602	.0383737	.0002739	.000529	1.6837	.003006	.19806
%RSD	2.402455	33.99601	6.705948	39.87606	.7227325	330.0046	1.639935
#1	.0237553	.1504169	.0041238	-.000740	234.8165	.002197	12.24740
#2	.0226877	.0737206	.0043371	-.001474	231.5319	-.001126	11.85983
#3	.0235163	.1144938	.0037934	-.001767	232.5316	-.003803	12.12450

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3355801**	**.0088469**	**-.008571**	**-.003181**	**-.001228**	**.0972434**	**.0344953**
Stddev	.0231232	.0007876	.000399	.000810	.003412	.0349122	.0015718
%RSD	6.890522	8.902327	4.653213	25.45242	277.8372	35.90183	4.556459
#1	.3556677	.0081342	-.008198	-.003577	-.003917	.1346471	.0362470
#2	.3103031	.0087140	-.008991	-.002250	.002610	.0915638	.0332082
#3	.3407694	.0096925	-.008524	-.003717	-.002378	.0655193	.0340309

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-02 Acquired: 9/30/2025 20:31:16 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.3720864	-.022294	.0083211
Stddev	.0034386	.002012	.0001384
%RSD	.9241284	9.024577	1.662672
#1	.3711579	-.020345	.0084385
#2	.3758939	-.024363	.0081686
#3	.3692074	-.022173	.0083563

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7332.006	85862.87	4834.751	5652.238	7950.000
Stddev	30.575	382.36	14.585	19.133	23.433
%RSD	.4170064	.4453104	.3016678	.3384969	.2947604
#1	7332.100	85804.75	4845.854	5653.590	7943.526
#2	7301.384	86270.96	4840.167	5670.659	7930.484
#3	7362.534	85512.91	4818.233	5632.465	7975.990

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCV07 Acquired: 9/30/2025 20:35:32 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.884429**	**5.285602**	**4.822201**	**4.932058**	**4.864356**	**9.634343**	**9.813671**
Stddev	.012464	.140525	.011394	.022153	.008361	.021389	.063808
%RSD	.2551810	2.658643	.2362854	.4491591	.1718898	.2220110	.6501933
#1	4.898583	5.440988	4.835302	4.955482	4.873776	9.618404	9.781539
#2	4.875091	5.248390	4.816696	4.929247	4.857813	9.625973	9.772317
#3	4.879614	5.167428	4.814604	4.911444	4.861480	9.658651	9.887157

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2520044**	**2.418652**	**24.39114**	**.9726784**	**2.411380**	**1.210045**	**4.768527**
Stddev	.0032750	.004740	.06908	.0027104	.002557	.001010	.000702
%RSD	1.299576	.1959724	.2832143	.2786540	.1060380	.0834663	.0147240
#1	.2544650	2.423943	24.42774	.9757027	2.414029	1.210534	4.769241
#2	.2482872	2.417218	24.31146	.9718638	2.411185	1.210718	4.767838
#3	.2532610	2.414794	24.43421	.9704687	2.408927	1.208884	4.768503

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.468975**	**24.37619**	**2.412991**	**1.214986**	**24.92426**	**2.456558**	**2.367930**
Stddev	.022461	.03575	.002764	.002593	.13701	.015760	.003114
%RSD	.9097259	.1466516	.1145492	.2134282	.5497160	.6415374	.1315193
#1	2.468985	24.40339	2.415971	1.216255	25.03779	2.460479	2.371333
#2	2.446509	24.33570	2.412492	1.212002	24.96290	2.439207	2.365221
#3	2.491431	24.38950	2.410511	1.216700	24.77207	2.469986	2.367237

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.90086**	**5.044989**	**4.855808**	**4.849533**	**4.883957**	**4.610064**	**4.832503**
Stddev	.17992	.063486	.011987	.011469	.031196	.031025	.005739
%RSD	.6688338	1.258403	.2468635	.2364928	.6387510	.6729848	.1187687
#1	26.77637	5.092212	4.866972	4.862762	4.886098	4.575714	4.837933
#2	27.10714	4.972818	4.857314	4.843455	4.851745	4.618431	4.826497
#3	26.81905	5.069937	4.843139	4.842384	4.914028	4.636048	4.833078

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCV07 Acquired: 9/30/2025 20:35:32 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV07 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.957270**	**4.632742**	**4.885459**
Stddev	.019566	.021478	.058548
%RSD	.3946962	.4636068	1.198404
#1	4.979261	4.628881	4.925713
#2	4.950760	4.613456	4.818295
#3	4.941789	4.655888	4.912370

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7383.649**	**88106.40**	**4865.379**	**5739.711**	**8090.158**
Stddev	14.475	230.79	46.175	6.056	13.099
%RSD	.1960431	.2619393	.9490568	.1055146	.1619181
#1	7377.351	88006.68	4825.230	5738.142	8079.219
#2	7373.390	87942.23	4915.837	5734.593	8086.581
#3	7400.206	88370.27	4855.069	5746.397	8104.675

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCB07 Acquired: 9/30/2025 20:39:36 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001425**	**-.001514**	**.0001789**	**.0076724**	**.0038210**	**.0075986**
Stddev	.0019581	.002311	.0005731	.0013229	.0017104	.0306578
%RSD	1373.674	152.6594	320.4356	17.24217	44.76250	403.4675
#1	.0018599	.001152	-.000327	.0089779	.0037607	-.027458
#2	.0005575	-.002746	.000063	.0077065	.0021416	.020862
#3	-.001990	-.002948	.000801	.0063328	.0055608	.029391

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000222**	**-.000188**	**-.000083**	**-.022538**	**-.000184**	**-.000432**
Stddev	.001990	.000093	.000072	.034541	.000361	.000217
%RSD	896.7503	49.30199	86.87331	153.2579	195.8854	50.11820
#1	-.001027	-.000082	-.000154	-.040006	-.000003	-.000613
#2	.002045	-.000253	-.000010	-.044855	.000050	-.000192
#3	-.001683	-.000231	-.000085	.017248	-.000599	-.000492

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000127**	**-.006984**	**-.000318**	**.0020631**	**.0002430**	**-.000496**
Stddev	.000364	.010553	.001075	.0176210	.0001079	.000618
%RSD	286.3798	151.1123	337.8674	854.1094	44.41571	124.5669
#1	-.000425	-.018078	-.000962	-.014328	.0001336	-.001024
#2	-.000234	.002929	-.000915	.020699	.0003493	-.000647
#3	.000278	-.005803	.000923	-.000181	.0002460	.000183

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.138539**	**.0010931**	**.0004116**	**-.260038**	**-.001388**	**.0006749**
Stddev	.047067	.0045748	.0002726	.072348	.000974	.0003450
%RSD	33.97393	418.5289	66.24396	27.82211	70.18255	51.11588
#1	-.090594	-.001805	.0007134	-.178185	-.002380	.0004275
#2	-.140348	-.001283	.0001831	-.315432	-.000433	.0010690
#3	-.184676	.006367	.0003383	-.286497	-.001351	.0005282

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCB07 Acquired: 9/30/2025 20:39:36 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB07 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.005509**	**-.001537**	**.0107476**	**.0007143**	F **.0144793**	F **-.019585**
Stddev	.000661	.003078	.0058166	.0011734	.0030029	.000818
%RSD	11.99769	200.2034	54.12000	164.2635	20.73890	4.176806
#1	-.005822	-.005083	.0083231	.0013663	.0179419	-.020028
#2	-.004749	.000441	.0173843	-.000640	.0129061	-.018641
#3	-.005954	.000030	.0065355	.001417	.0125899	-.020086

Elem	Sr4077
Units	ppm
Avg	**-.000254**
Stddev	.000233
%RSD	91.79356
#1	.000012
#2	-.000348
#3	-.000425

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7673.303**	**93591.94**	**4947.811**	**6056.000**	**9018.968**
Stddev	25.269	417.71	12.983	56.644	16.541
%RSD	.3293075	.4463101	.2624010	.9353335	.1834070
#1	7646.913	93129.36	4962.476	6001.119	9003.656
#2	7675.720	93941.53	4937.783	6114.256	9016.734
#3	7697.277	93704.95	4943.174	6052.625	9036.512

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-03 Acquired: 9/30/2025 20:43:46 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.0004346	-.000637	.0023301	.0077129	.0040043	.0352621	.1658877
Stddev	.0002770	.001381	.0008838	.0009859	.0016859	.0256489	.0012943
%RSD	63.73128	216.7846	37.93021	12.78300	42.10241	72.73794	.7802274
#1	.0001716	-.002072	.0015530	.0083899	.0032980	.0057687	.1650224
#2	.0007238	-.000522	.0032915	.0081669	.0027863	.0523484	.1673756
#3	.0004085	.000683	.0021457	.0065817	.0059284	.0476692	.1652649

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000150	.0011558	2.078898	.0008435	-.000091	.0311428	.1089838
Stddev	.000106	.0001433	.025850	.0004885	.000261	.0005729	.0117106
%RSD	70.31704	12.39874	1.243425	57.91481	287.1166	1.839701	10.74523
#1	-.000049	.0009924	2.057824	.0013870	-.000227	.0317865	.1058175
#2	-.000260	.0012151	2.107741	.0007026	.000210	.0309532	.0991820
#3	-.000141	.0012600	2.071130	.0004410	-.000255	.0306887	.1219519

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0220075	1.435996	.0016553	-.001675	338.5866	.0022295	.3947062
Stddev	.0005891	.033226	.0003029	.000869	3.7340	.0030970	.0032468
%RSD	2.676911	2.313829	18.29812	51.89008	1.102816	138.9084	.8225764
#1	.0225816	1.427196	.0018235	-.001016	342.6977	-.001328	.3962384
#2	.0214044	1.408056	.0013056	-.002660	337.6565	.004321	.3969033
#3	.0220365	1.472737	.0018367	-.001349	335.4056	.003696	.3909768

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.033988	.0261778	.0003434	-.004888	-.004634	.1448724	.5098228
Stddev	.131083	.0019579	.0004874	.000088	.001943	.0058411	.0022761
%RSD	12.67739	7.479293	141.9351	1.798476	41.92332	4.031894	.4464543
#1	.969373	.0281164	-.000217	-.004801	-.004893	.1433881	.5078714
#2	1.184834	.0262158	.000672	-.004887	-.006434	.1399165	.5092738
#3	.947757	.0242011	.000574	-.004977	-.002575	.1513124	.5123233

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-03 Acquired: 9/30/2025 20:43:46 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.3412230	-.017671	.0101622
Stddev	.0032996	.002572	.0003943
%RSD	.9669830	14.55495	3.880422
#1	.3450254	-.018556	.0102674
#2	.3395303	-.014774	.0104934
#3	.3391132	-.019684	.0097260

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7388.583	86902.56	4977.510	5735.987	7881.277
Stddev	60.354	343.24	50.627	43.153	64.339
%RSD	.8168516	.3949749	1.017120	.7523238	.8163523
#1	7319.243	86514.33	5013.080	5688.633	7808.489
#2	7429.302	87027.58	4919.548	5746.230	7930.552
#3	7417.203	87165.78	4999.903	5773.096	7904.789

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-04 Acquired: 9/30/2025 20:47:57 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.001205**	**-.000853**	**-.000594**	**.0083862**	**.0011196**	**.0371294**	**.1190705**
Stddev	.002657	.000590	.001659	.0010507	.0021726	.0245431	.0029912
%RSD	220.6208	69.13817	279.4305	12.52896	194.0457	66.10159	2.512140
#1	-.002061	-.000412	-.002367	.0095975	.0004349	.0208553	.1156219
#2	.001776	-.001523	-.000333	.0078399	.0035521	.0653595	.1206284
#3	-.003328	-.000624	.000920	.0077212	-.000628	.0251734	.1209612

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000157**	**-.000082**	**1.410146**	**.0000811**	**-.000728**	**.0025454**	**.0180250**
Stddev	.000092	.000079	.011701	.0004606	.000360	.0000650	.0058154
%RSD	58.86676	96.30856	.8297602	567.9920	49.41114	2.555694	32.26329
#1	-.000055	-.000134	1.401328	.0006124	-.000793	.0026198	.0174964
#2	-.000236	.000009	1.423420	-.000163	-.000340	.0025169	.0124919
#3	-.000179	-.000122	1.405690	-.000206	-.001051	.0024994	.0240867

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0125751**	**.9073558**	**.0010476**	**-.000918**	**297.4211**	**-.004994**	**.1201851**
Stddev	.0011946	.0493236	.0006476	.000411	1.9761	.005279	.0002901
%RSD	9.499661	5.435972	61.81745	44.71913	.6644248	105.7047	.2413598
#1	.0125437	.9367391	.0017909	-.001069	299.5193	-.003564	.1203318
#2	.0113965	.9349167	.0007459	-.001232	297.1486	-.000578	.1198509
#3	.0137851	.8504115	.0006058	-.000454	295.5953	-.010842	.1203724

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6422875**	**.0219304**	**.0007163**	**-.004702**	**-.000614**	**.0983154**	**.3408480**
Stddev	.0782022	.0008481	.0004176	.000521	.002986	.0168277	.0026108
%RSD	12.17557	3.867241	58.29912	11.07229	486.0265	17.11600	.7659620
#1	.6051169	.0224051	.0011893	-.004697	-.003359	.0846062	.3438540
#2	.5896033	.0224349	.0005613	-.005224	-.001049	.1170954	.3395418
#3	.7321423	.0209513	.0003984	-.004183	.002565	.0932448	.3391481

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-04 Acquired: 9/30/2025 20:47:57 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.3133755	-.022406	.0069882
Stddev	.0011826	.001774	.0001252
%RSD	.3773850	7.919230	1.791882
#1	.3133756	-.024379	.0070073
#2	.3121928	-.021899	.0071027
#3	.3145580	-.020940	.0068545

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7312.546	87769.56	4968.012	5739.098	7786.524
Stddev	36.495	297.89	23.109	14.846	29.030
%RSD	.4990719	.3394054	.4651485	.2586764	.3728250
#1	7273.053	88100.07	4987.752	5754.165	7755.519
#2	7319.560	87521.77	4942.593	5738.645	7790.993
#3	7345.025	87686.83	4973.690	5724.484	7813.061

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-05 Acquired: 9/30/2025 20:52:07 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.002555**	**.0002301**	**-.000771**	**.0049168**	**.0030298**	**.0321181**	**.1360604**
Stddev	.001803	.0009141	.001397	.0013998	.0030005	.0292491	.0010776
%RSD	70.54281	397.3540	181.0531	28.46908	99.03236	91.06725	.7920250
#1	-.004487	.0004688	.000824	.0035490	.0056135	.0339377	.1351206
#2	-.000918	-.000780	-.001773	.0048549	-.000261	.0020017	.1358240
#3	-.002261	.001001	-.001366	.0063464	.003737	.0604149	.1372366

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000114**	**.0002424**	**.7005476**	**.0035627**	**-.000197**	**.0075542**	**.0359549**
Stddev	.000072	.0000941	.0064737	.0007459	.000154	.0005220	.0117205
%RSD	62.76106	38.81144	.9240952	20.93637	78.29211	6.910550	32.59764
#1	-.000152	.0002049	.6930871	.0028021	-.000367	.0074363	.0279343
#2	-.000032	.0003494	.7046841	.0035930	-.000065	.0081251	.0494056
#3	-.000159	.0001728	.7038716	.0042929	-.000159	.0071012	.0305248

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0066725**	**.3268728**	**.0023379**	**-.000638**	**279.9509**	**-.000882**	**.1368532**
Stddev	.0016691	.0222851	.0004644	.000299	2.2071	.004557	.0009345
%RSD	25.01393	6.817651	19.86471	46.84937	.7883868	516.4462	.6828789
#1	.0085426	.3523177	.0024725	-.000969	282.0376	-.001618	.1371892
#2	.0053337	.3108275	.0018211	-.000388	280.1745	-.005027	.1375734
#3	.0061413	.3174732	.0027202	-.000556	277.6405	.003998	.1357972

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4413598**	**.0176209**	**.0002374**	**.0045192**	**.0023124**	**.0359804**	**.1412930**
Stddev	.0708804	.0013243	.0004103	.0006511	.0002534	.0084321	.0015119
%RSD	16.05955	7.515340	172.8309	14.40665	10.95767	23.43539	1.070065
#1	.5230162	.0160928	.0001058	.0051995	.0022808	.0429152	.1430384
#2	.3957142	.0184353	.0006973	.0044561	.0020763	.0265942	.1403848
#3	.4053490	.0183344	-.000091	.0039019	.0025801	.0384318	.1404559

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-05 Acquired: 9/30/2025 20:52:07 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.2528295	-.023831	.0045582
Stddev	.0019454	.005045	.0003720
%RSD	.7694538	21.16913	8.160732
#1	.2526409	-.018584	.0049760
#2	.2509852	-.028645	.0044352
#3	.2548623	-.024263	.0042632

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7377.541	87408.67	5017.807	5750.971	7889.197
Stddev	15.646	494.61	49.175	21.767	20.301
%RSD	.2120757	.5658626	.9800159	.3784948	.2573227
#1	7360.057	87935.53	5072.370	5749.729	7865.763
#2	7382.343	86954.31	5004.137	5729.852	7900.416
#3	7390.224	87336.16	4976.912	5773.333	7901.412

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-06 Acquired: 9/30/2025 20:56:16 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.003847**	**-.000431**	**.0055182**	**.0065564**	**.0029266**	**.0295927**	**.0350261**
Stddev	.002112	.001114	.0008613	.0007957	.0011625	.0065137	.0007130
%RSD	54.90454	258.4268	15.60823	12.13646	39.72037	22.01121	2.035749
#1	-.001422	-.001432	.0050972	.0073021	.0024215	.0293641	.0343167
#2	-.005285	-.000629	.0065091	.0066484	.0021021	.0231963	.0357428
#3	-.004833	.000769	.0049485	.0057186	.0042561	.0362176	.0350189

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000080**	**.0003901**	**3.124455**	**.0010688**	**-.000350**	**.0133800**	**.0402193**
Stddev	.000088	.0001132	.027236	.0005033	.000476	.0004128	.0039493
%RSD	110.4360	29.01272	.8717052	47.08576	136.0339	3.085233	9.819332
#1	-.000137	.0002809	3.101774	.0004975	-.000664	.0133008	.0374329
#2	-.000124	.0003827	3.154663	.0014466	-.000583	.0138266	.0447388
#3	.000022	.0005068	3.116929	.0012623	.000198	.0130125	.0384862

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0290298**	**2.388291**	**.0010991**	**-.000836**	**223.5973**	**.0016454**	**.1460194**
Stddev	.0002858	.021409	.0003208	.000616	2.1475	.0046473	.0003294
%RSD	.9845435	.8964283	29.19045	73.70525	.9604483	282.4391	.2255981
#1	.0289088	2.370134	.0014391	-.001522	221.3308	.0068322	.1456716
#2	.0293562	2.382840	.0008017	-.000328	225.6018	-.002140	.1460599
#3	.0288244	2.411899	.0010564	-.000659	223.8593	.000244	.1463267

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.378468**	**.0129339**	**.0001666**	**.0055664**	**.0011547**	**.2872318**	**1.876634**
Stddev	.075996	.0009350	.0001942	.0009309	.0021568	.0339641	.006212
%RSD	5.513079	7.229001	116.6030	16.72382	186.7816	11.82462	.3310172
#1	1.408537	.0135830	.0001549	.0045247	.0033816	.3204048	1.873442
#2	1.434830	.0118622	-.000022	.0063171	-.000924	.2887622	1.883793
#3	1.292039	.0133565	.000366	.0058573	.001007	.2525284	1.872667

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-06 Acquired: 9/30/2025 20:56:16 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.2659412	-.024388	.0107255
Stddev	.0004705	.002213	.0002525
%RSD	.1769207	9.075225	2.353893
#1	.2654487	-.021892	.0104712
#2	.2663861	-.025160	.0109761
#3	.2659889	-.026112	.0107292

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7394.855	88486.31	4908.178	5853.545	7949.699
Stddev	18.643	668.03	17.589	51.880	19.246
%RSD	.2521021	.7549541	.3583535	.8863077	.2420910
#1	7373.713	89194.97	4922.917	5906.234	7932.306
#2	7401.916	87868.14	4888.708	5802.512	7946.416
#3	7408.936	88395.82	4912.910	5851.890	7970.375

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-07 Acquired: 9/30/2025 21:00:24 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.0025639	.0005948	.0010364	.0058598	.0025137	.1244811	.1804215
Stddev	.0009606	.0015179	.0005874	.0019118	.0013914	.0127723	.0026757
%RSD	37.46793	255.2180	56.67767	32.62642	55.35362	10.26047	1.483012
#1	.0035221	-.000056	.0003581	.0045506	.0035356	.1157668	.1834157
#2	.0025688	.002330	.0013728	.0049750	.0009290	.1185341	.1795839
#3	.0016008	-.000489	.0013784	.0080537	.0030766	.1391426	.1782648

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000177	.0003763	14.88612	.0005835	-.000591	.0060255	.0460372
Stddev	.000047	.0000771	.05041	.0001992	.000302	.0002365	.0125651
%RSD	26.51536	20.49678	.3386540	34.14580	51.01183	3.925534	27.29336
#1	-.000131	.0002876	14.94425	.0007055	-.000388	.0059860	.0374710
#2	-.000174	.0004137	14.85978	.0006913	-.000938	.0058112	.0604616
#3	-.000225	.0004276	14.85434	.0003536	-.000447	.0062793	.0401789

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0557793	3.233094	.0023437	-.000518	209.9939	-.000769	.6618145
Stddev	.0009940	.054215	.0000308	.000619	.2875	.002210	.0011668
%RSD	1.782029	1.676878	1.314685	119.5258	.1368932	287.3775	.1763094
#1	.0546768	3.172594	.0023387	-.001222	210.3151	-.003302	.6613954
#2	.0566070	3.277276	.0023767	-.000061	209.7607	.000768	.6609152
#3	.0560539	3.249410	.0023157	-.000270	209.9059	.000227	.6631330

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.425456	.0280338	.0002726	-.004468	.0016806	.5361109	.2322501
Stddev	.019400	.0003364	.0001793	.000516	.0040942	.0172315	.0025690
%RSD	.5663369	1.200060	65.76021	11.55121	243.6192	3.214174	1.106134
#1	3.421553	.0283890	.0000903	-.003902	.0018020	.5554916	.2343986
#2	3.446511	.0279923	.0002789	-.004914	.0057126	.5225197	.2294045
#3	3.408305	.0277200	.0004488	-.004588	-.002473	.5303215	.2329471

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-07 Acquired: 9/30/2025 21:00:24 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.5521787	-.020934	.0748463
Stddev	.0040896	.002271	.0005468
%RSD	.7406370	10.85031	.7305152
#1	.5493268	-.021421	.0753474
#2	.5503450	-.022922	.0749283
#3	.5568643	-.018459	.0742632

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7494.679	87832.04	5064.328	5788.057	8088.052
Stddev	27.178	372.04	35.283	19.306	37.236
%RSD	.3626323	.4235829	.6966988	.3335554	.4603855
#1	7463.331	87814.81	5024.517	5799.081	8045.108
#2	7509.069	88212.39	5076.733	5799.326	8111.366
#3	7511.636	87468.91	5091.733	5765.764	8107.683

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3207-01 Acquired: 9/30/2025 21:04:33 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.001714**	**.0000873**	**.1165496**	**.0071868**	**.0012967**	**.9291524**	**.1232149**
Stddev	.003920	.0011621	.0028849	.0008063	.0013196	.0012453	.0013927
%RSD	228.6407	1331.518	2.475269	11.21967	101.7624	.1340234	1.130286
#1	-.005900	-.001167	.1184028	.0078251	.0027276	.9297268	.1242618
#2	-.001115	.001127	.1132257	.0074545	.0010349	.9277236	.1216343
#3	.001871	.000303	.1180202	.0062806	.0001277	.9300069	.1237486

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000236**	**.0000632**	**3.522663**	**.0004880**	**-.000150**	**.0056311**	**.0240989**
Stddev	.000104	.0000241	.009993	.0003904	.000307	.0006646	.0126273
%RSD	43.90167	38.08963	.2836915	79.99767	204.7639	11.80314	52.39777
#1	-.000348	.0000373	3.531575	.0008170	-.000014	.0063183	.0293780
#2	-.000217	.0000674	3.524557	.0005902	-.000501	.0055833	.0096887
#3	-.000143	.0000849	3.511859	.0000567	.000066	.0049916	.0332299

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0030042**	**.3244864**	**.0014065**	**-.000607**	**289.5522**	**-.001608**	**.1152293**
Stddev	.0007733	.0403508	.0005399	.000384	3.3609	.004933	.0005717
%RSD	25.74111	12.43528	38.38710	63.31620	1.160720	306.8078	.4961390
#1	.0025455	.3707738	.0015197	-.001035	287.3984	-.006139	.1153576
#2	.0038970	.3059577	.0008190	-.000496	293.4249	.003647	.1157259
#3	.0025700	.2967278	.0018810	-.000291	287.8333	-.002331	.1146043

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7865774**	**.0287625**	**.0002169**	**-.006079**	**.0018368**	**1.311552**	**.0052786**
Stddev	.0605241	.0006270	.0002426	.000709	.0014514	.023283	.0005253
%RSD	7.694612	2.179749	111.8748	11.66906	79.01870	1.775256	9.950977
#1	.7548447	.0283381	-.000062	-.006717	.0026466	1.303554	.0053029
#2	.8563691	.0284668	.000376	-.005315	.0027026	1.337780	.0057913
#3	.7485183	.0294826	.000337	-.006205	.0001612	1.293322	.0047416

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3207-01 Acquired: 9/30/2025 21:04:33 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**2.047308**	**-.025574**	**.0096326**
Stddev	.014253	.001011	.0001985
%RSD	.6961644	3.954003	2.060351
#1	2.035701	-.026074	.0096974
#2	2.043008	-.024410	.0097907
#3	2.063216	-.026238	.0094099

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7374.250**	**88301.26**	**5005.539**	**5812.754**	**7882.614**
Stddev	37.663	260.05	48.724	31.597	42.201
%RSD	.5107353	.2945026	.9734024	.5435798	.5353644
#1	7414.707	88598.65	4952.677	5848.993	7923.571
#2	7367.838	88188.61	5048.651	5790.971	7885.001
#3	7340.205	88116.54	5015.287	5798.299	7839.270

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3207-02 Acquired: 9/30/2025 21:08:40 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.002524**	**-.001445**	**11.09288**	**.0052550**	**.0122360**	**.1715194**
Stddev	.002573	.004426	.05737	.0012063	.0030892	.0105934
%RSD	101.9337	306.2937	.5171789	22.95481	25.24651	6.176221
#1	-.001979	-.004792	11.05185	.0053213	.0128073	.1598818
#2	-.000267	-.003116	11.06836	.0064268	.0149997	.1806009
#3	-.005325	.003573	11.15844	.0040170	.0089011	.1740756

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0075971**	**-.000058**	**.0098475**	**180.3243**	**.0037146**	**.0038209**
Stddev	.0030690	.000042	.0000751	.6571	.0006010	.0005602
%RSD	40.39707	72.53553	.7623329	.3644074	16.17929	14.66107
#1	.0089850	-.000010	.0099275	180.8963	.0041343	.0040832
#2	.0097269	-.000088	.0098364	180.4702	.0030261	.0031777
#3	.0040793	-.000076	.0097785	179.6066	.0039832	.0042018

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0761181**	**.0460439**	**.1053346**	**8.911175**	**.0063540**	**-.001191**
Stddev	.0006253	.0119369	.0018696	.065157	.0003563	.000893
%RSD	.8214490	25.92494	1.774927	.7311798	5.608156	74.98373
#1	.0753979	.0462267	.1054074	8.907081	.0066766	-.000714
#2	.0764340	.0340167	.1034297	8.978282	.0064139	-.002221
#3	.0765224	.0578883	.1071668	8.848162	.0059715	-.000637

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**263.8647**	**.0006600**	**1.672377**	**5.696179**	**.1147365**	**.0013397**
Stddev	.6598	.0047983	.020915	.134362	.0009628	.0001579
%RSD	.2500380	727.0337	1.250601	2.358815	.8391150	11.78581
#1	263.8682	-.003566	1.693427	5.823634	.1158047	.0013654
#2	263.2032	-.000330	1.651600	5.555838	.1139357	.0014833
#3	264.5227	.005876	1.672105	5.709066	.1144691	.0011706

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3207-02 Acquired: 9/30/2025 21:08:40 Type: Unk
Method: 6010-200.7 NEW(v228) 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	-.006739	-.004877	.6393938	.0465110	F 102.2350	-.002827
Stddev	.000793	.002136	.0294961	.0015628	1.1466	.001289
%RSD	11.76654	43.80096	4.613132	3.360126	1.121550	45.58480
#1	-.007432	-.002797	.6057384	.0477319	101.8612	-.001375
#2	-.005875	-.007066	.6607496	.0447497	101.3219	-.003835
#3	-.006911	-.004770	.6516934	.0470514	103.5219	-.003270

Elem	Sr4077
Units	ppm
Avg	.4455217
Stddev	.0027170
%RSD	.6098420
#1	.4477596
#2	.4463070
#3	.4424986

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7292.690	86946.60	5004.829	5734.337	7707.148
Stddev	38.147	506.70	44.563	47.446	44.936
%RSD	.5230880	.5827769	.8903918	.8274020	.5830395
#1	7318.728	86411.78	4959.305	5681.368	7735.777
#2	7310.440	87419.49	5006.817	5772.939	7730.311
#3	7248.902	87008.54	5048.364	5748.704	7655.357

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3207-03 Acquired: 9/30/2025 21:12:47 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.003577**	**.0031121**	**.5190230**	**.0038745**	**.0065605**	**.0360709**
Stddev	.000679	.0001259	.0016867	.0017623	.0033197	.0019582
%RSD	18.99190	4.046069	.3249694	45.48388	50.60097	5.428690
#1	-.002974	.0029846	.5207931	.0019120	.0042801	.0382079
#2	-.004314	.0032363	.5188414	.0053216	.0050323	.0343627
#3	-.003445	.0031153	.5174344	.0043899	.0103690	.0356421

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0079327**	**-.000254**	**.0117354**	**233.1704**	**.0007936**	**.0183305**
Stddev	.0008500	.000023	.0001242	2.5846	.0003252	.0003547
%RSD	10.71520	9.174180	1.058132	1.108450	40.98300	1.935004
#1	.0079070	-.000269	.0116160	234.9108	.0005312	.0179603
#2	.0070958	-.000227	.0118639	234.3997	.0006921	.0186673
#3	.0087952	-.000266	.0117264	230.2006	.0011574	.0183639

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0118863**	**.0073496**	**.0840162**	**153.5431**	**.0083636**	**-.000763**
Stddev	.0006315	.0215171	.0009139	1.3760	.0003244	.000353
%RSD	5.312768	292.7654	1.087779	.8961957	3.878272	46.22210
#1	.0122436	.0283342	.0846819	154.6295	.0087326	-.000404
#2	.0122581	-.014663	.0843924	154.0041	.0081234	-.001109
#3	.0111571	.008378	.0829742	151.9958	.0082348	-.000775

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**458.6993**	**-.000500**	**2.171888**	**18.83201**	**.2271858**	**.0031656**
Stddev	4.5632	.004195	.019235	.28619	.0033063	.0006605
%RSD	.9948117	838.6724	.8856373	1.519712	1.455335	20.86614
#1	462.4000	-.005217	2.149807	18.56784	.2301605	.0026644
#2	460.0973	.002814	2.185010	19.13605	.2277710	.0029182
#3	453.6007	.000902	2.180845	18.79216	.2236260	.0039141

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3207-03 Acquired: 9/30/2025 21:12:47 Type: Unk
Method: 6010-200.7 NEW(v228) 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	-.006030	-.008996	1.726732	.0077490	F 215.5119	.0288281
Stddev	.001018	.002742	.011204	.0020204	.7755	.0054961
%RSD	16.88509	30.47793	.6488318	26.07293	.3598636	19.06505
#1	-.006165	-.007219	1.716446	.0060625	215.1849	.0257043
#2	-.006975	-.012154	1.738670	.0071962	216.3973	.0351742
#3	-.004952	-.007616	1.725079	.0099882	214.9533	.0256059

Elem	Sr4077
Units	ppm
Avg	1.336352
Stddev	.016282
%RSD	1.218373
#1	1.344456
#2	1.346992
#3	1.317609

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7014.184	83028.37	5123.512	5464.176	7335.603
Stddev	29.004	680.98	22.967	37.408	35.992
%RSD	.4135104	.8201772	.4482687	.6845955	.4906425
#1	6981.872	83771.54	5101.105	5507.243	7296.145
#2	7022.710	82434.28	5122.431	5445.510	7344.031
#3	7037.969	82879.28	5147.001	5439.775	7366.632

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3215-02 Acquired: 9/30/2025 21:17:00 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.001564**	**-.001784**	**.0061437**	**.0079647**	**.0025337**	**.0686408**	**.1555064**
Stddev	.000916	.001697	.0019011	.0022361	.0015050	.0044898	.0020819
%RSD	58.55552	95.07887	30.94279	28.07564	59.40001	6.541059	1.338758
#1	-.002478	-.000052	.0050638	.0092312	.0010723	.0685039	.1531850
#2	-.001567	-.001858	.0050286	.0053828	.0040788	.0731975	.1561265
#3	-.000647	-.003443	.0083388	.0092800	.0024499	.0642209	.1572078

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000055**	**.0002944**	**11.07736**	**.0006854**	**.0001367**	**.0026753**	**.0220193**
Stddev	.000105	.0000503	.03520	.0003486	.0000459	.0004474	.0081512
%RSD	189.4505	17.09321	.3177422	50.85701	33.55841	16.72471	37.01856
#1	-.000176	.0002789	11.11350	.0003391	.0001889	.0031919	.0137930
#2	.000003	.0003507	11.04319	.0010362	.0001185	.0024133	.0300934
#3	.000008	.0002537	11.07539	.0006810	.0001027	.0024207	.0221715

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3131382**	**1.239314**	**.0021121**	**-.000643**	**279.9147**	**.0016485**	**.1036902**
Stddev	.0016250	.032534	.0002793	.000548	2.3131	.0022589	.0014889
%RSD	.5189238	2.625162	13.22256	85.16963	.8263521	137.0250	1.435877
#1	.3131225	1.211382	.0018246	-.001261	278.8117	.0028694	.1036467
#2	.3115212	1.275036	.0023824	-.000454	282.5728	.0030342	.1052003
#3	.3147710	1.231525	.0021291	-.000215	278.3596	-.000958	.1022235

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.822919**	**.0287948**	**.0003454**	**-.003803**	**-.000932**	**.7529968**	**.0147326**
Stddev	.036763	.0009812	.0003746	.000215	.001330	.0240401	.0019902
%RSD	2.016706	3.407616	108.4752	5.664549	142.6748	3.192590	13.50860
#1	1.861356	.0276896	.0001082	-.003825	-.000197	.7277066	.0151072
#2	1.788098	.0291311	.0007772	-.004007	-.000132	.7755531	.0125818
#3	1.819302	.0295635	.0001506	-.003578	-.002467	.7557308	.0165089

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3215-02 Acquired: 9/30/2025 21:17:00 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**2.649468**	**-.020133**	**.0664975**
Stddev	.005814	.004938	.0002042
%RSD	.2194228	24.52907	.3070906
#1	2.654041	-.024825	.0665033
#2	2.651437	-.020592	.0662904
#3	2.642926	-.014981	.0666987

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7230.374**	**87067.66**	**5036.389**	**5733.611**	**7695.425**
Stddev	16.984	426.04	36.133	57.063	15.311
%RSD	.2348926	.4893168	.7174387	.9952406	.1989654
#1	7214.073	87068.73	5036.593	5727.948	7678.095
#2	7229.083	86641.09	5072.419	5679.590	7701.059
#3	7247.966	87493.16	5000.154	5793.294	7707.122

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: PB169843TB Acquired: 9/30/2025 21:21:08 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.000206**	**-.000721**	**-.000691**	**.0082355**	**.0017224**	**.0798752**
Stddev	.001887	.000755	.000678	.0017034	.0020774	.0199996
%RSD	915.8942	104.7618	98.13519	20.68415	120.6103	25.03858
#1	.001792	-.001147	-.000496	.0098140	.0021569	.0567831
#2	-.000451	.000151	-.000132	.0084624	-.000538	.0916457
#3	-.001958	-.001167	-.001446	.0064299	.003548	.0911968

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0264788**	**-.000304**	**.0000642**	**32.95304**	**.0012771**	**-.000060**
Stddev	.0022298	.000050	.0000540	.07913	.0005651	.000195
%RSD	8.420947	16.52910	84.17122	.2401379	44.24547	323.3933
#1	.0290115	-.000362	.0001078	32.93999	.0014196	-.000230
#2	.0248114	-.000279	.0000037	33.03789	.0017574	-.000103
#3	.0256134	-.000271	.0000811	32.88124	.0006545	.000152

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0012945**	**.0087801**	**.8805060**	**4.046589**	**.0006564**	**-.001078**
Stddev	.0003049	.0048186	.0030140	.014864	.0002840	.000499
%RSD	23.54951	54.88119	.3423061	.3673180	43.26270	46.26504
#1	.0013639	.0142992	.8825422	4.036380	.0008802	-.000545
#2	.0015587	.0054090	.8819322	4.039745	.0003369	-.001156
#3	.0009609	.0066322	.8770436	4.063642	.0007520	-.001534

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.401617**	**.0016386**	**.0138640**	**1.915227**	**.0148844**	**.0006586**
Stddev	.042443	.0039839	.0002813	.051334	.0009131	.0002328
%RSD	3.028175	243.1252	2.029254	2.680291	6.134704	35.33996
#1	1.428070	.0047147	.0135439	1.885214	.0142030	.0007328
#2	1.424121	-.002862	.0140719	1.885966	.0145283	.0008453
#3	1.352661	.003063	.0139763	1.974500	.0159219	.0003978

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: PB169843TB Acquired: 9/30/2025 21:21:08 Type: Unk
Method: 6010-200.7 NEW(v228) 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	-.005358	-.003955	.5600838	.0151939	F 20.43858	-.028454
Stddev	.001182	.000632	.0193326	.0008676	.18260	.001508
%RSD	22.05240	15.99207	3.451724	5.710049	.8933873	5.300274
#1	-.006718	-.004674	.5378992	.0143247	20.24479	-.030150
#2	-.004767	-.003486	.5733279	.0160599	20.46353	-.027265
#3	-.004588	-.003704	.5690244	.0151972	20.60742	-.027946

Elem	Sr4077
Units	ppm
Avg	.0682362
Stddev	.0001677
%RSD	.2457684
#1	.0680428
#2	.0683241
#3	.0683416

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7534.183	91686.81	4902.504	5927.471	8653.778
Stddev	21.099	551.31	13.979	45.376	17.144
%RSD	.2800425	.6012957	.2851499	.7655273	.1981044
#1	7519.607	91260.07	4886.368	5899.224	8650.050
#2	7524.565	92309.27	4910.190	5979.812	8638.806
#3	7558.377	91491.07	4910.955	5903.377	8672.479

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCV08 Acquired: 9/30/2025 21:25:15 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV08 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.023913**	**5.209868**	**4.951620**	**5.075402**	**4.981979**	**9.671583**	**9.954865**
Stddev	.007236	.156947	.008566	.012425	.001765	.006150	.020099
%RSD	.1440391	3.012491	.1730000	.2447994	.0354260	.0635873	.2018972
#1	5.015735	5.039133	4.946052	5.061631	4.983820	9.676762	9.935784
#2	5.029487	5.242611	4.961484	5.085772	4.981815	9.673202	9.952965
#3	5.026517	5.347860	4.947324	5.078804	4.980302	9.664786	9.975846

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2546554**	**2.481756**	**24.65231**	**.9967076**	**2.471113**	**1.240223**	**4.917348**
Stddev	.0013258	.005091	.04341	.0059000	.005902	.001012	.039654
%RSD	.5206431	.2051334	.1760818	.5919507	.2388588	.0815750	.8064047
#1	.2543678	2.477846	24.60302	1.000108	2.468975	1.239298	4.962637
#2	.2561014	2.487513	24.66908	1.000120	2.477786	1.241303	4.900544
#3	.2534969	2.479909	24.68483	.989895	2.466577	1.240069	4.888863

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.498076**	**24.55126**	**2.476348**	**1.241469**	**25.43564**	**2.491403**	**2.435161**
Stddev	.003259	.03747	.004293	.004686	.23856	.013696	.011263
%RSD	.1304530	.1526337	.1733676	.3774301	.9378863	.5497278	.4625208
#1	2.496887	24.52625	2.474152	1.243732	25.67415	2.483375	2.448151
#2	2.501763	24.59435	2.481295	1.244594	25.43572	2.483617	2.429225
#3	2.495580	24.53318	2.473597	1.236081	25.19703	2.507217	2.428108

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**27.04594**	**5.086908**	**4.959004**	**4.976348**	**4.933788**	**4.693752**	**4.946472**
Stddev	.08526	.017540	.003414	.015228	.010534	.015743	.028879
%RSD	.3152346	.3447996	.0688536	.3060070	.2135157	.3354018	.5838346
#1	27.10829	5.077206	4.959858	4.966121	4.928759	4.687551	4.914412
#2	27.08074	5.107155	4.961911	4.993849	4.945894	4.682054	4.954556
#3	26.94879	5.076364	4.955244	4.969074	4.926711	4.711651	4.970447

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCV08 Acquired: 9/30/2025 21:25:15 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV08 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.152069**	**4.612574**	**4.982707**
Stddev	.031308	.003796	.078316
%RSD	.6076857	.0823056	1.571757
#1	5.116122	4.613216	4.996626
#2	5.166714	4.608498	5.053130
#3	5.173370	4.616009	4.898364

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7318.387**	**86534.41**	**4870.805**	**5677.899**	**8005.698**
Stddev	2.743	389.48	22.253	42.784	9.682
%RSD	.0374850	.4500861	.4568656	.7535225	.1209437
#1	7317.828	86206.42	4868.009	5635.777	8010.434
#2	7315.965	86431.93	4850.081	5676.604	7994.559
#3	7321.366	86964.89	4894.323	5721.316	8012.101

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCB08 Acquired: 9/30/2025 21:29:18 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB08 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000901**	**-.000742**	**-.000449**	**.0061940**	**.0011962**	**-.000910**
Stddev	.003036	.001691	.000787	.0023380	.0030580	.019167
%RSD	336.9452	227.8333	175.1167	37.74580	255.6388	2107.311
#1	-.000737	-.000197	-.000041	.0035749	.0046962	.013071
#2	.002050	-.002638	.000049	.0069367	-.000958	-.022759
#3	-.004016	.000609	-.001356	.0080704	-.000149	.006959

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001499**	**-.000098**	**-.000001**	**.0278507**	**-.000608**	**-.000268**
Stddev	.002028	.000070	.000062	.0255679	.000829	.000232
%RSD	135.3075	71.17398	6286.366	91.80332	136.3220	86.63452
#1	-.002839	-.000018	.000054	.0276347	.000296	-.000414
#2	.000834	-.000147	-.000068	.0023915	-.000789	-.000390
#3	-.002493	-.000130	.000012	.0535258	-.001332	-.000000

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000465**	**-.015415**	**-.000202**	**-.022657**	**.0005122**	**-.000944**
Stddev	.000449	.012486	.001188	.039771	.0003075	.000461
%RSD	96.55866	80.99649	587.8233	175.5382	60.03323	48.89398
#1	-.000080	-.027267	.000389	.013617	.0003908	-.001420
#2	-.000357	-.002380	.000574	-.016402	.0002840	-.000499
#3	-.000957	-.016598	-.001569	-.065185	.0008619	-.000912

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **1.850026**	**.0000818**	**.0004732**	F **1.606326**	**-.000807**	**.0003329**
Stddev	.105096	.0085291	.0004735	.130637	.000972	.0001266
%RSD	5.680788	10429.05	100.0715	8.132676	120.4945	38.02648
#1	1.970757	.0055591	.0009503	1.705967	.000229	.0002615
#2	1.800296	.0044315	.0000033	1.654587	-.001700	.0004791
#3	1.779024	-.009745	.0004660	1.458425	-.000950	.0002581

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCB08 Acquired: 9/30/2025 21:29:18 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB08 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0107289	-.002715	.0002241	.0013992	F .0803013	F .0307428
Stddev	.0002421	.001851	.0067095	.0018837	.0009878	.0034755
%RSD	2.256283	68.17209	2994.309	134.6248	1.230115	11.30507
#1	.0105944	-.002536	-.004463	.0002288	.0814022	.0341514
#2	.0110084	-.000960	.007910	.0035721	.0794923	.0272041
#3	.0105840	-.004649	-.002774	.0003967	.0800094	.0308729

Elem	Sr4077
Units	ppm
Avg	.0000905
Stddev	.0001274
%RSD	140.7815
#1	-.000023
#2	.000228
#3	.000066

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7487.348	88885.48	4852.695	5832.769	8878.457
Stddev	37.877	250.13	31.948	8.074	44.786
%RSD	.5058739	.2814055	.6583561	.1384231	.5044304
#1	7446.006	88601.09	4825.850	5826.911	8827.849
#2	7520.379	88984.04	4844.204	5841.979	8912.973
#3	7495.658	89071.32	4888.030	5829.418	8894.550

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-09 Acquired: 9/30/2025 21:41:39 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.0006526	.0011821	.0162234	.0066890	.0102137	.0363928	.4175100
Stddev	.0006952	.0026374	.0012238	.0004536	.0017106	.0142296	.0007430
%RSD	106.5406	223.1087	7.543584	6.781022	16.74810	39.10011	.1779703
#1	.0007950	.0040980	.0170688	.0062388	.0119601	.0265564	.4183300
#2	.0012656	-.001037	.0148200	.0066824	.0085413	.0299129	.4173186
#3	-.000103	.000485	.0167812	.0071458	.0101396	.0527091	.4168813

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000305	-.000065	133.3958	.4956826	.0022578	.0291804	.1089973
Stddev	.000010	.000038	.6861	.0030964	.0005232	.0008901	.0064609
%RSD	3.309038	57.83502	.5143439	.6246696	23.17424	3.050466	5.927602
#1	-.000296	-.000028	133.1660	.4925567	.0023519	.0301023	.1163166
#2	-.000303	-.000064	132.8540	.4987486	.0016939	.0283259	.1065880
#3	-.000316	-.000104	134.1673	.4957424	.0027275	.0291129	.1040871

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006281	-.008950	.0006874	-.000746	57.06694	-.001205	.0181730
Stddev	.0008050	.012063	.0002955	.000336	.51439	.003821	.0001807
%RSD	128.1757	134.7807	42.97790	45.06582	.9013883	317.0719	.9943188
#1	.0015575	-.012970	.0008510	-.000439	56.47758	.002623	.0179644
#2	.0001480	-.018490	.0003464	-.001105	57.29764	-.005019	.0182711
#3	.0001787	.004609	.0008649	-.000694	57.42560	-.001219	.0182834

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	113.8070	.0011239	.1754320	-.003513	-.004316	.0811017	.0253121
Stddev	1.0369	.0012327	.0005604	.000104	.001227	.0070072	.0005785
%RSD	.9110753	109.6854	.3194221	2.955934	28.42646	8.640007	2.285613
#1	112.6808	.0009864	.1749130	-.003412	-.003191	.0890927	.0249488
#2	114.7221	-.000034	.1753568	-.003619	-.005624	.0782056	.0250083
#3	114.0181	.002420	.1760262	-.003507	-.004134	.0760069	.0259793

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-09 Acquired: 9/30/2025 21:41:39 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**3.782175**	**.1142274**	**2.059728**
Stddev	.022351	.0064600	.019502
%RSD	.5909482	5.655412	.9468040
#1	3.776799	.1088317	2.052843
#2	3.763002	.1124646	2.044602
#3	3.806723	.1213858	2.081738

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7235.184**	**85226.49**	**4851.471**	**5633.612**	**7821.214**
Stddev	21.781	374.14	48.013	7.670	23.158
%RSD	.3010454	.4389914	.9896681	.1361440	.2960964
#1	7211.285	85574.87	4837.257	5640.095	7795.934
#2	7253.919	84831.04	4904.987	5625.145	7841.405
#3	7240.348	85273.54	4812.169	5635.596	7826.303

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-09DUP Acquired: 9/30/2025 21:45:46 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.0017722	.0004156	.0171381	.0064273	.0086609	.0644388	.4471734
Stddev	.0039552	.0023318	.0013543	.0003610	.0009405	.0163465	.0014843
%RSD	223.1873	561.0478	7.902286	5.617143	10.85970	25.36750	.3319299
#1	-.001849	.0031057	.0186982	.0063795	.0085731	.0623133	.4456561
#2	.005993	-.001028	.0162652	.0068098	.0077673	.0492590	.4472419
#3	.001173	-.000830	.0164509	.0060925	.0096422	.0817441	.4486223

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000359	-.000183	143.0190	.5294205	.0023145	.0315283	.1099147
Stddev	.000009	.000058	.4451	.0016478	.0001401	.0006001	.0046364
%RSD	2.389505	31.75633	.3112421	.3112543	6.052518	1.903466	4.218221
#1	-.000350	-.000228	142.6531	.5287362	.0023447	.0309260	.1070567
#2	-.000366	-.000117	142.8893	.5282251	.0024370	.0315328	.1152642
#3	-.000361	-.000203	143.5145	.5313003	.0021618	.0321262	.1074230

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011152	-.011087	.0020558	-.001320	59.98705	-.000880	.0202403
Stddev	.0008649	.053792	.0001681	.000954	.38930	.003817	.0001597
%RSD	77.55788	485.1754	8.177751	72.28035	.6489691	433.5358	.7892153
#1	.0001226	.050902	.0019595	-.001105	60.40597	.000436	.0204238
#2	.0015155	-.038673	.0022500	-.002363	59.63641	.002104	.0201651
#3	.0017074	-.045490	.0019580	-.000492	59.91878	-.005181	.0201320

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	119.4855	.0013652	.1882302	-.003481	-.004553	.0885702	.0260018
Stddev	.2741	.0003998	.0007776	.000916	.002393	.0158915	.0008731
%RSD	.2294353	29.28430	.4131091	26.31251	52.56526	17.94221	3.357949
#1	119.7836	.0009326	.1891138	-.004205	-.003317	.0727094	.0258796
#2	119.2441	.0017211	.1876499	-.003787	-.007312	.0885092	.0269296
#3	119.4288	.0014420	.1879271	-.002451	-.003031	.1044921	.0251962

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-09DUP Acquired: 9/30/2025 21:45:46 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**4.045308**	**.1274086**	**2.197865**
Stddev	.026129	.0036435	.006219
%RSD	.6459103	2.859678	.2829540
#1	4.066256	.1272080	2.197261
#2	4.016030	.1238695	2.191970
#3	4.053639	.1311482	2.204364

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7284.247**	**87272.85**	**4870.179**	**5700.737**	**7884.661**
Stddev	20.174	230.46	32.320	16.002	17.931
%RSD	.2769545	.2640680	.6636326	.2807054	.2274135
#1	7277.858	87494.68	4903.539	5718.916	7880.091
#2	7306.843	87289.24	4867.987	5688.783	7904.434
#3	7268.042	87034.63	4839.011	5694.512	7869.457

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-09LX5 Acquired: 9/30/2025 21:49:53 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.000862**	**-.000758**	**.0027020**	**.0051227**	**.0039472**	**.0315141**	**.0865970**
Stddev	.001261	.000909	.0015239	.0014869	.0018947	.0110130	.0036828
%RSD	146.2980	119.8939	56.39877	29.02635	48.00123	34.94616	4.252810
#1	.000591	-.001069	.0014266	.0043806	.0048776	.0360204	.0824971
#2	-.001664	-.001471	.0043896	.0068346	.0051969	.0395592	.0896248
#3	-.001512	.000265	.0022898	.0041529	.0017672	.0189626	.0876692

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000210**	**-.000185**	**28.10113**	**.1020160**	**.0002965**	**.0056650**	**.0085705**
Stddev	.000088	.000056	.15661	.0000864	.0001597	.0003710	.0076897
%RSD	41.90945	30.22835	.5573008	.0846688	53.85559	6.548892	89.72277
#1	-.000114	-.000179	28.23269	.1019470	.0004759	.0055815	.0086204
#2	-.000230	-.000133	28.14280	.1021129	.0002441	.0060707	.0008560
#3	-.000286	-.000244	27.92790	.1019882	.0001697	.0053429	.0162353

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007433**	**-.040422**	**.0003016**	**-.000824**	**10.95377**	**-.000626**	**.0037338**
Stddev	.0005414	.058423	.0003044	.001021	.02718	.004297	.0000401
%RSD	72.83336	144.5311	100.9457	123.9031	.2481664	686.0968	1.073959
#1	.0013552	-.056375	.0004853	.000352	10.92240	-.005352	.0037091
#2	.0005481	.024320	-.000050	-.001335	10.97045	.000426	.0037801
#3	.0003266	-.089212	.000469	-.001488	10.96846	.003047	.0037123

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**22.23941**	**-.002406**	**.0358830**	**-.005537**	**.0017489**	**.0318312**	**.0052171**
Stddev	.03320	.000595	.0003273	.000907	.0018543	.0135638	.0000900
%RSD	.1493063	24.74315	.9122448	16.38980	106.0246	42.61153	1.724752
#1	22.26168	-.002741	.0356366	-.005432	.0027999	.0303945	.0052680
#2	22.20124	-.001719	.0357581	-.004686	-.000392	.0190430	.0051132
#3	22.25530	-.002759	.0362544	-.006492	.002839	.0460562	.0052700

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-09LX5 Acquired: 9/30/2025 21:49:53 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.7308716	.0099117	.4229604
Stddev	.0042389	.0010813	.0033343
%RSD	.5799759	10.90900	.7883289
#1	.7334276	.0091461	.4255913
#2	.7259786	.0111487	.4240794
#3	.7332086	.0094404	.4192105

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7521.104	90581.00	4888.014	5938.500	8474.681
Stddev	18.606	290.06	35.025	18.336	19.963
%RSD	.2473812	.3202248	.7165387	.3087674	.2355596
#1	7539.920	90852.66	4860.218	5959.164	8496.712
#2	7502.716	90614.84	4876.472	5932.163	8457.792
#3	7520.676	90275.50	4927.353	5924.173	8469.539

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-09MS Acquired: 9/30/2025 21:54:02 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.7254654	1.827444	.8616246	1.818924	.7180326	1.759471	.4495119
Stddev	.0036571	.030004	.0015237	.004093	.0025084	.011952	.0028127
%RSD	.5041006	1.641878	.1768361	.2250148	.3493391	.6792905	.6257164
#1	.7262705	1.859980	.8633513	1.823444	.7199764	1.758054	.4509637
#2	.7214728	1.821488	.8610541	1.815470	.7152011	1.772068	.4513020
#3	.7286528	1.800865	.8604686	1.817857	.7189204	1.748291	.4462700

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1802326	.1746213	87.64588	.6911889	.1789989	.2839694	2.834952
Stddev	.0026655	.0002901	.07893	.0005848	.0001816	.0003186	.057586
%RSD	1.478942	.1661344	.0900512	.0846082	.1014611	.1121789	2.031290
#1	.1801431	.1749197	87.66030	.6918641	.1792082	.2837532	2.830887
#2	.1829417	.1743402	87.71660	.6908608	.1789048	.2843352	2.779507
#3	.1776129	.1746039	87.56074	.6908419	.1788837	.2838196	2.894464

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1799310	1.699874	.4411824	.0624587	40.18816	.2675521	.1965510
Stddev	.0013526	.006761	.0001947	.0002531	.61614	.0019249	.0006980
%RSD	.7517588	.3977241	.0441420	.4052621	1.533140	.7194564	.3551369
#1	.1814917	1.699796	.4413969	.0626557	39.93933	.2692813	.1959410
#2	.1792032	1.693152	.4411336	.0621732	39.73535	.2678971	.1973122
#3	.1790981	1.706673	.4410167	.0625472	40.88981	.2654781	.1963997

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	83.59528	.2545587	.4900446	.6281728	.1728183	.8007523	5.288994
Stddev	1.09485	.0043483	.0007912	.0026129	.0011185	.0135086	.021008
%RSD	1.309699	1.708169	.1614586	.4159528	.6471828	1.686983	.3972038
#1	83.37194	.2541340	.4909144	.6265943	.1719575	.7974983	5.310109
#2	82.62932	.2591037	.4893675	.6267352	.1740825	.8155906	5.268095
#3	84.78457	.2504383	.4898518	.6311888	.1724149	.7891679	5.288777

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-09MS Acquired: 9/30/2025 21:54:02 Type: Unk
Method: 6010-200.7 NEW(v228) 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	2.372339	.2274489	1.503694
Stddev	.010579	.0028470	.002295
%RSD	.4459363	1.251733	.1526307
#1	2.381907	.2254732	1.501572
#2	2.360978	.2307123	1.503378
#3	2.374133	.2261612	1.506130

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7364.553	83833.88	4850.015	5593.834	8090.688
Stddev	32.818	799.70	27.589	59.155	33.540
%RSD	.4456199	.9539110	.5688481	1.057501	.4145475
#1	7391.412	84234.28	4871.718	5649.354	8119.741
#2	7327.972	84354.30	4818.967	5600.535	8053.984
#3	7374.274	82913.07	4859.359	5531.615	8098.339

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-09MSD Acquired: 9/30/2025 21:58:00 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.7804227**	**2.009462**	**.9384440**	**1.964515**	**.7774900**	**1.886003**	**.7048747**
Stddev	.0006483	.051221	.0037939	.008881	.0011691	.020427	.0043158
%RSD	.0830649	2.549001	.4042784	.4520511	.1503660	1.083092	.6122749
#1	.7803420	2.039240	.9428185	1.974440	.7783675	1.870756	.7092747
#2	.7811075	1.950317	.9364600	1.957319	.7761628	1.909212	.7047012
#3	.7798185	2.038829	.9360534	1.961788	.7779396	1.878042	.7006483

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1888212**	**.1901524**	**165.7696**	**.9961949**	**.1948460**	**.3186756**	**3.063699**
Stddev	.0014392	.0003997	.2685	.0020259	.0001786	.0003668	.011788
%RSD	.7621930	.2101985	.1619931	.2033682	.0916736	.1151031	.3847775
#1	.1878625	.1906035	165.7294	.9951006	.1950066	.3186268	3.065524
#2	.1904761	.1900114	166.0559	.9949515	.1948779	.3190644	3.051104
#3	.1881250	.1898423	165.5234	.9985327	.1946536	.3183357	3.074468

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1921736**	**1.819232**	**.4784076**	**.0594195**	**74.52419**	**.2826205**	**.2188333**
Stddev	.0022481	.032387	.0012138	.0009242	.57333	.0040283	.0003922
%RSD	1.169800	1.780260	.2537069	1.555309	.7693195	1.425337	.1792384
#1	.1905183	1.792739	.4796293	.0593815	75.14582	.2806950	.2189942
#2	.1947329	1.855337	.4783916	.0585150	74.01618	.2799163	.2191195
#3	.1912695	1.809619	.4772019	.0603621	74.41057	.2872502	.2183862

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**152.2092**	**.2711212**	**.6180744**	**.6961942**	**.1830122**	**.8706693**	**5.895139**
Stddev	.8278	.0039206	.0014930	.0019637	.0036420	.0369796	.038877
%RSD	.5438433	1.446086	.2415523	.2820615	1.990008	4.247262	.6594723
#1	152.7120	.2687115	.6197721	.6972843	.1831224	.9001222	5.928081
#2	151.2538	.2756451	.6169661	.6939273	.1865978	.8291681	5.852257
#3	152.6618	.2690068	.6174850	.6973710	.1793164	.8827176	5.905079

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-09MSD Acquired: 9/30/2025 21:58:00 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**4.715024**	**.3227086**	**2.734084**
Stddev	.031568	.0025444	.012194
%RSD	.6695280	.7884561	.4460092
#1	4.740617	.3204609	2.737219
#2	4.679748	.3254711	2.744405
#3	4.724707	.3221939	2.720629

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7191.423**	**84874.15**	**4895.766**	**5577.242**	**7747.932**
Stddev	6.591	276.48	28.652	22.476	5.551
%RSD	.0916518	.3257503	.5852384	.4029902	.0716448
#1	7189.161	84708.50	4902.615	5558.925	7745.765
#2	7186.261	85193.32	4864.311	5602.323	7743.791
#3	7198.847	84720.63	4920.374	5570.477	7754.240

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-09A Acquired: 9/30/2025 22:01:58 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.1223793	.4077830	.1610012	.3339090	.1921328	.0851118	.4209600
Stddev	.0538604	.1577841	.0600850	.1312093	.0775943	.0056568	.0025397
%RSD	44.01102	38.69316	37.31962	39.29492	40.38574	6.646378	.6033083
#1	.0699644	.2529016	.1027482	.2083097	.1196806	.0827663	.4192737
#2	.1195961	.4021294	.1574910	.3233295	.1827096	.0810050	.4197254
#3	.1775772	.5683179	.2227644	.4700877	.2740084	.0915642	.4238810

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0081201	.0288938	133.4027	.5034494	.0304971	.0718857	.1514855
Stddev	.0016891	.0124368	.4954	.0045297	.0124673	.0186669	.0131678
%RSD	20.80147	43.04318	.3713222	.8997362	40.88035	25.96748	8.692458
#1	.0064795	.0170604	132.8671	.4997550	.0186847	.0542067	.1384545
#2	.0080269	.0277642	133.4964	.5020901	.0292771	.0700460	.1512161
#3	.0098538	.0418569	133.8444	.5085032	.0435297	.0914043	.1647860

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0031845	.0123910	.0727571	.0034262	55.72958	.0017165	.0264267
Stddev	.0021582	.0553853	.0317152	.0010473	.07443	.0050082	.0012645
%RSD	67.76953	446.9810	43.59052	30.56699	.1335496	291.7628	4.785104
#1	.0024997	-.010660	.0425932	.0022476	55.81329	.0069091	.0250943
#2	.0014519	-.027746	.0698540	.0037807	55.70455	-.003084	.0265757
#3	.0056020	.075579	.1058240	.0042501	55.67089	.001325	.0276102

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	111.2598	.0149429	.2675212	.1463165	.0002808	.1241298	.9501493
Stddev	.1909	.0036350	.0391753	.0672837	.0023329	.0111386	.3955497
%RSD	.1715723	24.32560	14.64382	45.98500	830.7387	8.973327	41.63027
#1	111.0608	.0112221	.2301201	.0830732	-.001378	.1115852	.5720157
#2	111.4414	.0151212	.2641860	.1388575	.002948	.1279440	.9173585
#3	111.2773	.0184854	.3082575	.2170189	-.000728	.1328602	1.361074

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3199-09A Acquired: 9/30/2025 22:01:58 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**3.787379**	**.1225823**	**2.057862**
Stddev	.007114	.0012397	.002188
%RSD	.1878409	1.011338	.1063102
#1	3.790359	.1211535	2.055400
#2	3.792519	.1232209	2.058603
#3	3.779259	.1233726	2.059582

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7154.693**	**86941.06**	**4822.107**	**5626.000**	**7735.355**
Stddev	19.472	280.97	23.948	20.023	18.469
%RSD	.2721562	.3231713	.4966319	.3559087	.2387639
#1	7144.788	86939.71	4820.102	5623.265	7723.399
#2	7177.127	87222.70	4846.994	5647.251	7756.627
#3	7142.166	86660.76	4799.224	5607.485	7726.039

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: PB169917BL Acquired: 9/30/2025 22:06:02 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.0000087	.0003225	-.001156	.0059948	.0021008	.0271207
Stddev	.0015434	.0006174	.001283	.0034101	.0033890	.0132786
%RSD	17843.74	191.4425	110.9782	56.88375	161.3216	48.96104
#1	-.001624	-.000101	.000289	.0021050	.0059437	.0141931
#2	.000206	.000038	-.002161	.0084694	-.000461	.0407244
#3	.001444	.001031	-.001598	.0074099	.000819	.0264446

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006031	-.000171	-.000123	-.022226	-.000358	-.000416
Stddev	.0005728	.000076	.000223	.034364	.000450	.000342
%RSD	94.97364	44.15117	182.1487	154.6141	125.7019	82.27841
#1	.0000712	-.000120	-.000067	.005614	-.000536	-.000199
#2	.0012095	-.000258	.000067	-.060633	.000154	-.000238
#3	.0005286	-.000135	-.000369	-.011659	-.000693	-.000810

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000300	-.009782	.0004296	.0121543	-.000053	.0001075
Stddev	.000109	.016014	.0009264	.0285505	.000127	.0001843
%RSD	36.15503	163.7044	215.6349	234.9000	241.1149	171.3752
#1	-.000398	-.027138	.0003003	.0147777	-.000198	.0003010
#2	-.000183	.004422	-.000425	.0393026	.000039	.0000877
#3	-.000319	-.006630	.001414	-.017617	.000000	-.000066

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.180653	.0041829	.0000648	-.278855	-.005334	.0004095
Stddev	.028076	.0031538	.0003835	.028462	.000223	.0003428
%RSD	15.54145	75.39737	591.3876	10.20692	4.185828	83.70122
#1	-.212921	.0019761	.0005074	-.246854	-.005256	.0006189
#2	-.167221	.0077951	-.000169	-.301342	-.005586	.0000140
#3	-.161815	.0027775	-.000144	-.288368	-.005161	.0005956

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: PB169917BL Acquired: 9/30/2025 22:06:02 Type: Unk
Method: 6010-200.7 NEW(v228) 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	-.005661	-.000191	-.004278	-.000306	.0059047	F -.024655
Stddev	.000655	.002226	.027152	.000489	.0025354	.002538
%RSD	11.56187	1164.863	634.6106	159.7156	42.93937	10.29421
#1	-.006042	.000813	.026958	-.000729	.0040852	-.021734
#2	-.004905	.001356	-.022221	-.000420	.0088008	-.025916
#3	-.006036	-.002742	-.017573	.000230	.0048282	-.026316

Elem	Sr4077
Units	ppm
Avg	-.000221
Stddev	.000248
%RSD	112.0631
#1	-.000004
#2	-.000168
#3	-.000491

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7595.292	93110.91	4888.967	5981.066	9036.404
Stddev	21.301	347.03	19.978	34.438	10.565
%RSD	.2804545	.3727094	.4086414	.5757806	.1169203
#1	7585.862	93127.09	4887.788	5995.303	9040.563
#2	7619.681	93449.56	4909.509	6006.102	9044.257
#3	7580.334	92756.07	4869.604	5941.793	9024.392

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: PB169917BS Acquired: 9/30/2025 22:10:13 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.7486251	1.884118	.8822035	1.898365	.7560506	1.836833
Stddev	.0014364	.050098	.0018401	.004235	.0023910	.015288
%RSD	.1918726	2.658989	.2085845	.2230683	.3162493	.8322788
#1	.7469851	1.939098	.8808342	1.897315	.7587080	1.841434
#2	.7496594	1.841048	.8814811	1.903026	.7553707	1.819774
#3	.7492310	1.872207	.8842952	1.894754	.7540732	1.849292

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1824033	.1894430	.1761989	.9302639	.3676150	.1791760
Stddev	.0044518	.0019848	.0002620	.0038762	.0013254	.0005407
%RSD	2.440629	1.047699	.1486657	.4166818	.3605428	.3017747
#1	.1873493	.1905947	.1763722	.9278739	.3683332	.1794433
#2	.1811434	.1905832	.1758976	.9281815	.3684264	.1795310
#3	.1787173	.1871512	.1763269	.9347363	.3660855	.1785537

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2848430	2.625818	.1901140	1.896946	.4477416	.0670202
Stddev	.0005474	.017774	.0018958	.051447	.0002549	.0003605
%RSD	.1921633	.6768751	.9972014	2.712071	.0569297	.5379237
#1	.2845847	2.605463	.1883922	1.934619	.4474481	.0671684
#2	.2844726	2.633725	.1921456	1.917889	.4478697	.0666092
#3	.2854717	2.638267	.1898041	1.838332	.4479071	.0672830

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2.273144	.2758527	.1842420	F 7.917487	.2649292	.3878976
Stddev	.016405	.0065028	.0004649	.113922	.0041184	.0008438
%RSD	.7217074	2.357341	.2523209	1.438862	1.554529	.2175330
#1	2.279119	.2833601	.1839817	7.829570	.2666573	.3886430
#2	2.285725	.2719716	.1847787	7.876704	.2679020	.3869815
#3	2.254588	.2722265	.1839657	8.046187	.2602283	.3880684

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: PB169917BS Acquired: 9/30/2025 22:10:13 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.6387531	.1813022	F .7458934	5.166883	F .0017423	F .1472432
Stddev	.0010314	.0013991	.0098237	.018521	.0003789	.0053469
%RSD	.1614701	.7716688	1.317042	.3584525	21.74482	3.631318
#1	.6396558	.1814822	.7346511	5.182520	.0015029	.1444323
#2	.6389746	.1798218	.7528240	5.146430	.0021790	.1438881
#3	.6376289	.1826025	.7502050	5.171699	.0015448	.1534093

Elem	Sr4077
Units	ppm
Avg	.1791225
Stddev	.0009135
%RSD	.5099630
#1	.1785612
#2	.1801765
#3	.1786298

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7439.133	91794.60	4873.347	5909.719	8588.629
Stddev	24.540	395.33	61.814	5.505	24.061
%RSD	.3298768	.4306730	1.268418	.0931579	.2801544
#1	7456.592	91884.39	4849.203	5915.958	8602.817
#2	7449.733	91362.09	4827.249	5905.542	8602.222
#3	7411.075	92137.31	4943.590	5907.658	8560.847

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCV09 Acquired: 9/30/2025 22:14:14 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV09 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.943808**	**5.195617**	**4.856222**	**4.966500**	**4.922602**	**9.682095**	**9.955645**
Stddev	.017098	.195618	.012931	.019387	.012891	.046558	.039987
%RSD	.3458416	3.765061	.2662727	.3903587	.2618722	.4808700	.4016512
#1	4.943288	5.072257	4.852350	4.958470	4.920131	9.681704	10.00112
#2	4.926977	5.093427	4.845670	4.952417	4.911126	9.728847	9.92598
#3	4.961160	5.421166	4.870647	4.988611	4.936550	9.635733	9.93983

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2545963**	**2.432497**	**24.60224**	**.9854069**	**2.432758**	**1.223691**	**4.873345**
Stddev	.0022711	.006281	.08452	.0009313	.005958	.003425	.002467
%RSD	.8920434	.2582249	.3435528	.0945076	.2449185	.2799166	.0506247
#1	.2558881	2.430963	24.60361	.9843615	2.432549	1.224874	4.874277
#2	.2559268	2.427125	24.68606	.9861477	2.426908	1.219831	4.870547
#3	.2519739	2.439403	24.51704	.9857116	2.438819	1.226368	4.875210

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.501999**	**24.51303**	**2.432682**	**1.238554**	**23.78373**	**2.478669**	**2.434788**
Stddev	.011060	.09572	.005602	.001050	.24664	.007891	.012008
%RSD	.4420565	.3905040	.2302928	.0847607	1.037006	.3183588	.4931964
#1	2.514393	24.62356	2.432291	1.239732	24.05247	2.479945	2.441053
#2	2.493132	24.45773	2.427285	1.238212	23.56772	2.470218	2.442369
#3	2.498473	24.45780	2.438469	1.237717	23.73101	2.485844	2.420943

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**26.26419**	**5.117030**	**4.931752**	**4.889412**	**4.927612**	**4.699750**	**4.910357**
Stddev	.15094	.040889	.011250	.015632	.019161	.041848	.043871
%RSD	.5747147	.7990839	.2281149	.3197067	.3888459	.8904311	.8934377
#1	26.31166	5.131673	4.930612	4.885809	4.948967	4.678445	4.879980
#2	26.09522	5.148582	4.921115	4.875897	4.911923	4.672841	4.890438
#3	26.38570	5.070835	4.943528	4.906531	4.921945	4.747964	4.960654

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCV09 Acquired: 9/30/2025 22:14:14 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV09 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.952891**	**4.593206**	**4.938334**
Stddev	.054870	.017253	.049113
%RSD	1.107836	.3756139	.9945264
#1	4.915534	4.612174	4.909422
#2	4.927251	4.578447	4.910538
#3	5.015887	4.588997	4.995041

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7180.783**	**85165.45**	**4751.617**	**5630.865**	**7904.339**
Stddev	15.745	483.11	18.146	17.162	20.269
%RSD	.2192709	.5672631	.3818864	.3047776	.2564319
#1	7197.090	85172.70	4732.188	5611.880	7925.370
#2	7179.594	85644.89	4754.536	5645.277	7902.719
#3	7165.666	84678.75	4768.126	5635.439	7884.929

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCB09 Acquired: 9/30/2025 22:18:19 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB09 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001411**	**-.000607**	**-.001534**	**.0078062**	**.0006709**	**.0027498**
Stddev	.001523	.000876	.001545	.0029678	.0018544	.0323436
%RSD	107.9383	144.2013	100.6855	38.01863	276.4161	1176.193
#1	-.000122	.000072	-.003308	.0112271	-.001274	.0232079
#2	-.001019	-.000298	-.000481	.0059185	.000868	.0195802
#3	-.003092	-.001595	-.000814	.0062732	.002419	-.034539

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000502**	**-.000050**	**-.000141**	**-.005976**	**-.000291**	**-.000499**
Stddev	.002975	.000054	.000174	.016551	.000584	.000382
%RSD	592.5590	108.0473	122.7510	276.9500	200.6875	76.52494
#1	.000414	.000009	-.000321	.012875	-.000779	-.000671
#2	-.003827	-.000097	.000026	-.012678	.000356	-.000765
#3	.001907	-.000063	-.000130	-.018126	-.000451	-.000061

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000455**	**-.011774**	**.0003388**	**-.052624**	**.0001393**	**-.000182**
Stddev	.000468	.006571	.0015333	.010468	.0005270	.000353
%RSD	102.7380	55.81152	452.6233	19.89176	378.2820	193.7674
#1	-.000719	-.018495	.0020573	-.064464	-.000108	-.000173
#2	-.000732	-.005362	-.000889	-.044597	.000745	-.000539
#3	.000085	-.011466	-.000152	-.048813	-.000219	.000166

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9752206**	**-.002045**	**.0016638**	F **1.248241**	**-.000413**	**.0001023**
Stddev	.0210447	.006854	.0003807	.072913	.001079	.0001036
%RSD	2.157942	335.1966	22.88257	5.841286	261.1873	101.1825
#1	.9963892	-.008285	.0020814	1.210215	-.000610	.0001126
#2	.9749705	.005292	.0015743	1.202202	-.001381	-.000006
#3	.9543021	-.003141	.0013359	1.332307	.000751	.000200

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCB09 Acquired: 9/30/2025 22:18:19 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB09 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0226551	.0025356	-.001013	.0000754	F .0453790	F .0158345
Stddev	.0001773	.0032319	.031484	.0010677	.0020167	.0015729
%RSD	.7826011	127.4629	3108.127	1416.226	4.444152	9.933406
#1	.0225710	.0062569	-.030070	-.000034	.0467764	.0152714
#2	.0225354	.0009183	.032436	-.000933	.0462936	.0176115
#3	.0228588	.0004316	-.005405	.001194	.0430671	.0146207

Elem	Sr4077
Units	ppm
Avg	-.000127
Stddev	.000337
%RSD	265.9167
#1	-.000076
#2	.000182
#3	-.000486

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7263.828	88356.28	4702.441	5758.089	8566.133
Stddev	22.393	129.60	15.552	32.788	28.947
%RSD	.3082749	.1466769	.3307267	.5694222	.3379274
#1	7289.047	88282.18	4689.818	5764.175	8597.446
#2	7246.276	88280.74	4697.691	5722.685	8540.349
#3	7256.162	88505.93	4719.815	5787.408	8560.604

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3245-08 Acquired: 9/30/2025 22:22:31 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.002127**	**.0008276**	**.0020607**	**.0076553**	**.0018769**	**.0510223**	**.1548045**
Stddev	.002096	.0020017	.0011698	.0021149	.0014220	.0146872	.0024847
%RSD	98.54983	241.8572	56.76749	27.62673	75.76390	28.78594	1.605045
#1	-.000912	.0019007	.0033757	.0100883	.0003099	.0451222	.1547780
#2	-.004548	.0020641	.0011356	.0066213	.0030853	.0402025	.1523332
#3	-.000922	-.001482	.0016709	.0062563	.0022355	.0677421	.1573024

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000226**	**-.000106**	**2.487708**	**.0014719**	**.0003551**	**.0008842**	**.0039099**
Stddev	.000073	.000173	.030808	.0007946	.0004266	.0010017	.0112436
%RSD	32.36216	162.3988	1.238428	53.98370	120.1578	113.2780	287.5659
#1	-.000148	.000023	2.512669	.0007570	.0000020	-.000272	.0167912
#2	-.000293	-.000303	2.453276	.0023274	.0002340	.001478	-.001126
#3	-.000236	-.000039	2.497180	.0013314	.0008291	.001447	-.003935

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0531388**	**.2559640**	**.0055220**	**-.000957**	**244.8878**	**-.005219**	**.0601553**
Stddev	.0022835	.0037364	.0003619	.000761	2.8614	.001869	.0004789
%RSD	4.297265	1.459731	6.554820	79.58039	1.168450	35.81715	.7961771
#1	.0553085	.2582026	.0052225	-.001371	247.4435	-.003219	.0606871
#2	.0507563	.2516506	.0054193	-.000078	241.7964	-.006922	.0600210
#3	.0533518	.2580388	.0059242	-.001421	245.4234	-.005517	.0597579

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2717272**	**.0219925**	**.0004603**	**-.005052**	**-.000174**	**.1438156**	**.0090182**
Stddev	.0237830	.0008443	.0000814	.000806	.003053	.0052756	.0012750
%RSD	8.752525	3.838935	17.67368	15.94470	1759.401	3.668283	14.13795
#1	.2989284	.0210339	.0004643	-.004347	.000228	.1457344	.0078826
#2	.2613983	.0226256	.0005397	-.005930	.002659	.1478633	.0087745
#3	.2548550	.0223178	.0003771	-.004880	-.003408	.1378492	.0103974

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3245-08 Acquired: 9/30/2025 22:22:31 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.2439117	-.023565	.0118074
Stddev	.0034573	.000747	.0002689
%RSD	1.417436	3.170152	2.277133
#1	.2446901	-.023261	.0120871
#2	.2469135	-.024417	.0115509
#3	.2401316	-.023019	.0117843

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7183.671	83147.42	4778.571	5533.898	7748.353
Stddev	16.368	269.79	20.354	32.815	17.682
%RSD	.2278559	.3244759	.4259457	.5929788	.2282012
#1	7165.054	82841.16	4768.278	5497.650	7728.521
#2	7190.159	83349.96	4765.419	5561.581	7754.065
#3	7195.801	83251.15	4802.016	5542.465	7762.472

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3245-16 Acquired: 9/30/2025 22:26:40 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.002815**	**-.001193**	**.0038668**	**.0084449**	**.0036899**	**.0920561**	**.2216430**
Stddev	.002300	.001241	.0014051	.0025478	.0027804	.0289359	.0032666
%RSD	81.69782	104.0562	36.33667	30.16947	75.35207	31.43294	1.473812
#1	-.003945	-.001127	.0038137	.0055113	.0062005	.1217356	.2178711
#2	-.000169	-.002465	.0024890	.0101036	.0007015	.0639260	.2235220
#3	-.004332	.000014	.0052977	.0097197	.0041678	.0905066	.2235360

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000187**	**-.000086**	**.4854744**	**.0004656**	**.0003511**	**.0014138**	**-.002989**
Stddev	.000073	.000060	.0062427	.0002691	.0005290	.0004798	.010382
%RSD	39.30286	69.81060	1.285889	57.79130	150.6731	33.93579	347.3200
#1	-.000105	-.000026	.4862002	.0006704	.0001448	.0019146	-.001157
#2	-.000247	-.000146	.4789005	.0005654	.0009522	.0009583	-.014166
#3	-.000208	-.000087	.4913224	.0001609	-.000044	.0013686	.006355

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0187258**	**.1321563**	**.0010918**	**-.000786**	**267.7093**	**-.001849**	**.1070540**
Stddev	.0008923	.0183741	.0003782	.000505	2.5896	.006717	.0001947
%RSD	4.765295	13.90330	34.64507	64.21445	.9673185	363.3040	.1818842
#1	.0197532	.1467213	.0015195	-.000823	265.0811	-.007366	.1070098
#2	.0181443	.1382343	.0008013	-.000264	267.7883	-.003813	.1068852
#3	.0182799	.1115133	.0009545	-.001272	270.2584	.005631	.1072670

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1840165**	**.0258976**	**.0003439**	**-.005510**	**.0024987**	**.0715062**	**.0079029**
Stddev	.0444497	.0006815	.0003355	.000449	.0011777	.0309822	.0005506
%RSD	24.15526	2.631717	97.56214	8.155756	47.13346	43.32799	6.966642
#1	.2336508	.0266767	.0005867	-.005349	.0023716	.0840882	.0083214
#2	.1478813	.0256040	.0004839	-.006018	.0013896	.0362123	.0081080
#3	.1705173	.0254120	-.000039	-.005164	.0037347	.0942179	.0072792

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3245-16 Acquired: 9/30/2025 22:26:40 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.2833409	-.020207	.0051403
Stddev	.0013108	.001759	.0003049
%RSD	.4626091	8.705571	5.932273
#1	.2819968	-.018191	.0049947
#2	.2846155	-.021434	.0054907
#3	.2834104	-.020995	.0049355

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7257.779	86414.55	4808.108	5674.102	7758.497
Stddev	42.819	311.12	20.915	42.558	45.555
%RSD	.5899739	.3600281	.4350037	.7500383	.5871626
#1	7222.345	86763.35	4784.175	5720.707	7722.497
#2	7245.634	86314.66	4817.265	5664.296	7743.281
#3	7305.359	86165.65	4822.882	5637.303	7809.712

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3245-24 Acquired: 9/30/2025 22:30:49 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.000131**	**-.000817**	**.0110535**	**.0084889**	**.0031738**	**.0754884**	**.4115841**
Stddev	.000800	.002176	.0017533	.0012206	.0004127	.0297770	.0017625
%RSD	611.6489	266.4817	15.86215	14.37858	13.00480	39.44581	.4282200
#1	-.000533	-.001095	.0108687	.0095173	.0031523	.0503871	.4129063
#2	.000791	-.002841	.0093999	.0071401	.0035969	.0676892	.4095832
#3	-.000651	.001485	.0128919	.0088094	.0027722	.1083888	.4122629

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000112**	**.0002720**	**3.397751**	**.0006114**	**.0000285**	**.0011740**	**.0173994**
Stddev	.000107	.0000624	.027094	.0004774	.0003317	.0007463	.0181606
%RSD	95.65010	22.94456	.7974093	78.08969	1164.006	63.56820	104.3745
#1	-.000016	.0003067	3.417472	.0006764	-.000354	.0003815	.0074451
#2	-.000228	.0002000	3.366858	.0001048	.000225	.0018635	.0063925
#3	-.000093	.0003094	3.408924	.0010530	.000215	.0012771	.0383607

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0232188**	**.6738417**	**.0021722**	**-.001625**	**444.4612**	**.0040821**	**.2712527**
Stddev	.0007295	.0127442	.0004201	.000976	1.7862	.0042761	.0007000
%RSD	3.141879	1.891279	19.33975	60.06427	.4018770	104.7513	.2580692
#1	.0240076	.6806202	.0023143	-.002310	445.5118	.0089857	.2716583
#2	.0225684	.6591408	.0016995	-.000507	445.4729	.0021318	.2704443
#3	.0230803	.6817642	.0025029	-.002059	442.3988	.0011289	.2716553

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.308303**	**.0480265**	**.0008843**	**-.004976**	**.0016938**	**.0895532**	**.0188000**
Stddev	.103892	.0008462	.0003117	.000288	.0007157	.0194856	.0003259
%RSD	7.941007	1.762007	35.24484	5.791771	42.25265	21.75870	1.733790
#1	1.192826	.0478886	.0005299	-.005130	.0016579	.0675295	.0189123
#2	1.394191	.0489332	.0011155	-.005154	.0009967	.1045532	.0190550
#3	1.337892	.0472576	.0010076	-.004643	.0024267	.0965769	.0184328

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3245-24 Acquired: 9/30/2025 22:30:49 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.4455059	-.016268	.0171877
Stddev	.0027738	.002862	.0000856
%RSD	.6226228	17.59526	.4979262
#1	.4428180	-.013336	.0171925
#2	.4483583	-.019055	.0170999
#3	.4453414	-.016413	.0172708

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7210.570	83708.79	4833.223	5577.743	7663.259
Stddev	13.510	362.08	28.505	33.910	8.952
%RSD	.1873578	.4325446	.5897690	.6079451	.1168212
#1	7213.601	83297.77	4864.621	5561.661	7659.141
#2	7222.307	83847.97	4826.078	5616.701	7673.530
#3	7195.803	83980.62	4808.971	5554.866	7657.108

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3245-24DUP Acquired: 9/30/2025 22:35:06 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.003321**	**-.000301**	**.0123659**	**.0074484**	**.0035533**	**.0949626**	**.4525480**
Stddev	.001125	.003160	.0013583	.0026885	.0024056	.0188763	.0036860
%RSD	33.87137	1051.054	10.98390	36.09460	67.70003	19.87761	.8144999
#1	-.002091	.001202	.0121477	.0057801	.0040970	.0865389	.4496992
#2	-.003575	-.003932	.0111299	.0105498	.0009224	.0817648	.4567110
#3	-.004298	.001828	.0138200	.0060154	.0056405	.1165841	.4512338

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000072**	**.0001428**	**3.734911**	**.0009374**	**.0003742**	**.0006124**	**.0175317**
Stddev	.000011	.0000509	.032340	.0008643	.0002032	.0004893	.0130915
%RSD	15.42095	35.64959	.8658769	92.19577	54.30305	79.89918	74.67341
#1	-.000067	.0001456	3.724034	.0008640	.0005860	.0010723	.0305868
#2	-.000084	.0000905	3.709412	.0018360	.0003557	.0006667	.0176043
#3	-.000064	.0001922	3.771287	.0001122	.0001809	.0000982	.0044040

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0254794**	**.7712947**	**.0025730**	**-.001051**	**474.9695**	**-.002903**	**.2945315**
Stddev	.0007634	.0311358	.0002477	.000665	4.4117	.005405	.0018440
%RSD	2.996295	4.036819	9.628132	63.21762	.9288283	186.1797	.6260938
#1	.0254081	.7493700	.0022965	-.000467	470.2397	-.008108	.2964543
#2	.0247541	.8069333	.0027749	-.001774	475.6960	-.003284	.2927779
#3	.0262760	.7575808	.0026475	-.000913	478.9728	.002682	.2943625

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.657363**	**.0553445**	**.0002662**	**-.004425**	**.0000515**	**.1054479**	**.0205214**
Stddev	.094906	.0011876	.0002068	.000936	.0003727	.0314551	.0019042
%RSD	5.726343	2.145853	77.68618	21.15230	723.2152	29.82998	9.279303
#1	1.605252	.0552755	.0000348	-.005505	.0002537	.0712722	.0226794
#2	1.599929	.0565651	.0004328	-.003906	-.000379	.1118848	.0198080
#3	1.766908	.0541929	.0003310	-.003863	.000279	.1331866	.0190770

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3245-24DUP Acquired: 9/30/2025 22:35:06 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.4927265	-.024676	.0189200
Stddev	.0036225	.000966	.0002362
%RSD	.7351879	3.915452	1.248600
#1	.4898763	-.024333	.0186924
#2	.4915003	-.025766	.0189034
#3	.4968030	-.023928	.0191640

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7257.546	84902.96	4801.815	5691.384	7690.017
Stddev	21.527	306.05	42.647	30.635	23.708
%RSD	.2966105	.3604728	.8881380	.5382760	.3082894
#1	7282.318	84555.68	4788.685	5656.233	7717.369
#2	7246.934	85133.31	4767.277	5705.520	7675.363
#3	7243.386	85019.89	4849.483	5712.400	7677.319

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3245-24LX5 Acquired: 9/30/2025 22:39:23 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**-.001231**	**-.000122**	**.0020091**	**.0061042**	**.0020284**	**.0473003**	**.0890951**
Stddev	.001881	.000623	.0017630	.0017205	.0004557	.0086038	.0018903
%RSD	152.8690	511.1775	87.74680	28.18527	22.46805	18.18983	2.121656
#1	-.000065	.000362	.0040214	.0078663	.0015892	.0437962	.0869224
#2	-.003401	.000097	.0007363	.0044285	.0024991	.0571032	.0900005
#3	-.000226	-.000824	.0012697	.0060179	.0019970	.0410014	.0903625

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000230**	**-.000090**	**.7146933**	**-.000263**	**-.000501**	**.0002891**	**-.001983**
Stddev	.000039	.000029	.0072187	.000239	.000486	.0003681	.012135
%RSD	16.73885	32.46849	1.010039	91.01116	96.98247	127.3195	612.0481
#1	-.000215	-.000113	.7214755	.000007	-.000958	.0003727	.004382
#2	-.000274	-.000057	.7154987	-.000447	.000010	.0006082	-.015976
#3	-.000202	-.000100	.7071057	-.000349	-.000555	-.000114	.005646

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0050341**	**.0998447**	**.0004335**	**-.000700**	**89.31897**	**-.002138**	**.0550467**
Stddev	.0005085	.0690416	.0002833	.000656	.40943	.004937	.0003190
%RSD	10.10136	69.14894	65.35393	93.64238	.4583947	230.8973	.5795082
#1	.0047921	.0256713	.0007420	-.001204	89.55517	-.000032	.0547363
#2	.0056184	.1622389	.0001849	.000041	89.55554	.001396	.0553737
#3	.0046917	.1116239	.0003737	-.000939	88.84619	-.007778	.0550301

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0035588**	**.0074126**	**.0007050**	**-.005993**	**.0006848**	**.0501792**	**.0020972**
Stddev	.0292409	.0002618	.0001879	.001207	.0028599	.0322064	.0021620
%RSD	821.6425	3.531994	26.65207	20.14865	417.6508	64.18276	103.0862
#1	-.001907	.0071157	.0005279	-.007270	.0033111	.0206050	.0034300
#2	-.022563	.0076105	.0009021	-.005838	.0011053	.0454401	-.000397
#3	.035147	.0075117	.0006851	-.004870	-.002362	.0844927	.003259

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3245-24LX5 Acquired: 9/30/2025 22:39:23 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.0965351	-.024794	.0034997
Stddev	.0040475	.002020	.0002572
%RSD	4.192767	8.146450	7.348777
#1	.0930283	-.025788	.0032533
#2	.1009642	-.026124	.0034793
#3	.0956129	-.022470	.0037665

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7410.522	90133.37	4797.778	5952.146	8098.743
Stddev	7.741	355.04	26.437	15.846	5.368
%RSD	.1044616	.3939096	.5510194	.2662201	.0662818
#1	7412.154	89797.96	4771.581	5937.911	8092.674
#2	7417.316	90096.91	4824.448	5949.307	8102.869
#3	7402.095	90505.23	4797.304	5969.219	8100.686

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3245-24MS Acquired: 9/30/2025 22:43:32 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.7885243	2.053998	.9461017	2.036198	.7657138	1.922475	.5605069
Stddev	.0020609	.040966	.0007783	.000776	.0023492	.024920	.0026978
%RSD	.2613617	1.994442	.0822651	.0380994	.3068005	1.296252	.4813152
#1	.7871653	2.093867	.9465816	2.037068	.7647425	1.898863	.5574246
#2	.7875120	2.056111	.9465197	2.035946	.7640060	1.948524	.5616574
#3	.7908956	2.012017	.9452036	2.035579	.7683929	1.920037	.5624387

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1922755	.1956717	4.005479	.3888934	.1951652	.2844740	2.904719
Stddev	.0020181	.0003229	.038359	.0004130	.0004921	.0004192	.004336
%RSD	1.049582	.1650089	.9576566	.1062119	.2521557	.1473431	.1492857
#1	.1899478	.1958879	4.022469	.3884272	.1955561	.2849345	2.903929
#2	.1933457	.1958267	3.961559	.3890392	.1953269	.2841147	2.909396
#3	.1935331	.1953006	4.032408	.3892137	.1946125	.2843728	2.900833

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2122041	2.444662	.4895817	.0699379	393.5420	.2865896	.4346045
Stddev	.0017266	.036130	.0004386	.0006135	3.3276	.0081868	.0005909
%RSD	.8136337	1.477920	.0895845	.8772113	.8455428	2.856642	.1359594
#1	.2102758	2.446653	.4900119	.0700640	396.9740	.2940969	.4348082
#2	.2127299	2.407578	.4895980	.0704786	393.3223	.2778606	.4350666
#3	.2136067	2.479756	.4891352	.0692712	390.3297	.2878115	.4339387

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.67036	.3145167	.4003757	.6960346	.1897338	.9107482	5.981558
Stddev	.12814	.0043517	.0010549	.0010440	.0024704	.0218738	.026611
%RSD	1.200927	1.383599	.2634803	.1499992	1.302036	2.401740	.4448851
#1	10.81390	.3098537	.4015718	.6959736	.1924508	.9268404	5.995367
#2	10.62970	.3184697	.3995779	.6971079	.1876229	.8858426	5.998426
#3	10.56748	.3152268	.3999774	.6950225	.1891275	.9195617	5.950881

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3245-24MS Acquired: 9/30/2025 22:43:32 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.4254951	.1486552	.1973646
Stddev	.0028963	.0063795	.0005809
%RSD	.6806975	4.291441	.2943251
#1	.4245534	.1469857	.1973010
#2	.4287451	.1432765	.1968182
#3	.4231868	.1557034	.1979747

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7246.896	84413.30	4792.752	5634.695	7691.262
Stddev	20.651	552.63	37.701	46.511	18.610
%RSD	.2849589	.6546673	.7866328	.8254336	.2419634
#1	7223.089	84010.89	4828.468	5624.334	7670.287
#2	7259.965	84185.60	4753.338	5594.238	7697.704
#3	7257.635	85043.39	4796.450	5685.512	7705.795

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3245-24MSD Acquired: 9/30/2025 22:47:41 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.8067591	2.005543	.9601157	2.066882	.7902792	1.922020	.4507527
Stddev	.0054168	.038710	.0023505	.006954	.0019287	.022261	.0011181
%RSD	.6714249	1.930175	.2448109	.3364274	.2440583	1.158205	.2480402
#1	.8106816	2.048807	.9623471	2.074217	.7914068	1.937884	.4515036
#2	.8005786	1.974180	.9576620	2.066043	.7880521	1.896572	.4494677
#3	.8090171	1.993642	.9603382	2.060386	.7913785	1.931604	.4512867

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1958119	.1987557	3.092572	.3911015	.1976411	.2917644	2.841854
Stddev	.0007269	.0001714	.013246	.0013299	.0004958	.0004684	.024391
%RSD	.3712496	.0862360	.4283172	.3400490	.2508463	.1605520	.8582645
#1	.1961614	.1989532	3.088975	.3909099	.1971254	.2912667	2.818665
#2	.1962982	.1986458	3.081495	.3898777	.1976839	.2921967	2.839607
#3	.1949763	.1986682	3.107245	.3925168	.1981141	.2918297	2.867291

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2086635	2.240439	.4965204	.0701107	278.7672	.2872249	.3670445
Stddev	.0015817	.003237	.0001198	.0004683	2.5049	.0049141	.0016774
%RSD	.7580243	.1444794	.0241253	.6678738	.8985476	1.710894	.4569960
#1	.2085634	2.239108	.4966579	.0695740	276.5751	.2833509	.3685029
#2	.2071342	2.244129	.4964648	.0703220	278.2292	.2927526	.3652115
#3	.2102929	2.238079	.4964385	.0704361	281.4973	.2855714	.3674192

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.03118	.3061076	.4107461	.7167325	.1898055	.8333099	6.019374
Stddev	.05714	.0021330	.0007300	.0008579	.0026580	.0358442	.031848
%RSD	.5696163	.6968060	.1777145	.1196944	1.400394	4.301420	.5290875
#1	10.00352	.3084047	.4104922	.7171013	.1869435	.8254038	6.030683
#2	9.99314	.3041896	.4101770	.7173443	.1902762	.8724471	5.983415
#3	10.09689	.3057284	.4115691	.7157519	.1921967	.8020788	6.044023

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3245-24MSD Acquired: 9/30/2025 22:47:41 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.3226733	.1489474	.1947240
Stddev	.0033845	.0033664	.0012122
%RSD	1.048882	2.260151	.6225154
#1	.3245727	.1455290	.1933244
#2	.3246813	.1522593	.1954391
#3	.3187657	.1490540	.1954085

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7320.432	87953.57	4870.994	5781.931	7807.048
Stddev	57.576	683.02	22.733	67.919	49.662
%RSD	.7865058	.7765633	.4666973	1.174683	.6361183
#1	7371.610	87568.77	4848.718	5785.786	7850.493
#2	7331.593	88742.18	4894.158	5847.841	7817.740
#3	7258.093	87549.77	4870.106	5712.167	7752.911

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3245-24A Acquired: 9/30/2025 22:51:41 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.6628831**	**1.526770**	**.8009035**	**1.696750**	**.2806373**	**.6574754**	**.4675530**
Stddev	.1082584	.192374	.1303024	.268017	.0787540	.1448556	.0112067
%RSD	16.33145	12.60005	16.26942	15.79591	28.06256	22.03209	2.396891
#1	.5527175	1.320789	.6693811	1.428554	.2040824	.5509131	.4640051
#2	.6668039	1.557743	.8033787	1.697109	.2764093	.5991032	.4585495
#3	.7691278	1.701778	.9299506	1.964588	.3614201	.8224100	.4801042

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0994060**	**.1667351**	**3.660383**	**.1975861**	**.1652571**	**.2429051**	**.9026967**
Stddev	.0109045	.0280218	.061422	.0222429	.0280533	.0415974	.2180682
%RSD	10.96964	16.80615	1.678017	11.25734	16.97555	17.12494	24.15742
#1	.0889675	.1385589	3.594216	.1752243	.1370709	.2009451	.6966205
#2	.0985274	.1670465	3.671349	.1978258	.1655248	.2436403	.8804224
#3	.1107232	.1945998	3.715583	.2197082	.1931756	.2841301	1.131047

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0844464**	**1.256896**	**.4168586**	**.0373413**	**432.2293**	**.0946556**	**.3652120**
Stddev	.0127046	.125846	.0701174	.0030565	1.5248	.0187060	.0113461
%RSD	15.04455	10.01243	16.82043	8.185311	.3527851	19.76217	3.106714
#1	.0734354	1.193530	.3468545	.0339327	433.8683	.0762532	.3541705
#2	.0815570	1.175329	.4166325	.0382528	431.9667	.0940624	.3646254
#3	.0983468	1.401830	.4870888	.0398384	430.8528	.1136511	.3768400

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.322558**	**.1877899**	**.1400152**	**.2402922**	**.0170238**	**.1810995**	**5.084281**
Stddev	.557082	.0151106	.0408658	.0741990	.0053573	.0337325	.804844
%RSD	10.46644	8.046556	29.18668	30.87865	31.46937	18.62651	15.83004
#1	4.783517	.1732231	.0999586	.1677706	.0138364	.1437577	4.262859
#2	5.288078	.1867555	.1384423	.2370440	.0140262	.1901749	5.118529
#3	5.896080	.2033911	.1816447	.3160619	.0232089	.2093660	5.871454

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: Q3245-24A Acquired: 9/30/2025 22:51:41 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.4366344	.0363778	.0766585
Stddev	.0040182	.0098872	.0130490
%RSD	.9202661	27.17917	17.02224
#1	.4377065	.0266091	.0646001
#2	.4400078	.0361450	.0748633
#3	.4321889	.0463793	.0905122

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7278.890	85395.34	4859.894	5701.318	7695.071
Stddev	11.411	211.02	45.346	16.777	20.381
%RSD	.1567623	.2471120	.9330749	.2942706	.2648525
#1	7274.133	85638.78	4848.367	5716.051	7677.531
#2	7270.628	85282.80	4909.891	5704.847	7690.252
#3	7291.910	85264.45	4821.424	5683.057	7717.429

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: PB169900TB Acquired: 9/30/2025 22:55:50 Type: Unk
Method: 6010-200.7 NEW(v228) 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	**.0002658**	**-.001090**	**-.000307**	**.0081104**	**.0009922**	**.0244037**	**.0008183**
Stddev	.0015361	.004075	.000471	.0031361	.0007137	.0170508	.0043197
%RSD	577.8121	373.8105	153.2306	38.66776	71.93243	69.86949	527.8701
#1	-.000758	.003514	-.000555	.0046295	.0018011	.0071549	-.003963
#2	.002032	-.004235	.000236	.0089860	.0004513	.0248071	.004440
#3	-.000476	-.002549	-.000603	.0107156	.0007242	.0412493	.001978

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000176**	**-.000220**	**.0388781**	**.0005318**	**-.000379**	**.0010051**	**-.015400**
Stddev	.000013	.000024	.0232203	.0004809	.000110	.0008987	.007192
%RSD	7.344625	10.85420	59.72595	90.43560	29.05547	89.41841	46.70188
#1	-.000190	-.000228	.0489895	.0010870	-.000416	.0009595	-.007211
#2	-.000165	-.000239	.0123165	.0002499	-.000465	.0001300	-.018297
#3	-.000172	-.000193	.0553283	.0002584	-.000255	.0019258	-.020692

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0030635**	**-.060490**	**.0010721**	**-.000780**	**333.5008**	**.0014107**	**.0019498**
Stddev	.0002950	.038212	.0002011	.000755	1.6354	.0074820	.0002732
%RSD	9.628734	63.17032	18.76030	96.88033	.4903607	530.3651	14.01242
#1	.0033071	-.066171	.0009068	-.000546	331.6265	-.007202	.0019605
#2	.0027355	-.095544	.0012960	-.000169	334.2387	.005128	.0022174
#3	.0031479	-.019756	.0010134	-.001624	334.6371	.006306	.0016713

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4631467**	**-.002946**	**.0004514**	**-.004841**	**-.002904**	**.0120869**	**.0062052**
Stddev	.0793975	.000418	.0005604	.001067	.004423	.0177679	.0005386
%RSD	17.14306	14.19584	124.1580	22.03914	152.3243	147.0004	8.680165
#1	.4074429	-.002551	.0005712	-.005990	-.003016	.0290252	.0066663
#2	.4279368	-.002904	-.000159	-.004651	.001574	-.006408	.0063361
#3	.5540603	-.003384	.000942	-.003882	-.007270	.013644	.0056132

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: PB169900TB Acquired: 9/30/2025 22:55:50 Type: Unk
Method: 6010-200.7 NEW(v228) 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	.0749177	-.019445	-.000051
Stddev	.0024422	.003133	.000166
%RSD	3.259791	16.11009	328.2652
#1	.0738660	-.015828	.000140
#2	.0731776	-.021221	-.000123
#3	.0777095	-.021287	-.000168

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7239.189	85413.33	4800.829	5679.000	7702.480
Stddev	21.835	435.70	24.941	27.195	23.064
%RSD	.3016253	.5101049	.5195069	.4788724	.2994310
#1	7236.300	85914.67	4786.816	5694.567	7702.441
#2	7262.325	85126.22	4786.047	5647.598	7725.563
#3	7218.942	85199.10	4829.625	5694.835	7679.436

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCV10 Acquired: 9/30/2025 23:00:01 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV10 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.083395**	**5.377486**	**4.995375**	**5.126958**	**5.021752**	**9.734559**	**10.06858**
Stddev	.004291	.114333	.010652	.013813	.007531	.081203	.02972
%RSD	.0844055	2.126146	.2132328	.2694172	.1499626	.8341725	.2951291
#1	5.082517	5.378224	4.983099	5.125855	5.014749	9.747830	10.05869
#2	5.079611	5.262786	5.002170	5.113730	5.020790	9.808309	10.04507
#3	5.088056	5.491448	5.000857	5.141289	5.029718	9.647538	10.10198

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2593813**	**2.505643**	**24.78305**	**.9935900**	**2.492327**	**1.254195**	**4.835070**
Stddev	.0015949	.004417	.08358	.0011495	.004717	.001260	.049716
%RSD	.6149015	.1762978	.3372667	.1156914	.1892581	.1004370	1.028227
#1	.2589442	2.501922	24.73868	.9922679	2.488793	1.254417	4.833140
#2	.2611492	2.504483	24.87947	.9941493	2.490505	1.252839	4.786348
#3	.2580505	2.510525	24.73101	.9943529	2.497683	1.255328	4.885723

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.527541**	**24.70929**	**2.500073**	**1.245835**	**25.95583**	**2.495100**	**2.452282**
Stddev	.004376	.09375	.004100	.002152	.16018	.016767	.004402
%RSD	.1731173	.3794086	.1640052	.1727381	.6171376	.6720157	.1795123
#1	2.525537	24.70953	2.496829	1.243418	26.14057	2.509696	2.455963
#2	2.524527	24.80292	2.498708	1.247543	25.87140	2.498819	2.447405
#3	2.532560	24.61542	2.504681	1.246543	25.85553	2.476786	2.453478

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**27.13070**	**5.216517**	**4.973287**	**5.038127**	**4.992989**	**4.634495**	**5.080889**
Stddev	.16658	.033189	.004434	.007857	.009652	.025343	.017974
%RSD	.6139801	.6362249	.0891615	.1559498	.1933208	.5468337	.3537544
#1	27.15869	5.216631	4.970321	5.042024	5.003747	4.620126	5.080328
#2	26.95190	5.249649	4.971157	5.029083	4.985087	4.619602	5.063203
#3	27.28151	5.183272	4.978385	5.043274	4.990131	4.663757	5.099137

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCV10 Acquired: 9/30/2025 23:00:01 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV10 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.174095**	**4.683108**	**4.981965**
Stddev	.030385	.002792	.028033
%RSD	.5872598	.0596177	.5626978
#1	5.163530	4.684169	5.007795
#2	5.150401	4.679941	4.985945
#3	5.208352	4.685213	4.952154

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7230.187**	**86954.51**	**4774.230**	**5738.246**	**7887.861**
Stddev	9.898	157.19	23.779	22.011	10.387
%RSD	.1368984	.1807670	.4980630	.3835794	.1316854
#1	7230.136	86973.76	4774.735	5746.089	7887.350
#2	7220.315	87101.18	4750.203	5755.261	7877.739
#3	7240.111	86788.59	4797.752	5713.388	7898.494

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCB10 Acquired: 9/30/2025 23:04:06 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB10 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010388**	**-.000572**	**-.000906**	**.0040529**	**.0009570**	**.0187851**
Stddev	.0030241	.001287	.002766	.0014193	.0007106	.0082380
%RSD	291.1166	225.1078	305.2735	35.01857	74.25064	43.85354
#1	.0019680	-.000831	-.003422	.0034640	.0007294	.0276520
#2	.0034892	-.001709	.002056	.0030229	.0017535	.0173345
#3	-.002341	.000825	-.001352	.0056718	.0003881	.0113689

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.004287**	**-.000085**	**.0000351**	**.0013964**	**-.000538**	**-.000278**
Stddev	.003600	.000047	.0001231	.0046999	.000327	.000361
%RSD	83.97769	54.69725	350.5656	336.5744	60.85308	130.0818
#1	-.006793	-.000101	.0000862	-.000315	-.000245	-.000558
#2	-.000162	-.000033	.0001245	-.002208	-.000891	-.000405
#3	-.005907	-.000122	-.000105	.006712	-.000478	.000130

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000072**	**-.002795**	**-.001005**	**-.063996**	**-.000050**	**-.000229**
Stddev	.000307	.017422	.001192	.042794	.000435	.000257
%RSD	426.0851	623.3601	118.5512	66.86968	877.5410	112.2880
#1	.000271	-.018783	-.001652	-.027821	-.000448	.000058
#2	-.000321	.015773	.000370	-.052931	.000414	-.000307
#3	-.000167	-.005374	-.001734	-.111235	-.000115	-.000438

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **2.172785**	**.0054693**	**-.000397**	F **1.665330**	**-.001610**	**.0001017**
Stddev	.074348	.0033663	.000495	.088043	.001663	.0001510
%RSD	3.421789	61.54885	124.8025	5.286834	103.3090	148.5237
#1	2.256807	.0055128	-.000709	1.646608	.000303	.0002571
#2	2.146036	.0088135	.000174	1.761229	-.002415	-.000044
#3	2.115513	.0020814	-.000657	1.588154	-.002717	.000092

Reviewed By:jaswal
On:10/1/2025 3:34:13 PM
Inst Id :P4
LB :LB137374

Sample Name: CCB10 Acquired: 9/30/2025 23:04:06 Type: Unk
Method: 6010-200.7 NEW(v228) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB10 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .0228310	-.000076	.0117085	-.000018	F .0322843	F .0344537
Stddev	.0006412	.002068	.0085383	.001364	.0009016	.0057875
%RSD	2.808399	2718.157	72.92393	7471.315	2.792797	16.79783
#1	.0223719	.000610	.0022492	.001554	.0323081	.0381192
#2	.0225574	-.002400	.0140310	-.000734	.0331738	.0374601
#3	.0235635	.001562	.0188452	-.000875	.0313710	.0277817

Elem	Sr4077
Units	ppm
Avg	.0000617
Stddev	.0003383
%RSD	547.9076
#1	.0000724
#2	.0003945
#3	-.000282

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7501.649	92420.90	4944.542	5935.764	8820.836
Stddev	16.321	289.54	45.862	10.104	15.660
%RSD	.2175683	.3132826	.9275321	.1702252	.1775372
#1	7511.877	92129.65	4894.508	5929.775	8833.424
#2	7510.243	92424.34	4984.585	5930.087	8825.784
#3	7482.826	92708.70	4954.533	5947.430	8803.299

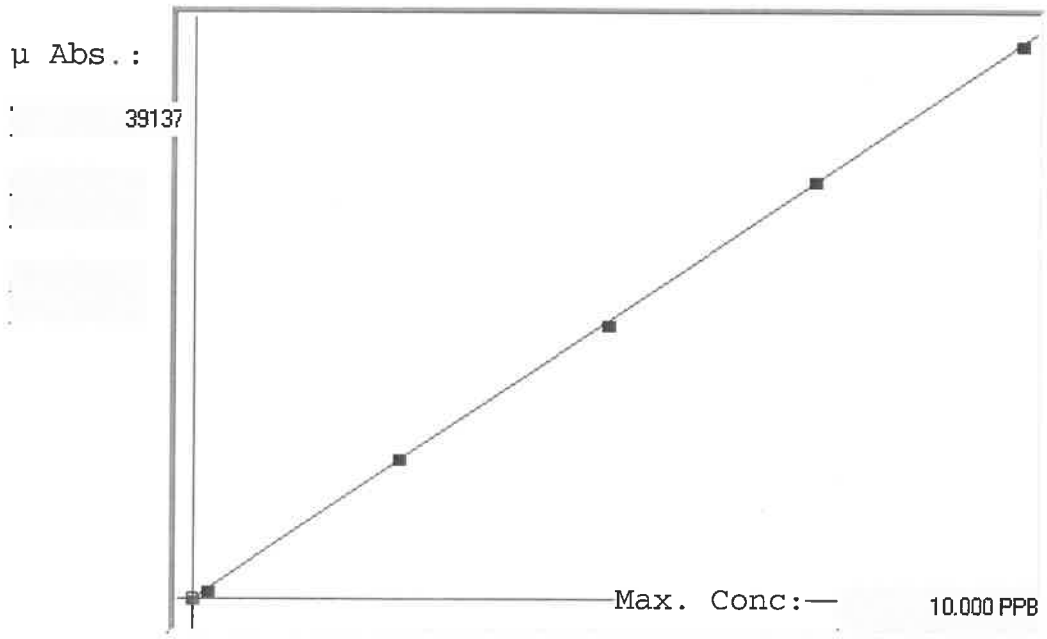
Reviewed By:jaswal
On:10/1/2025 3:41:34 PM
Inst Id :CV1
LB :LB137359

LB137359

7471B
~~7470A~~

Instrument ID: CV1

Linear



A= 0.0000e+000

B= 2.5478e-004

C= 4.6722e-003

Rho= 0.9999608

Accept=Accepted

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0.0	0.000	0.012	0.012	29	0.000	29	0			
0.2	0.200	0.167	-0.033	638	0.0 %	638	0			
2.5	2.500	2.537	0.037	9940	0.0 %	9940	0			
5.0	5.000	4.964	-0.036	19464	0.0 %	19464				
7.5	7.500	7.544	0.044	29590	0.0 %	29590				
10.0	10.000	9.976	-0.024	39137	0.0 %	39137				

Reviewed By:jaswal
On:10/1/2025 3:41:34 PM
Inst Id :CV1
LB :LB137359

LB137359 INSTRUMENT ID : CV1

Method: 7470A Operator: Admin Date of Analysis: 30 Sep 2025 09:20:56

Type	Sample ID	Extended ID	Conc.	µ Abs.	Units	Type	Stnd Conc	Method	Date
S	0.0 - 1	S0	-	29	PPB	Std	0.0000	7470A	30 Sep 2025 09:32:19
S	0.2 - 1	S0.2	-	638	PPB	Std	0.2000	7470A	30 Sep 2025 09:34:36
S	2.5 - 1	S2.5	-	9940	PPB	Std	2.5000	7470A	30 Sep 2025 09:36:53
S	5.0 - 1	S5	-	19464	PPB	Std	5.0000	7470A	30 Sep 2025 09:39:10
S	7.5 - 1	S7.5	-	29590	PPB	Std	7.5000	7470A	30 Sep 2025 09:41:29
S	10.0 - 1	S10	-	39137	PPB	Std	10.0000	7470A	30 Sep 2025 09:43:48
U	ICV51 - 1	ICV51	4.0216	15766	PPB	SMPL		7470A	30 Sep 2025 09:46:51
U	ICB51 - 1	ICB51	-0.0776	-323	PPB	SMPL		7470A	30 Sep 2025 09:49:06
U	CCV57 - 1	CCV57	5.0277	19715	PPB	SMPL		7470A	30 Sep 2025 09:51:25
U	CCB57 - 1	CCB57	-0.0725	-303	PPB	SMPL		7470A	30 Sep 2025 09:53:40
U	CRA - 1	CRA	0.1659	633	PPB	SMPL		7470A	30 Sep 2025 09:55:58
U	HighStd - 1	HighStd	10.1236	39716	PPB	SMPL		7470A	30 Sep 2025 09:58:14
U	ChkStd - 1	ChkStd	6.5839	25823	PPB	SMPL		7470A	30 Sep 2025 10:00:29
U	PB169897BL - 1	PBS	-0.0901	-372	PPB	SMPL		7470A	30 Sep 2025 10:02:55
U	PB169897BS - 1	LCSS	4.3309	16980	PPB	SMPL		7470A	30 Sep 2025 10:05:19
U	Q3215-01 - 1	WASTE	1.0248	4004	PPB	SMPL		7470A	30 Sep 2025 10:07:35
U	Q3220-01 - 1	OR-03-092625	0.3807	1476	PPB	SMPL		7470A	30 Sep 2025 10:09:55
U	Q3221-01 - 1	HD-01-092625	0.3051	1179	PPB	SMPL		7470A	30 Sep 2025 10:12:14
U	Q3222-01 - 1	SU-03-092625	0.3000	1159	PPB	SMPL		7470A	30 Sep 2025 10:14:31
U	Q3230-01 - 1	WALL-PROBE-BRICK-1	0.1068	401	PPB	SMPL		7470A	30 Sep 2025 10:16:56
U	CCV58 - 1	CCV58	4.9666	19475	PPB	SMPL		7470A	30 Sep 2025 10:19:12
U	CCB58 - 1	CCB58	-0.0463	-200	PPB	SMPL		7470A	30 Sep 2025 10:21:38
U	Q3231-01 - 1	WC-1	18.0162	70694	PPB	SMPL		7470A	30 Sep 2025 10:24:08
U	Q3231-01DUP - 1	WC-1DUP	17.8606	70083	PPB	SMPL		7470A	30 Sep 2025 10:30:23
U	Q3231-01MS - 1	WC-1MS	25.6251	100558	PPB	SMPL		7470A	30 Sep 2025 10:32:40
U	Q3231-01MSD - 1	WC-1MSD	26.0049	102049	PPB	SMPL		7470A	30 Sep 2025 10:35:15
U	Q3231-05 - 1	WC-2	9.6844	37992	PPB	SMPL		7470A	30 Sep 2025 10:37:56
U	Q3231-09 - 1	WC-3	2.0195	7908	PPB	SMPL		7470A	30 Sep 2025 10:40:37
U	Q3231-13 - 1	WC-4	2.6366	10330	PPB	SMPL		7470A	30 Sep 2025 10:43:05
U	Q3232-01 - 1	CONC-1	1.0467	4090	PPB	SMPL		7470A	30 Sep 2025 10:45:25
U	Q3233-01 - 1	0926-01	0.1191	449	PPB	SMPL		7470A	30 Sep 2025 10:47:45
U	Q3238-01 - 1	RCA	0.2258	868	PPB	SMPL		7470A	30 Sep 2025 10:50:02
U	CCV59 - 1	CCV59	5.0234	19698	PPB	SMPL		7470A	30 Sep 2025 10:52:18
U	CCB59 - 1	CCB59	-0.0501	-215	PPB	SMPL		7470A	30 Sep 2025 10:54:33
U	Q3240-01 - 1	OK-02-092925	0.1030	386	PPB	SMPL		7470A	30 Sep 2025 10:56:52
U	Q3245-01 - 1	13-1	0.0742	273	PPB	SMPL		7470A	30 Sep 2025 10:59:08
U	Q3245-09 - 1	12-8	0.1896	726	PPB	SMPL		7470A	30 Sep 2025 11:01:23
U	Q3245-17 - 1	12-1	0.3807	1476	PPB	SMPL		7470A	30 Sep 2025 11:03:48
U	Q3231-01LX5 - 1		4.1225	16162	PPB	SMPL		7470A	30 Sep 2025 11:06:03
U	Q3231-01A - 1		25.6921	100821	PPB	SMPL		7470A	30 Sep 2025 11:08:26
U	CCV60 - 1	CCV60	4.7643	18681	PPB	SMPL		7470A	30 Sep 2025 11:10:50
U	CCB60 - 1	CCB60	-0.0827	-343	PPB	SMPL		7470A	30 Sep 2025 11:13:32
U	Q3231-01DLX5 - 1		3.6147	14169	PPB	SMPL		7470A	30 Sep 2025 11:15:54
U	Q3231-01DUPDLX5 - 1		3.5474	13905	PPB	SMPL		7470A	30 Sep 2025 11:18:10
U	Q3231-01MSDLX5 - 1		4.8460	19002	PPB	SMPL		7470A	30 Sep 2025 11:20:31
U	Q3231-01MSDDLX5 - 1		4.6993	18426	PPB	SMPL		7470A	30 Sep 2025 11:22:54
U	Q3231-01LDLX525 - 1		0.3919	1520	PPB	SMPL		7470A	30 Sep 2025 11:25:21
U	Q3231-01ADLX5 - 1		5.2004	20393	PPB	SMPL		7470A	30 Sep 2025 11:27:49
U	CCV61 - 1	CCV61	4.9171	19281	PPB	SMPL		7470A	30 Sep 2025 11:35:41
U	CCB61 - 1	CCB61	0.0103	22	PPB	SMPL		7470A	30 Sep 2025 11:40:43

Alliance TECHNICAL GROUP

Soil/Sludge Metals Preparation Sheet

PB169892

SOP ID : M3050B-Digestion-20

SDG No : N/A

Matrix : SOIL

Pippete ID: ICP A

Balance ID : M SC-2

Filter paper ID : N/A

pH Strip ID : N/A

Hood ID : #3

Block ID: 1. HOT BLOCK #2 2. N/A

Start Digest Date: 09/29/2025 **Time :** 10:20 **Temp :** 96 °C

End Digest Date: 09/29/2025 **Time :** 12:25 **Temp :** 96 °C

Digestion tube ID: M6054

Block thermometer ID: MET-DIG. #2

Dig Technician Signature: SLG

Supervisor Signature: jgp

Temp : 1. 96°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
LFS-1	1.00	M6180
LFS-2	1.00	M6181
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	5.00	M6158
1:1 HNO3	10.00	MP85156
30% H2O2	N/A	M6170
Conc. HCL	10.00	M6151
PTFE Boiling Stones	N/A	M5581
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#2 CELL#35 96C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
09/29/25 13:25	SLG met dig	jgp / Metlab
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Soil/Sludge Metals Preparation Sheet

PB169892

Lab Sample ID	Client Sample ID	pH	Initial Weight (g)	Final Vol (ml)	Color Before	Color After	Texture	Artifact	Comment	Prep Pos
PB169892BL	PBS892	N/A	2.00	100	Colorless	Colorless	Fine	No	N/A	1
PB169892BS	LCS892	N/A	2.00	100	Colorless	Colorless	Fine	No	M6180,M6181	2
Q3215-01	WASTE	N/A	2.22	100	Brown	Yellow	Medium	No	N/A	3
Q3220-01	OR-03-092625	N/A	2.32	100	Brown	Yellow	Medium	No	N/A	4
Q3221-01	HD-01-092625	N/A	2.34	100	Brown	Yellow	Medium	No	N/A	5
Q3222-01	SU-03-092625	N/A	2.28	100	Brown	Yellow	Medium	No	N/A	6
Q3230-01	WALL-PROBE-BRICK-1	N/A	2.30	100	Brown	Yellow	Medium	No	N/A	7
Q3231-01	WC-1	N/A	2.32	100	Brown	Yellow	Medium	No	N/A	8
Q3231-01MS	WC-1MS	N/A	2.20	100	Brown	Yellow	Medium	No	M6180,M6181	10
Q3231-01MSD	WC-1MSD	N/A	2.26	100	Brown	Yellow	Medium	No	M6180,M6181	11
Q3231-01DUP	WC-1DUP	N/A	2.30	100	Brown	Yellow	Medium	No	N/A	9
Q3231-05	WC-2	N/A	2.26	100	Brown	Yellow	Medium	No	N/A	12
Q3231-09	WC-3	N/A	2.30	100	Brown	Yellow	Medium	No	N/A	13
Q3231-13	WC-4	N/A	2.26	100	Brown	Yellow	Medium	No	N/A	14
Q3232-01	CONC-1	N/A	2.36	100	Brown	Yellow	Medium	No	N/A	15
Q3233-01	0926-01	N/A	2.47	100	Brown	Yellow	Medium	No	N/A	16

WORKLIST(Hardcopy Internal Chain)

WorkList Name : PB169892 **WorkList ID :** 192140 **Department :** Digestion **Date :** 09-29-2025 09:48:25

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3215-01	WASTE	Solid	Metals ICP-RCRA	Cool 4 deg C	SCIA01		09/25/2025	6010D
Q3220-01	OR-03-092625	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG05	D31	09/26/2025	6010D
Q3221-01	HD-01-092625	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG05	D31	09/26/2025	6010D
Q3222-01	SU-03-092625	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG05	D31	09/26/2025	6010D
Q3230-01	WALL-PROBE-BRICK-1	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG05	D31	09/26/2025	6010D
Q3231-01	WC-1	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG03	D31	09/26/2025	6010D
Q3231-05	WC-2	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG03	D31	09/26/2025	6010D
Q3231-09	WC-3	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG03	D31	09/26/2025	6010D
Q3231-13	WC-4	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG03	D31	09/26/2025	6010D
Q3232-01	CONC-1	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG03	D31	09/26/2025	6010D
Q3233-01	0926-01	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG03	D31	09/26/2025	6010D

Date/Time 09/29/25 10:05
Raw Sample Received by: SRS metals
Raw Sample Relinquished by: CAPCOM

Date/Time 09/29/25 11:05
Raw Sample Received by: CAPCOM
Raw Sample Relinquished by: SRS metals

Alliance TECHNICAL GROUP

Soil/Sludge Mercury Preparation Sheet

PB169897

SOP ID : M7471B-Mercury-19

SDG No : N/A

Matrix : SOIL

Pippete ID: HG A

Balance ID : M SC-3

Filter paper ID : N/A

pH Strip ID : N/A

Hood ID : #1

Block ID: 1. HG HOT BLOCK#3 2. N/A

Start Digest Date: 09/29/2025 **Time :** 16:00 **Temp :** 95 °C

End Digest Date: 09/29/2025 **Time :** 16:30 **Temp :** 95 °C

Digestion tube ID: M5595

Block thermometer ID: HG-DIG#3

Dig Technician Signature: MB

Supervisor Signature: JL

Temp : 1. 95°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
ICV	30mL	MP87378
CCV	30mL	MP87380
CRA	30mL	MP87382
Blank Spike	0.48mL	MP87371
Matrix Spike	0.48mL	MP87371

Chemical Used	ML/SAMPLE USED	Lot Number
AQUA REGIA	1.5Ml	MP87384
KMnO4 (5%)	4.5mL	MP87072
Hydroxylamine HCL (12%)	2.0Ml	MP87149
PTFE Boiling Stones	--------	M5582
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

LAB SAMPLE ID	CLIENT SAMPLE ID	Wt(g)/Vol(ml)	Comment
0.0 ppb	S0	30mL	MP87372
0.05 ppb	S0.05	N/A	N/A
0.2 ppb	S0.2	30mL	MP87373
2.5 ppb	S2.5	30mL	MP87374
5.0 ppb	S5.0	30mL	MP87375
7.5 ppb	S7.5	30mL	MP87376
10.0 ppb	S10.0	30mL	MP87377
ICV	ICV	30mL	MP87378
ICB	ICB	30mL	MP87379
CCV	CCV	30mL	MP87380
CCB	CCB	30mL	MP87381
CRI	CRI	30mL	MP87382
CHK STD	CHK STD	30mL	MP87383

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
9/29/25 @ 17:00	MB - 3119 - Lab	MB Manual Log
	Preparation Group	**Analysis Group**

Alliance TECHNICAL GROUP

Soil/Sludge Mercury Preparation Sheet

PB169897

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Comment	Prep Pos
PB169897BL	PBS897	0.52	35	NA	N/A	3-1
PB169897BS	LCS897	0.57	35	NA	MP87371	2
Q3215-01	WASTE	0.54	35	NA	N/A	3
Q3220-01	OR-03-092625	0.56	35	NA	N/A	4
Q3221-01	HD-01-092625	0.59	35	NA	N/A	5
Q3222-01	SU-03-092625	0.53	35	NA	N/A	6
Q3230-01	WALL-PROBE-BRICK-1	0.50	35	NA	N/A	7
Q3231-01	WC-1	0.56	35	NA	N/A	8
Q3231-01DUP	WC-1DUP	0.56	35	NA	N/A	9
Q3231-01MS	WC-1MS	0.58	35	NA	MP87371	10
Q3231-01MSD	WC-1MSD	0.57	35	NA	MP87371	11
Q3231-05	WC-2	0.56	35	NA	N/A	12
Q3231-09	WC-3	0.56	35	NA	N/A	13
Q3231-13	WC-4	0.52	35	NA	N/A	14
Q3232-01	CONC-1	0.59	35	NA	N/A	15
Q3233-01	0926-01	0.53	35	NA	N/A	16
Q3238-01	RCA	0.51	35	NA	N/A	17
Q3240-01	OK-02-092925	0.58	35	NA	N/A	18
Q3245-01	13-1	0.54	35	NA	N/A	19
Q3245-09	12-8	0.55	35	NA	N/A	20
Q3245-17	12-1	0.54	35	NA	N/A	21

WORKLIST(Hardcopy Internal Chain)

WorkList Name : 092925_7471 **WorkList ID :** 192144 **Department :** Digestion **Date :** 09-29-2025 11:13:02

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3230-01	WALL-PROBE-BRICK-1	Solid	Mercury	Cool 4 deg C	PSEG03	D31	09/26/2025	7471B
Q3231-01	WC-1	Solid	Mercury	Cool 4 deg C	PSEG03	D31	09/26/2025	7471B
Q3231-05	WC-2	Solid	Mercury	Cool 4 deg C	PSEG03	D31	09/26/2025	7471B
Q3231-09	WC-3	Solid	Mercury	Cool 4 deg C	PSEG03	D31	09/26/2025	7471B
Q3231-13	WC-4	Solid	Mercury	Cool 4 deg C	PSEG03	D31	09/26/2025	7471B
Q3232-01	CONC-1	Solid	Mercury	Cool 4 deg C	PSEG03	D31	09/26/2025	7471B
Q3233-01	0926-01	Solid	Mercury	Cool 4 deg C	PSEG03	D31	09/26/2025	7471B
Q3245-01	13-1	Solid	Mercury	Cool 4 deg C	PSEG03	D31	09/29/2025	7471B
Q3245-09	12-8	Solid	Mercury	Cool 4 deg C	PSEG03	D31	09/29/2025	7471B
Q3245-17	12-1	Solid	Mercury	Cool 4 deg C	PSEG03	D31	09/29/2025	7471B
Q3220-01	OR-03-092625	Solid	Mercury	Cool 4 deg C	PSEG05	D31	09/26/2025	7471B
Q3221-01	HD-01-092625	Solid	Mercury	Cool 4 deg C	PSEG05	D31	09/26/2025	7471B
Q3222-01	SU-03-092625	Solid	Mercury	Cool 4 deg C	PSEG05	D31	09/26/2025	7471B
Q3240-01	OK-02-092925	Solid	Mercury	Cool 4 deg C	PSEG05	D21	09/29/2025	7471B
Q3215-01	WASTE	Solid	Mercury	Cool 4 deg C	SCIA01		09/25/2025	7471B
Q3238-01	RCA	Solid	Mercury	Cool 4 deg C	YANN01	D31	09/18/2025	7471B

Date/Time 9/29/25 @ 15:40
Raw Sample Received by: MB - DIG. LAB
Raw Sample Relinquished by: MB - DIG. LAB

Date/Time 9/29/25 @ 16:15
Raw Sample Received by: MB - DIG. LAB
Raw Sample Relinquished by: MB - DIG. LAB

PERCENT SOLID

Supervisor: Iwona
Analyst: rubina
Date: 9/29/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:25
In Date: 09/26/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN #1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 09:20
Out Date: 09/27/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB137341

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
Q3215-01	WASTE	1	1.18	10.23	11.41	10.44	90.5	
Q3216-01	WASTE	2	1.19	10.62	11.81	10.67	89.3	
Q3216-02	VOC	3	1.19	10.50	11.69	10.44	88.1	
Q3216-03	1	4	1.16	10.34	11.5	10.53	90.6	
Q3216-04	2	5	1.16	10.69	11.85	10.81	90.3	
Q3216-05	3	6	1.15	10.36	11.51	10.5	90.3	
Q3216-06	4	7	1.18	10.51	11.69	10.72	90.8	
Q3216-07	5	8	1.19	10.41	11.6	10.52	89.6	
Q3220-01	OR-03-092625	9	1.18	10.87	12.05	10.76	88.1	
Q3220-02	OR-03-092625-E2	10	1.16	10.65	11.81	10.54	88.1	
Q3221-01	HD-01-092625	11	1.13	10.49	11.62	10.53	89.6	
Q3221-02	HD-01-092625-E2	12	1.18	10.45	11.63	10.18	86.1	
Q3222-01	SU-03-092625	13	1.19	10.31	11.5	10.46	89.9	
Q3222-02	SU-03-092625-E2	14	1.13	10.77	11.9	10.77	89.5	
Q3223-01	917	15	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q3223-02	917-A	16	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q3223-03	2027	17	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q3223-04	2028	18	1.00	1.00	2.00	2.00	100.0	WIPE SAMPLE
Q3224-01	60159	19	1.00	1.00	2.00	2.00	100.0	oil sample
Q3225-01	60052	20	1.00	1.00	2.00	2.00	100.0	oil sample
Q3226-05	SVOC-GPC-BLANK	21	1.00	1.00	2.00	2.00	100.0	
Q3226-06	PEST-GPC-BLANK	22	1.00	1.00	2.00	2.00	100.0	
Q3226-07	PEST-GPC-BLANK-SPIKE	23	1.00	1.00	2.00	2.00	100.0	
Q3226-09	PEST-GPC2-BLANK	24	1.00	1.00	2.00	2.00	100.0	
Q3226-10	PEST -GPC2-BLANK-SPIKE	25	1.00	1.00	2.00	2.00	100.0	
Q3230-01	WALL-PROBE-BRICK-1	26	1.14	10.40	11.54	9.81	83.4	
Q3231-01	WC-1	27	1.12	10.62	11.74	10.08	84.4	
Q3231-02	WC-1-EPH	28	1.14	10.31	11.45	10.04	86.3	

PERCENT SOLID

Supervisor: Iwona
Analyst: rubina
Date: 9/29/2025

OVENTEMP IN Celsius(°C): 107
Time IN: 17:25
In Date: 09/26/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN #1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 09:20
Out Date: 09/27/2025
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB137341

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
Q3231-03	WC-1-VOC	29	1.12	11.52	12.64	10.63	82.6	
Q3231-05	WC-2	30	1.19	10.17	11.36	9.7	83.7	
Q3231-06	WC-2-EPH	31	1.18	10.31	11.49	9.78	83.4	
Q3231-07	WC-2-VOC	32	1.19	10.83	12.02	10.37	84.8	
Q3231-09	WC-3	33	1.15	10.00	11.15	9.88	87.3	
Q3231-10	WC-3-EPH	34	1.16	10.34	11.5	10.15	86.9	
Q3231-11	WC-3-VOC	35	1.17	11.06	12.23	10.57	85.0	
Q3231-13	WC-4	36	1.16	10.79	11.95	10.81	89.4	
Q3231-14	WC-4-EPH	37	1.13	11.90	13.03	10.87	81.8	
Q3231-15	WC-4-VOC	38	1.14	11.74	12.88	11.3	86.5	
Q3232-01	CONC-1	39	1.00	1.00	2.00	2.00	100.0	Concreate sample
Q3233-01	0926-01	40	1.18	11.05	12.23	12.11	98.9	

$$\% \text{ Solid} = \frac{(C-A) * 100}{(B-A)}$$

WORKLIST(Hardcopy Internal Chain)

VB 137341

WorkList Name : %1-092625 **WorkList ID :** 192106 **Department :** Wet-Chemistry **Date :** 09-26-2025 08:04:06

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3215-01	WASTE	Solid	Percent Solids	Cool 4 deg C	SCIA01	J41	09/25/2025	Chemtech -SO
Q3216-01	WASTE	Solid	Percent Solids	Cool 4 deg C	SCIA01	J41	09/25/2025	Chemtech -SO
Q3216-02	VOC	Solid	Percent Solids	Cool 4 deg C	SCIA01	J41	09/25/2025	Chemtech -SO
Q3216-03	1	Solid	Percent Solids	Cool 4 deg C	SCIA01	J41	09/25/2025	Chemtech -SO
Q3216-04	2	Solid	Percent Solids	Cool 4 deg C	SCIA01	J41	09/25/2025	Chemtech -SO
Q3216-05	3	Solid	Percent Solids	Cool 4 deg C	SCIA01	J41	09/25/2025	Chemtech -SO
Q3216-06	4	Solid	Percent Solids	Cool 4 deg C	SCIA01	J41	09/25/2025	Chemtech -SO
Q3216-07	5	Solid	Percent Solids	Cool 4 deg C	SCIA01	J41	09/25/2025	Chemtech -SO
Q3220-01	OR-03-092625	Solid	Percent Solids	Cool 4 deg C	SCIA01	J41	09/25/2025	Chemtech -SO
Q3220-02	OR-03-092625-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	D31	09/26/2025	Chemtech -SO
Q3221-01	HD-01-092625	Solid	Percent Solids	Cool 4 deg C	PSEG05	D31	09/26/2025	Chemtech -SO
Q3221-02	HD-01-092625-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	D31	09/26/2025	Chemtech -SO
Q3222-01	SU-03-092625	Solid	Percent Solids	Cool 4 deg C	PSEG05	D31	09/26/2025	Chemtech -SO
Q3222-02	SU-03-092625-E2	Solid	Percent Solids	Cool 4 deg C	PSEG05	D31	09/26/2025	Chemtech -SO
Q3223-01	917	Solid	Percent Solids	Cool 4 deg C	PSEG05	D31	09/26/2025	Chemtech -SO
Q3223-02	917-A	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/26/2025	Chemtech -SO
Q3223-03	2027	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/26/2025	Chemtech -SO
Q3223-04	2028	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/26/2025	Chemtech -SO
Q3224-01	60159	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/26/2025	Chemtech -SO
Q3225-01	60052	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/26/2025	Chemtech -SO
Q3226-05	SVOC-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	ALLI03	A12	09/19/2025	Chemtech -SO

Date/Time 09/26/25 15:10

Raw Sample Received by: [signature]

Raw Sample Relinquished by: Rm Sm

Date/Time 09/26/25 1730

Raw Sample Received by: Rm Sm

Raw Sample Relinquished by: [signature]

WORKLIST(Hardcopy Internal Chain)

VB 137341

WorkList Name : %1-092625 **WorkList ID :** 192106 **Department :** Wet-Chemistry **Date :** 09-26-2025 08:04:06

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q3226-06	PEST-GPC-BLANK	Solid	Percent Solids	Cool 4 deg C	ALLI03	A12	09/19/2025	Chemtech -SO
Q3226-07	PEST-GPC-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	ALLI03	A12	09/19/2025	Chemtech -SO
Q3226-09	PEST-GPC2-BLANK	Solid	Percent Solids	Cool 4 deg C	ALLI03	A12	09/19/2025	Chemtech -SO
Q3226-10	PEST -GPC2-BLANK-SPIKE	Solid	Percent Solids	Cool 4 deg C	ALLI03	A12	09/19/2025	Chemtech -SO
Q3230-01	WALL-PROBE-BRICK-1	Solid	Percent Solids	Cool 4 deg C	ALLI03	A12	09/19/2025	Chemtech -SO
Q3231-01	WC-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/26/2025	Chemtech -SO
Q3231-02	WC-1-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/26/2025	Chemtech -SO
Q3231-03	WC-1-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/26/2025	Chemtech -SO
Q3231-05	WC-2	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/26/2025	Chemtech -SO
Q3231-06	WC-2-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/26/2025	Chemtech -SO
Q3231-07	WC-2-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/26/2025	Chemtech -SO
Q3231-09	WC-3	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/26/2025	Chemtech -SO
Q3231-10	WC-3-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/26/2025	Chemtech -SO
Q3231-11	WC-3-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/26/2025	Chemtech -SO
Q3231-13	WC-4	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/26/2025	Chemtech -SO
Q3231-14	WC-4-EPH	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/26/2025	Chemtech -SO
Q3231-15	WC-4-VOC	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/26/2025	Chemtech -SO
Q3232-01	CONC-1	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/26/2025	Chemtech -SO
Q3233-01	0926-01	Solid	Percent Solids	Cool 4 deg C	PSEG03	D31	09/26/2025	Chemtech -SO

Date/Time 09/26/25 15:10

Raw Sample Received by: [signature]

Raw Sample Relinquished by: RM SM

Date/Time 09/26/25 17:30

Raw Sample Received by: RM SM

Raw Sample Relinquished by: [signature]

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Fax : 908 789 8922

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB137359

Review By	mohan	Review On	10/1/2025 3:36:23 PM
Supervise By	jaswal	Supervise On	10/1/2025 3:41:34 PM

STD. NAME	STD REF.#
ICAL Standard	MP87372,MP87373,MP87374,MP87375,MP87376,MP87377
ICV Standard	MP87378
CCV Standard	MP87380
ICSA Standard	
CRI Standard	MP87382
LCS Standard	
Chk Standard	MP87379,MP87381,MP87383,MP87401

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	09/30/25 09:32		mohan	OK
2	S0.2	S0.2	CAL2	09/30/25 09:34		mohan	OK
3	S2.5	S2.5	CAL3	09/30/25 09:36		mohan	OK
4	S5	S5	CAL4	09/30/25 09:39		mohan	OK
5	S7.5	S7.5	CAL5	09/30/25 09:41		mohan	OK
6	S10	S10	CAL6	09/30/25 09:43		mohan	OK
7	ICV51	ICV51	ICV	09/30/25 09:46		mohan	OK
8	ICB51	ICB51	ICB	09/30/25 09:49		mohan	OK
9	CCV57	CCV57	CCV	09/30/25 09:51		mohan	OK
10	CCB57	CCB57	CCB	09/30/25 09:53		mohan	OK
11	CRA	CRA	CRDL	09/30/25 09:55		mohan	OK
12	HighStd	HighStd	HIGH STD	09/30/25 09:58		mohan	OK
13	ChkStd	ChkStd	SAM	09/30/25 10:00		mohan	OK
14	PB169897BL	PB169897BL	MB	09/30/25 10:02		mohan	OK
15	PB169897BS	PB169897BS	LCS	09/30/25 10:05		mohan	OK
16	Q3215-01	WASTE	SAM	09/30/25 10:07		mohan	OK
17	Q3220-01	OR-03-092625	SAM	09/30/25 10:09		mohan	OK
18	Q3221-01	HD-01-092625	SAM	09/30/25 10:12		mohan	OK

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Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB137359

Review By	mohan	Review On	10/1/2025 3:36:23 PM
Supervise By	jaswal	Supervise On	10/1/2025 3:41:34 PM

STD. NAME	STD REF.#
ICAL Standard	MP87372,MP87373,MP87374,MP87375,MP87376,MP87377
ICV Standard	MP87378
CCV Standard	MP87380
ICSA Standard	
CRI Standard	MP87382
LCS Standard	
Chk Standard	MP87379,MP87381,MP87383,MP87401

19	Q3222-01	SU-03-092625	SAM	09/30/25 10:14		mohan	OK
20	Q3230-01	WALL-PROBE-BRICK	SAM	09/30/25 10:16		mohan	OK
21	CCV58	CCV58	CCV	09/30/25 10:19		mohan	OK
22	CCB58	CCB58	CCB	09/30/25 10:21		mohan	OK
23	Q3231-01	WC-1	SAM	09/30/25 10:24	High	mohan	Dilution
24	Q3231-01DUP	WC-1DUP	DUP	09/30/25 10:30	High	mohan	Dilution
25	Q3231-01MS	WC-1MS	MS	09/30/25 10:32	High	mohan	Dilution
26	Q3231-01MSD	WC-1MSD	MSD	09/30/25 10:35	High	mohan	Dilution
27	Q3231-05	WC-2	SAM	09/30/25 10:37		mohan	OK
28	Q3231-09	WC-3	SAM	09/30/25 10:40		mohan	OK
29	Q3231-13	WC-4	SAM	09/30/25 10:43		mohan	OK
30	Q3232-01	CONC-1	SAM	09/30/25 10:45		mohan	OK
31	Q3233-01	0926-01	SAM	09/30/25 10:47		mohan	OK
32	Q3238-01	RCA	SAM	09/30/25 10:50		mohan	OK
33	CCV59	CCV59	CCV	09/30/25 10:52		mohan	OK
34	CCB59	CCB59	CCB	09/30/25 10:54		mohan	OK
35	Q3240-01	OK-02-092925	SAM	09/30/25 10:56		mohan	OK
36	Q3245-01	13-1	SAM	09/30/25 10:59		mohan	OK
37	Q3245-09	12-8	SAM	09/30/25 11:01		mohan	OK
38	Q3245-17	12-1	SAM	09/30/25 11:03		mohan	OK

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Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB137359

Review By	mohan	Review On	10/1/2025 3:36:23 PM
Supervise By	jaswal	Supervise On	10/1/2025 3:41:34 PM

STD. NAME	STD REF.#
ICAL Standard	MP87372,MP87373,MP87374,MP87375,MP87376,MP87377
ICV Standard	MP87378
CCV Standard	MP87380
ICSA Standard	
CRI Standard	MP87382
LCS Standard	
Chk Standard	MP87379,MP87381,MP87383,MP87401

39	Q3231-01L	WC-1L	SD	09/30/25 11:06	High	mohan	Dilution
40	Q3231-01A	WC-1A	PS	09/30/25 11:08	High	mohan	Dilution
41	CCV60	CCV60	CCV	09/30/25 11:10		mohan	OK
42	CCB60	CCB60	CCB	09/30/25 11:13		mohan	OK
43	Q3231-01DL	WC-1DL	SAM	09/30/25 11:15	Report 5X	mohan	Confirms
44	Q3231-01DUPDL	WC-1DUPDL	DUP	09/30/25 11:18	Report 5X	mohan	Confirms
45	Q3231-01MSDL	WC-1MSDL	MS	09/30/25 11:20	Report 5X	mohan	Confirms
46	Q3231-01MSDDL	WC-1MSDDL	MSD	09/30/25 11:22	Report 5X	mohan	Confirms
47	Q3231-01LDL	WC-1LDL	SD	09/30/25 11:25	Report 5X	mohan	Confirms
48	Q3231-01ADL	WC-1ADL	PS	09/30/25 11:27	Report 5X	mohan	Confirms
49	CCV61	CCV61	CCV	09/30/25 11:35		mohan	OK
50	CCB61	CCB61	CCB	09/30/25 11:40		mohan	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB137374

Review By	Janvi	Review On	10/1/2025 11:47:17 AM
Supervise By	jaswal	Supervise On	10/1/2025 3:34:13 PM

STD. NAME	STD REF.#
ICAL Standard	MP87031,MP87038,MP87035,MP87034,MP87033,MP87032
ICV Standard	MP87404,MP87038
CCV Standard	MP87042
ICSA Standard	MP87040,MP87405
CRI Standard	MP87038
LCS Standard	
Chk Standard	MP87043,MP87044,MP87045,MP87046,MP87049

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	09/30/25 12:51		Jaswal	OK
2	S1	S1	CAL2	09/30/25 12:56		Jaswal	OK
3	S2	S2	CAL3	09/30/25 13:00		Jaswal	OK
4	S3	S3	CAL4	09/30/25 13:04		Jaswal	OK
5	S4	S4	CAL5	09/30/25 13:08		Jaswal	OK
6	S5	S5	CAL6	09/30/25 13:12		Jaswal	OK
7	ICV01	ICV01	ICV	09/30/25 13:16		Jaswal	OK
8	LLICV01	LLICV01	LLICV	09/30/25 13:22		Jaswal	OK
9	ICB01	ICB01	ICB	09/30/25 13:32		Jaswal	OK
10	CRI01	CRI01	CRDL	09/30/25 13:39		Jaswal	OK
11	ICSA01	ICSA01	ICSA	09/30/25 13:44		Jaswal	OK
12	ICSAB01	ICSAB01	ICSAB	09/30/25 13:56		Jaswal	OK
13	ICSADL	ICSADL	ICSA	09/30/25 14:00		Jaswal	OK
14	ICSABDL	ICSABDL	ICSAB	09/30/25 14:04		Jaswal	OK
15	CCV01	CCV01	CCV	09/30/25 14:08		Jaswal	OK
16	CCB01	CCB01	CCB	09/30/25 14:18		Jaswal	OK
17	LR-1	LR-1	HIGH STD	09/30/25 14:22		Jaswal	OK
18	LR-2	LR-2	HIGH STD	09/30/25 14:26		Jaswal	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB137374

Review By	Janvi	Review On	10/1/2025 11:47:17 AM
Supervise By	jaswal	Supervise On	10/1/2025 3:34:13 PM

STD. NAME	STD REF.#
ICAL Standard	MP87031,MP87038,MP87035,MP87034,MP87033,MP87032
ICV Standard	MP87404,MP87038
CCV Standard	MP87042
ICSA Standard	MP87040,MP87405
CRI Standard	MP87038
LCS Standard	
Chk Standard	MP87043,MP87044,MP87045,MP87046,MP87049

19	Q3177-01DL	EME-TS12-01DL	SAM	09/30/25 14:54	25x for S	Jaswal	Confirms
20	Q3177-02DL	EME-TS13-01DL	SAM	09/30/25 14:58	40x for S	Jaswal	Confirms
21	Q3177-03DL	EME-TS14-02DL	SAM	09/30/25 15:03	40x for S	Jaswal	Confirms
22	Q3179-01DL	EME-TS14-01DL	SAM	09/30/25 15:07	40x for S	Jaswal	Confirms
23	Q3179-01DUPDL	EME-TS14-01DUPDL	DUP	09/30/25 15:11	40x for S	Jaswal	Confirms
24	LR-3	LR-3	HIGH STD	09/30/25 15:31		Jaswal	OK
25	CCV02	CCV02	CCV	09/30/25 15:41		Jaswal	OK
26	CCB02	CCB02	CCB	09/30/25 15:50		Jaswal	OK
27	Q3179-01LDL	EME-TS14-01LDL	SD	09/30/25 16:02	Not Required	Jaswal	Not Ok
28	Q3179-02DL	EME-TS14-01MSDL	MS	09/30/25 16:06	40x for S	Jaswal	Confirms
29	Q3179-03DL	EME-TS14-01MSDDL	MSD	09/30/25 16:10	40x for S	Jaswal	Confirms
30	Q3179-01ADL	EME-TS14-01ADL	PS	09/30/25 16:14	Not Required (0.1 ml of each M6008 AND M6018 0.4 ml of M5816 in10ML sample before dilution)	Jaswal	Not Ok
31	Q3177-01	EME-TS12-01	SAM	09/30/25 16:23	S high	Jaswal	Dilution
32	Q3177-02	EME-TS13-01	SAM	09/30/25 16:27	S high	Jaswal	Dilution
33	Q3177-03	EME-TS14-02	SAM	09/30/25 16:31	S high	Jaswal	Dilution
34	Q3179-01	EME-TS14-01	SAM	09/30/25 16:35	S high	Jaswal	Dilution
35	Q3179-01DUP	EME-TS14-01DUP	DUP	09/30/25 16:39	S high	Jaswal	Dilution
36	CCV03	CCV03	CCV	09/30/25 16:43		Jaswal	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB137374

Review By	Janvi	Review On	10/1/2025 11:47:17 AM
Supervise By	jaswal	Supervise On	10/1/2025 3:34:13 PM

STD. NAME	STD REF.#
ICAL Standard	MP87031,MP87038,MP87035,MP87034,MP87033,MP87032
ICV Standard	MP87404,MP87038
CCV Standard	MP87042
ICSA Standard	MP87040,MP87405
CRI Standard	MP87038
LCS Standard	
Chk Standard	MP87043,MP87044,MP87045,MP87046,MP87049

37	CCB03	CCB03	CCB	09/30/25 16:53		Jaswal	OK
38	Q3179-01L	EME-TS14-01L	SD	09/30/25 16:58		Jaswal	OK
39	Q3179-02	MS	MS	09/30/25 17:03	S high	Jaswal	Dilution
40	Q3179-03	MSD	MSD	09/30/25 17:06	S high	Jaswal	Dilution
41	Q3179-01A	EME-TS14-01A	PS	09/30/25 17:10	0.1ml of each M6007 and M6017 and 0.4 ml of M5816 in 10ml sample.	Jaswal	OK
42	PB169892BL	PB169892BL	MB	09/30/25 17:14		Jaswal	OK
43	PB169892BS	PB169892BS	LCS	09/30/25 17:19		Jaswal	OK
44	Q3215-01	WASTE	SAM	09/30/25 17:23		Jaswal	OK
45	Q3220-01	OR-03-092625	SAM	09/30/25 17:27		Jaswal	OK
46	Q3221-01	HD-01-092625	SAM	09/30/25 17:31		Jaswal	OK
47	Q3222-01	SU-03-092625	SAM	09/30/25 17:35		Jaswal	OK
48	CCV04	CCV04	CCV	09/30/25 17:39		Jaswal	OK
49	CCB04	CCB04	CCB	09/30/25 17:43		Jaswal	OK
50	Q3230-01	WALL-PROBE-BRICK	SAM	09/30/25 17:47		Jaswal	OK
51	Q3231-01	WC-1	SAM	09/30/25 17:51		Jaswal	OK
52	Q3231-01L	WC-1L	SD	09/30/25 17:59		Jaswal	OK
53	Q3231-01MS	WC-1MS	MS	09/30/25 18:03		Jaswal	OK
54	Q3231-01DUP	WC-1DUP	DUP	09/30/25 18:11		Jaswal	OK
55	Q3231-01MSD	WC-1MSD	MSD	09/30/25 18:15		Jaswal	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB137374

Review By	Janvi	Review On	10/1/2025 11:47:17 AM
Supervise By	jaswal	Supervise On	10/1/2025 3:34:13 PM

STD. NAME	STD REF.#
ICAL Standard	MP87031,MP87038,MP87035,MP87034,MP87033,MP87032
ICV Standard	MP87404,MP87038
CCV Standard	MP87042
ICSA Standard	MP87040,MP87405
CRI Standard	MP87038
LCS Standard	
Chk Standard	MP87043,MP87044,MP87045,MP87046,MP87049

56	Q3231-01A	WC-1A	PS	09/30/25 18:19	0.1ml of each M6007 and M6017 in 10ml sample.	Jaswal	OK
57	Q3231-05	WC-2	SAM	09/30/25 18:23		Jaswal	OK
58	Q3231-09	WC-3	SAM	09/30/25 18:27		Jaswal	OK
59	Q3231-13	WC-4	SAM	09/30/25 18:31		Jaswal	OK
60	CCV05	CCV05	CCV	09/30/25 18:55		Jaswal	OK
61	CCB05	CCB05	CCB	09/30/25 18:59		Jaswal	OK
62	Q3232-01	CONC-1	SAM	09/30/25 19:03		Jaswal	OK
63	Q3233-01RE	0926-01RE	SAM	09/30/25 19:07	NOT USE	Jaswal	Not Ok
64	Q3187-04	228	SAM	09/30/25 19:12		Jaswal	OK
65	Q3230-03	WALL-PROBE-BRICK	SAM	09/30/25 19:16		Jaswal	OK
66	Q3231-04	WC-1	SAM	09/30/25 19:20		Jaswal	OK
67	Q3231-08	WC-2	SAM	09/30/25 19:24		Jaswal	OK
68	Q3231-12	WC-3	SAM	09/30/25 19:29		Jaswal	OK
69	Q3231-16	WC-4	SAM	09/30/25 19:33		Jaswal	OK
70	Q3232-02	CONC-1	SAM	09/30/25 19:37		Jaswal	OK
71	Q3233-01	0926-01	SAM	09/30/25 19:41		Jaswal	OK
72	CCV06	CCV06	CCV	09/30/25 19:45		Jaswal	OK
73	CCB06	CCB06	CCB	09/30/25 19:49	CCB fail for S	Jaswal	OK
74	Q3233-01DUP	0926-01DUP	DUP	09/30/25 19:54		Jaswal	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB137374

Review By	Janvi	Review On	10/1/2025 11:47:17 AM
Supervise By	jaswal	Supervise On	10/1/2025 3:34:13 PM

STD. NAME	STD REF.#
ICAL Standard	MP87031,MP87038,MP87035,MP87034,MP87033,MP87032
ICV Standard	MP87404,MP87038
CCV Standard	MP87042
ICSA Standard	MP87040,MP87405
CRI Standard	MP87038
LCS Standard	
Chk Standard	MP87043,MP87044,MP87045,MP87046,MP87049

75	Q3233-01L	0926-01L	SD	09/30/25 19:58		Jaswal	OK
76	Q3233-01MS	0926-01MS	MS	09/30/25 20:02		Jaswal	OK
77	Q3233-01MSD	0926-01MSD	MSD	09/30/25 20:06		Jaswal	OK
78	Q3233-01A	0926-01A	PS	09/30/25 20:10	0.1ml of each M6007 and M6017 in 10ml sample.	Jaswal	OK
79	PB169911BL	PB169911BL	MB	09/30/25 20:14		Jaswal	OK
80	PB169911BS	PB169911BS	LCS	09/30/25 20:18		Jaswal	OK
81	Q3199-01	ELZ-25-000117	SAM	09/30/25 20:27		Jaswal	OK
82	Q3199-02	ELZ-25-00098	SAM	09/30/25 20:31		Jaswal	OK
83	CCV07	CCV07	CCV	09/30/25 20:35		Jaswal	OK
84	CCB07	CCB07	CCB	09/30/25 20:39	CCB fail for S	Jaswal	OK
85	Q3199-03	ELZ-25-000111	SAM	09/30/25 20:43		Jaswal	OK
86	Q3199-04	ELZ-25-000110	SAM	09/30/25 20:47		Jaswal	OK
87	Q3199-05	ELZ-25-000124	SAM	09/30/25 20:52		Jaswal	OK
88	Q3199-06	ELZ-25-000125	SAM	09/30/25 20:56		Jaswal	OK
89	Q3199-07	ELZ-25-00097	SAM	09/30/25 21:00		Jaswal	OK
90	Q3207-01	Drum#1- Poly Sheetin	SAM	09/30/25 21:04		Jaswal	OK
91	Q3207-02	Drum#2 PPE	SAM	09/30/25 21:08		Jaswal	OK
92	Q3207-03	Drum#3 Paint Chips	SAM	09/30/25 21:12		Jaswal	OK
93	Q3215-02	WASTE	SAM	09/30/25 21:17		Jaswal	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB137374

Review By	Janvi	Review On	10/1/2025 11:47:17 AM
Supervise By	jaswal	Supervise On	10/1/2025 3:34:13 PM

STD. NAME	STD REF.#
ICAL Standard	MP87031,MP87038,MP87035,MP87034,MP87033,MP87032
ICV Standard	MP87404,MP87038
CCV Standard	MP87042
ICSA Standard	MP87040,MP87405
CRI Standard	MP87038
LCS Standard	
Chk Standard	MP87043,MP87044,MP87045,MP87046,MP87049

94	PB169843TB	PB169843TB	MB	09/30/25 21:21		Jaswal	OK
95	CCV08	CCV08	CCV	09/30/25 21:25		Jaswal	OK
96	CCB08	CCB08	CCB	09/30/25 21:29	CCB fail for K,Li,S,Na	Jaswal	OK
97	Q3199-09	ELZ-25-000107	SAM	09/30/25 21:41		Jaswal	OK
98	Q3199-09DUP	ELZ-25-000107DUP	DUP	09/30/25 21:45		Jaswal	OK
99	Q3199-09L	ELZ-25-000107L	SD	09/30/25 21:49		Jaswal	OK
100	Q3199-09MS	ELZ-25-000107MS	MS	09/30/25 21:54		Jaswal	OK
101	Q3199-09MSD	ELZ-25-000107MSD	MSD	09/30/25 21:58		Jaswal	OK
102	Q3199-09A	ELZ-25-000107A	PS	09/30/25 22:01	0.1ml of each M6007 and M6017 in 10ml sample.	Jaswal	OK
103	PB169917BL	PB169917BL	MB	09/30/25 22:06		Jaswal	OK
104	PB169917BS	PB169917BS	LCS	09/30/25 22:10		Jaswal	OK
105	CCV09	CCV09	CCV	09/30/25 22:14		Jaswal	OK
106	CCB09	CCB09	CCB	09/30/25 22:18	CCB fail for K,Li,S,Sn	Jaswal	OK
107	Q3245-08	13-1	SAM	09/30/25 22:22	Not Use	Jaswal	Not Ok
108	Q3245-16	12-8	SAM	09/30/25 22:26	Not Use	Jaswal	Not Ok
109	Q3245-24	12-1	SAM	09/30/25 22:30	Not Use	Jaswal	Not Ok
110	Q3245-24DUP	12-1DUP	DUP	09/30/25 22:35	Not Use	Jaswal	Not Ok
111	Q3245-24L	12-1L	SD	09/30/25 22:39	Not Use	Jaswal	Not Ok
112	Q3245-24MS	12-1MS	MS	09/30/25 22:43	Not Use	Jaswal	Not Ok

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB137374

Review By	Janvi	Review On	10/1/2025 11:47:17 AM
Supervise By	jaswal	Supervise On	10/1/2025 3:34:13 PM

STD. NAME	STD REF.#
ICAL Standard	MP87031,MP87038,MP87035,MP87034,MP87033,MP87032
ICV Standard	MP87404,MP87038
CCV Standard	MP87042
ICSA Standard	MP87040,MP87405
CRI Standard	MP87038
LCS Standard	
Chk Standard	MP87043,MP87044,MP87045,MP87046,MP87049

113	Q3245-24MSD	12-1MSD	MSD	09/30/25 22:47	Not Use	Jaswal	Not Ok
114	Q3245-24A	12-1A	PS	09/30/25 22:51	Not Use , 0.1ml of each M6007 and M6017 in 10ml sample.	Jaswal	Not Ok
115	PB169900TB	PB169900TB	MB	09/30/25 22:55		Jaswal	OK
116	CCV10	CCV10	CCV	09/30/25 23:00		Jaswal	OK
117	CCB10	CCB10	CCB	09/30/25 23:04	CCB fail for K,Li,Na,S,Sn	Jaswal	OK

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Prep Standard - Chemical Standard Summary

Order ID : Q3215

Test : Mercury,Metals ICP-RCRA

Prepbatch ID : PB169892,PB169897,

Sequence ID/Qc Batch ID: LB137359,LB137374,LB137374,

Standard ID :
MP85156,MP87031,MP87032,MP87033,MP87034,MP87035,MP87036,MP87038,MP87040,MP87042,MP87043,MP87044,MP87045,MP87046,MP87049,MP87072,MP87149,MP87371,MP87372,MP87373,MP87374,MP87375,MP87376,MP87377,MP87378,MP87379,MP87380,MP87381,MP87382,MP87383,MP87384,MP87401,MP87404,MP87405,

Chemical ID :
M4916,M5062,M5467,M5581,M5582,M5658,M5748,M5751,M5798,M5799,M5800,M5801,M5814,M5817,M5820,M5882,M5884,M5923,M5962,M5969,M5970,M5971,M5979,M5985,M5998,M6019,M6021,M6023,M6026,M6027,M6028,M6030,M6032,M6058,M6077,M6128,M6137,M6138,M6140,M6142,M6144,M6145,M6151,M6158,M6159,M6160,M6161,M6163,M6164,M6165,M6170,M6171,M6174,M6176,M6177,M6178,M6179,M6180,M6181,M6182,M6184,M6187,M6196,M6200,W3112,

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
170	1:1HCL	MP85156	04/07/2025	10/08/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 1250.00000ml of M6151 + 1250.00000ml of W3112 = Final Quantity: 2500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
902	ICP AES CAL BLK (SO/ICB/CCB)	MP87031	09/02/2025	10/03/2025	Sarabjit Jaswal	None	None	Janvi Patel 09/04/2025

FROM 125.00000ml of M6151 + 2350.00000ml of W3112 + 25.00000ml of M6187 = Final Quantity: 2500.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
907	ICP AES STD S (S5)	MP87032	09/02/2025	10/03/2025	Sarabjit Jaswal	None	None	Janvi Patel 09/04/2025

FROM 5.00000ml of M5467 + 5.00000ml of M5820 + 5.00000ml of M5969 + 5.00000ml of M5971 + 5.00000ml of M5998 + 5.00000ml of M6077 + 5.00000ml of M6160 + 5.00000ml of M6174 + 5.00000ml of M6176 + 455.00000ml of MP87031 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
910	ICP AES STD S4	MP87033	09/02/2025	10/03/2025	Sarabjit Jaswal	None	None	Janvi Patel 09/04/2025

FROM 50.00000ml of MP87031 + 50.00000ml of MP87032 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
909	ICP AES STD S3	MP87034	09/02/2025	10/03/2025	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Janvi Patel 09/04/2025

FROM 25.00000ml of MP87032 + 75.00000ml of MP87031 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3913	ICP AES STD S2	MP87035	09/02/2025	10/03/2025	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Janvi Patel 09/04/2025

FROM 16.00000ml of MP87032 + 184.00000ml of MP87031 = Final Quantity: 200.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2950	ICP AES S1/CRI STOCK STD	MP87036	09/02/2025	10/03/2025	Sarabjit Jaswal	None	None	Janvi Patel 09/04/2025

FROM 0.03000ml of M5798 + 0.03000ml of M6028 + 0.04000ml of M6137 + 0.05000ml of M5658 + 0.05000ml of M6030 + 0.05000ml of M6140 + 0.05000ml of M6159 + 0.06000ml of M6177 + 0.10000ml of M5751 + 0.10000ml of M5801 + 0.10000ml of M5820 + 0.10000ml of M5962 + 0.10000ml of M5971 + 0.10000ml of M6128 + 0.10000ml of M6176 + 0.15000ml of M5800 + 0.20000ml of M5799 + 0.20000ml of M6021 + 0.20000ml of M6023 + 0.20000ml of M6027 + 0.20000ml of M6145 + 0.25000ml of M5467 + 0.25000ml of M6160 + 0.50000ml of M5814 + 0.50000ml of M6032 + 1.00000ml of M5979 + 1.00000ml of M6138 + 1.00000ml of M6142 + 1.00000ml of M6144 + 1.00000ml of M6171 + 1.00000ml of M6178 + 2.00000ml of M5969 + 88.29000ml of MP87031 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2951	ICP AES S1/CRI WORK STD	MP87038	09/02/2025	10/03/2025	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Janvi Patel 09/04/2025

FROM 2.00000ml of MP87036 + 98.00000ml of MP87031 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
904	ICP AES ICSA SOLN	MP87040	09/02/2025	10/03/2025	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Janvi Patel 09/04/2025

FROM 25.00000ml of M6182 + 225.00000ml of MP87031 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
911	ICP AES CCV SOLN	MP87042	09/02/2025	10/03/2025	Sarabjit Jaswal	None	None	Janvi Patel 09/04/2025

FROM 50.00000ml of MP87031 + 50.00000ml of MP87032 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
919	ICP AES INTERNAL STD	MP87043	09/02/2025	10/03/2025	Sarabjit Jaswal	None	None	Janvi Patel 09/04/2025

FROM 1.00000ml of M6179 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M6187 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
903	ICP AES RINSE SOLN	MP87044	09/02/2025	10/03/2025	Sarabjit Jaswal	None	None	Janvi Patel 09/04/2025

FROM 200.00000ml of M6187 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4225	LR-1	MP87045	09/02/2025	10/03/2025	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Janvi Patel 09/04/2025

FROM 11.50000ml of M6138 + 11.50000ml of M6144 + 11.50000ml of M6171 + 15.50000ml of MP87031 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4226	LR-2	MP87046	09/02/2025	10/03/2025	Sarabjit Jaswal	None	METALS_PIPETTE_3 (A)	Janvi Patel 09/04/2025

FROM 13.50000ml of M6140 + 9.00000ml of M6142 + 9.50000ml of M6159 + 18.00000ml of MP87031 = Final Quantity: 50.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4227	LR-3	MP87049	09/02/2025	10/03/2025	Sarabjit Jaswal	None	None	Janvi Patel 09/04/2025

FROM 1.15000ml of M6026 + 1.25000ml of M5658 + 1.25000ml of M5748 + 1.50000ml of M6145 + 2.50000ml of M5751 + 2.50000ml of M6128 + 39.85000ml of MP87031 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
65	POTASSIUM PERMANGANATE SOLUTION 5 %	MP87072	09/04/2025	03/04/2026	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 09/04/2025

FROM 100.00000gram of M4916 + 2000.00000ml of W3112 = Final Quantity: 2000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
67	SODIUM CHLORIDE - HYDROXYL- CHLORIDE SOLUTION	MP87149	09/09/2025	02/03/2026	Mohan Bera	METALS_SCALE_2 (M SC-2)	None	Sarabjit Jaswal 09/10/2025

FROM 2000.00000ml of W3112 + 240.00000gram of M5884 + 240.00000ml of M6196 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
871	MERCURY INTERMEDIATE B 250PPB WORKING STD.	MP87371	09/29/2025	09/30/2025	Mohan Bera	None	METALS_PIPETTE_5 (HG A)	Sarabjit Jaswal 09/29/2025

FROM 1.00000ml of M6187 + 2.50000ml of M5062 + 96.50000ml of W3112 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1340	Hg 0.00 PPB STD	MP87372	09/29/2025	09/30/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 09/29/2025

FROM 2.50000ml of M6187 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1341	Hg 0.2 PPB STD	MP87373	09/29/2025	09/30/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 09/29/2025

FROM 2.50000ml of M6187 + 247.50000ml of W3112 + 0.20000ml of MP87371 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1342	Hg 2.5 PPB STD	MP87374	09/29/2025	09/30/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 09/29/2025

FROM 2.50000ml of M6187 + 245.00000ml of W3112 + 2.50000ml of MP87371 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1343	Hg 5.0 PPB STD	MP87375	09/29/2025	09/30/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 09/29/2025

FROM 2.50000ml of M6187 + 242.50000ml of W3112 + 5.00000ml of MP87371 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1344	Hg 7.5 PPB STD	MP87376	09/29/2025	09/30/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 09/29/2025

FROM 2.50000ml of M6187 + 240.00000ml of W3112 + 7.50000ml of MP87371 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1345	Hg 10.0 PPB STD	MP87377	09/29/2025	09/30/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 09/29/2025

FROM 2.50000ml of M6187 + 237.50000ml of W3112 + 10.00000ml of MP87371 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1346	Hg ICV SOLUTION	MP87378	09/29/2025	09/30/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 09/29/2025

FROM 2.50000ml of M6161 + 2.50000ml of M6187 + 245.00000ml of W3112 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1351	ICB (Hg 0.00 PPB SOLUTION)	MP87379	09/29/2025	09/30/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 09/29/2025

FROM 2.50000ml of M6187 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1358	CCV (Hg 5.0 PPB SOLUTION)	MP87380	09/29/2025	09/30/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 09/29/2025

FROM 485.00000ml of W3112 + 5.00000ml of M6187 + 10.00000ml of MP87371 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1352	CCB (Hg 0.00 PPB SOLUTION)	MP87381	09/29/2025	09/30/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 09/29/2025

FROM 495.00000ml of W3112 + 5.00000ml of M6187 = Final Quantity: 500.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1349	CRA/CRI (Hg 0.2 PPB SOLUTION)	MP87382	09/29/2025	09/30/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 09/29/2025

FROM 2.50000ml of M6187 + 247.50000ml of W3112 + 0.20000ml of MP87371 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1350	CHK STD (Hg 7.0 PPB SOLUTION)	MP87383	09/29/2025	09/30/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 09/29/2025

FROM 2.50000ml of M6187 + 240.50000ml of W3112 + 7.00000ml of MP87371 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
887	AQUA REGIA FOR HG ON 7471A	MP87384	09/29/2025	09/30/2025	Mohan Bera	None	None	Sarabjit Jaswal 09/29/2025

FROM 150.00000ml of M6151 + 50.00000ml of M6187 = Final Quantity: 200.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
68	STANNOUS CHLORIDE SOLUTION	MP87401	09/30/2025	10/01/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	Glass Pipette-A	Sarabjit Jaswal 10/02/2025

FROM 450.00000ml of W3112 + 50.00000gram of M5882 + 50.00000ml of M6200 = Final Quantity: 500.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4163	NEW ICV-060925	MP87404	09/22/2025	10/03/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/02/2025

FROM 0.02000ml of M5817 + 0.20000ml of M5923 + 0.20000ml of M6019 + 0.20000ml of M6058 + 0.40000ml of M6163 + 0.40000ml of M6164 + 0.40000ml of M6165 + 48.18000ml of MP87031 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3494	ICP AES ICSAB SOLN-1	MP87405	09/22/2025	10/03/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/02/2025

FROM 0.01000ml of M5817 + 0.10000ml of M5970 + 0.10000ml of M6077 + 0.10000ml of M6176 + 10.00000ml of M6182 + 10.00000ml of M6184 + 79.69000ml of MP87031 = Final Quantity: 100.000 ml

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3227-05 / Potassium Permanganate (2.5kg)	210800	03/31/2026	11/30/2022 / mohan	07/28/2021 / mohan	M4916

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	MSHG-10PPM / MERCURY HCl 125mL 10ug/mL	S2-HG709270	09/22/2026	05/28/2022 / mohan	01/27/2022 / mohan	M5062

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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 #
PCI Scientific Supply, Inc.	26397-103 / PTFE BOILING STONES	W126678	03/20/2026	03/20/2025 /	06/12/2023 / jaswal	M5581

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	26397-103 / PTFE BOILING STONES	W126678	12/31/2025	06/17/2023 / Al-Terek	06/12/2023 / jaswal	M5582

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

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ Nickel (Ni) 1000PPM	091223	09/12/2026	01/02/2024 / bin	12/20/2023 / jaswal	M5748

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	071723	07/17/2026	10/01/2024 / Jaswal	08/25/2023 / jaswal	M5751

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57004 / Be, 1000 PPM, 125 ml	102523	10/25/2026	02/09/2024 / bin	02/09/2024 / bin	M5798

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57050 / Sn, 1000 PPM, 125 ml	071123	07/11/2026	02/09/2024 / bin	02/09/2024 / bin	M5799

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57027 / CO, 1000 PPM, 125 ml	091923	09/19/2026	05/31/2024 / bin	02/09/2024 / bin	M5800

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

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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.	57116 / S, 10000 PPM, 125 ml	071123	07/11/2026	03/01/2024 / jaswal	02/09/2024 / jaswal	M5817

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57015 / P, 1000 PPM, 125 ml	091123	09/11/2026	05/01/2024 / jaswal	02/09/2024 / jaswal	M5820

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3980-01 / Stannous Chloride (cs/4x500g)	232820	08/31/2028	04/30/2024 / mohan	04/25/2024 / mohan	M5882

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3624-05 / Sodium Chloride, Crystal (cs/4x2.5kg)	0000281938	07/06/2026	04/30/2024 / mohan	04/25/2024 / mohan	M5884

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57003 / Lithium, Li, 100 ml, 1000 PPM	102423	10/24/2026	02/20/2024 / Jaswal	01/10/2024 / Jaswal	M5923

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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.	57016 / S, 1000 PPM, 125 ml	122923	03/31/2026	03/31/2025 / kareem	06/11/2024 / Jaswal	M5969

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57003 / Li, 1000 PPM, 125 ml	061224	06/21/2027	07/01/2024 / Jaswal	07/01/2024 / Jaswal	M5970

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57003 / Li, 1000 PPM, 125 ml	061224	06/21/2027	06/06/2025 / Janvi	07/01/2024 / Jaswal	M5971

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	08/05/2026	08/06/2025 / Janvi	02/22/2024 / Jaswal	M5979

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

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-3 / CLP CAL SOLUTION #3, 125mL	T2-MEB727800	07/30/2026	07/30/2025 / Janvi	02/22/2024 / kareem	M5998

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGSR1-1 / Strontium, 125 ml, 1000 PPM	U2-SR730227	03/03/2028	01/14/2025 / Jaswal	08/05/2024 / Jaswal	M6019

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57023 / V, 1000 PPM, 125 ml	062424	06/24/2027	09/28/2024 / jaswal	08/05/2024 / Jaswal	M6021

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57081 / Tl, 1000 PPM, 125 ml	0624724	06/27/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6023

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57182 / Pb, 10000 PPM, 125 ml	110923	11/09/2026	12/05/2024 / janvi	08/05/2024 / Jaswal	M6026

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57028 / Ni, 1000 PPM, 125 ml	062024	06/20/2027	06/04/2025 / Janvi	08/05/2024 / Jaswal	M6027

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57048 / Cd, 1000 PPM, 125 ml	070124	07/01/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6028

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57047 / Ag, 1000 PPM, 125 ml	122823	12/28/2026	08/05/2024 / kareem	08/05/2024 / Jaswal	M6030

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57056 / Ba, 1000 PPM, 125 ml	010924	01/09/2027	01/14/2025 / Jaswal	08/05/2024 / Jaswal	M6032

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CHEM-QC-4 / CHEM-QC-4, Second Source, 1000 ug/ml, B, Mo, Si, Sn, Ti	V2-MEB746173	01/29/2026	01/29/2025 / JANVI	08/22/2024 / Jaswal	M6058

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	Z9651Q / CHEM-CLP-4/.25L	V2-MEB746762	09/06/2029	01/23/2025 / kareem	09/19/2024 / kareem	M6077

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

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGSI1-1 / SILICON 125mL 1000ug/mL	V2-SI744713	07/10/2029	01/14/2025 / Jaswal	10/03/2024 / Jaswal	M6137

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58120 / Ca, 10000 PPM, 500 ml	121824	12/18/2027	04/17/2025 / Janvi	01/13/2025 / Jaswal	M6138

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58126 / Fe, 10000 PPM, 500 ml	011025	01/10/2028	06/25/2025 / Janvi	01/13/2025 / Jaswal	M6140

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

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	22G2862015	02/17/2026	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 #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	10/09/2025	03/10/2025 / Eman	02/02/2025 / Sagar	M6158

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Al, 10000 PPM, 500 ml	011325	03/18/2026	03/18/2025 / kareem	02/09/2025 / kareem	M6159

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57051 / Sb, 1000 PPM, 125 ml	071724	07/17/2027	03/24/2025 / kareem	10/18/2024 / kareem	M6160

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-5 / ICV (HG) STOCK SOLN	ICV 5 0415	12/31/2025	05/01/2025 / mohan	03/30/2024 / mohan	M6161

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	06/08/2026	06/09/2025 / jaswal	06/06/2025 / jaswal	M6163

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	QCP-CICV-2-125ML / EPA CLP ICP Verification Standard2	U2-MEB733713	06/08/2026	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	06/08/2026	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	BA-2186-03 / Hydrogen Peroxide (cs/4x4L)	24D1961001	10/16/2025	06/25/2025 /	05/20/2025 / Sagar	M6170

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	011525	01/15/2028	07/15/2025 /	02/13/2025 / Janvi	M6171

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	V2-MEB742428	07/31/2026	07/31/2025 / Janvi	05/05/2025 / Janvi	M6174

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	092724	09/27/2027	08/06/2025 / Janvi	08/06/2025 / Janvi	M6176

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ Lead (Pb) 1000PPM	031525	03/15/2028	08/06/2025 / Janvi	08/06/2025 / Janvi	M6177

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57042 / Mo, 1000 PPM, 125 ml	080528	08/05/2028	08/06/2025 / Janvi	08/06/2025 / Janvi	M6178

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	08/05/2026	08/06/2025 / Janvi	06/02/2024 / Janvi	M6179

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	W2-MEB752149	02/05/2026	08/06/2025 / Janvi	07/22/2025 / Janvi	M6180

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	V2-MEB7433480	02/05/2026	08/06/2025 / Janvi	07/22/2025 / Janvi	M6181

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	02/05/2026	08/06/2025 / Janvi	03/06/2024 / Janvi	M6182

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CHEMICAL RECEIPT LOG BOOK

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	02/05/2026	08/06/2025 / Janvi	03/06/2024 / Janvi	M6184

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	01/28/2026	08/29/2025 / Sagar	08/08/2025 / Sagar	M6187

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	H330-500 / HYDROXYLAMINE HYDROCHLORIDE ACS 500G	243373	02/03/2026	09/04/2025 / mohan	08/04/2025 / mohan	M6196

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)	24D1562005	02/10/2026	09/11/2025 / Sagar	08/25/2025 / Sagar	M6200

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

Certificate of Analysis

ThermoFisher SCIENTIFIC

M5882 M3

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120633

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	T142	Quality Test / Release Date	08/17/2023
Lot Number	232820		
Description	STANNOUS CHLORIDE, DIHYDRATE CERTIFIED ACS (Suitable for Mercury Determination)		
Country of Origin	United States	Suggested Retest Date	Aug/2028
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear crystals
ASSAY	%	Inclusive Between 98 - 103	100.65
CALCIUM	%	<= 0.005	0.0017
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	%	<= 0.003	0.0011
LEAD (Pb)	%	<= 0.01	0.0006
MERCURY (Hg)	ppm	<= 0.05	<0.05
POTASSIUM (K)	%	<= 0.005	0.0001
SODIUM (Na)	%	<= 0.01	<0.01
SOLUBILITY IN HCL	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	PASS/FAIL	= P.T. (ABOUT 0.003%)	P.T. (ABOUT 0.003%)

Harout Sahagian - Quality Control Supervisor - Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6032

R: 8/5/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

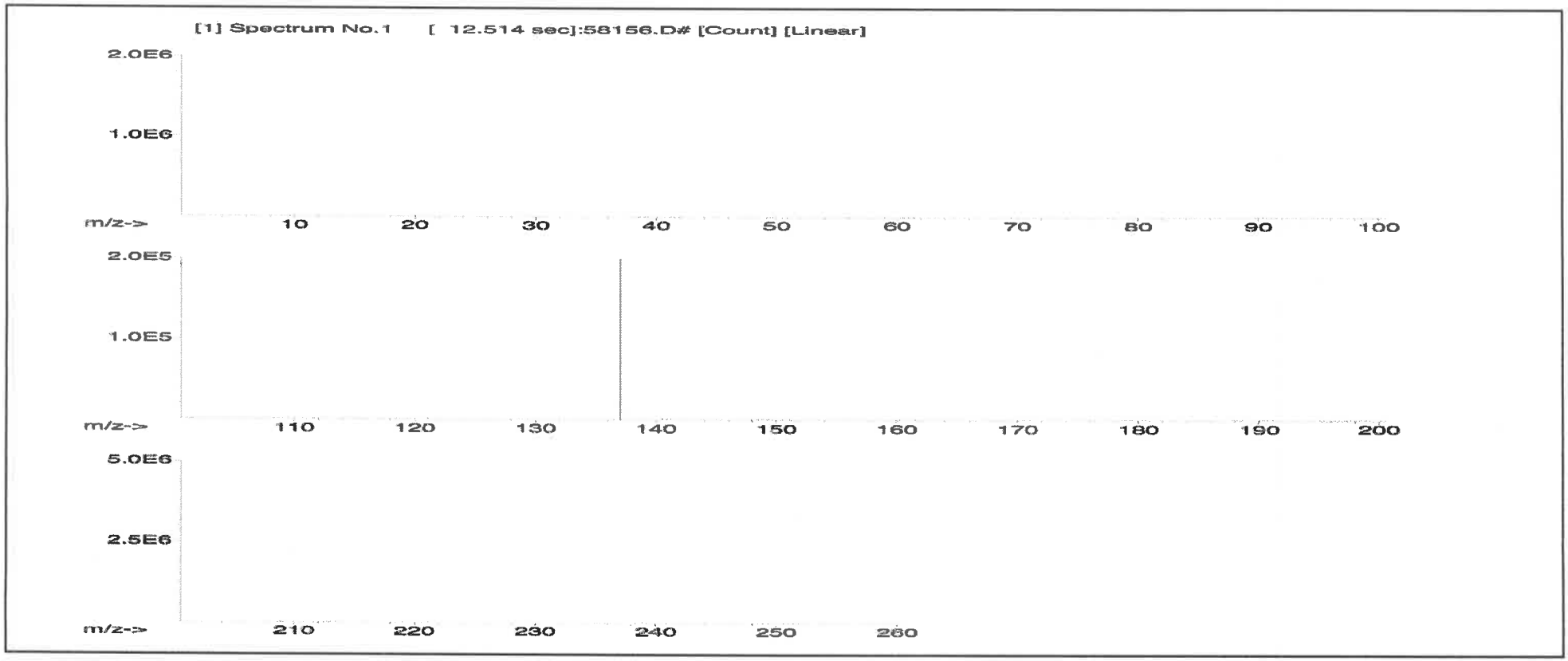
CERTIFIED WEIGHT REPORT:

Part Number:	**57056**		**Lot #**		
Lot Number:	**010924**	**Solvent:**	24002546	Nitric Acid	
Description:	**Barium (Ba)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	010927				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Giovanni Esposito

Formulated By:	Giovanni Esposito	010924
Reviewed By:	Pedro L. Rentas	010924

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Barium nitrate (Ba)	IN023	BAD022019A1	1000	99.999	0.10	52.3	3.82417	3.82441	**1000.1**	**2.0**	10022-31-8	0.5 mg/m3	orl-rat 355 mg/kg	3104a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
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Certified Reference Material CRM

R 8/5/24

M6028

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

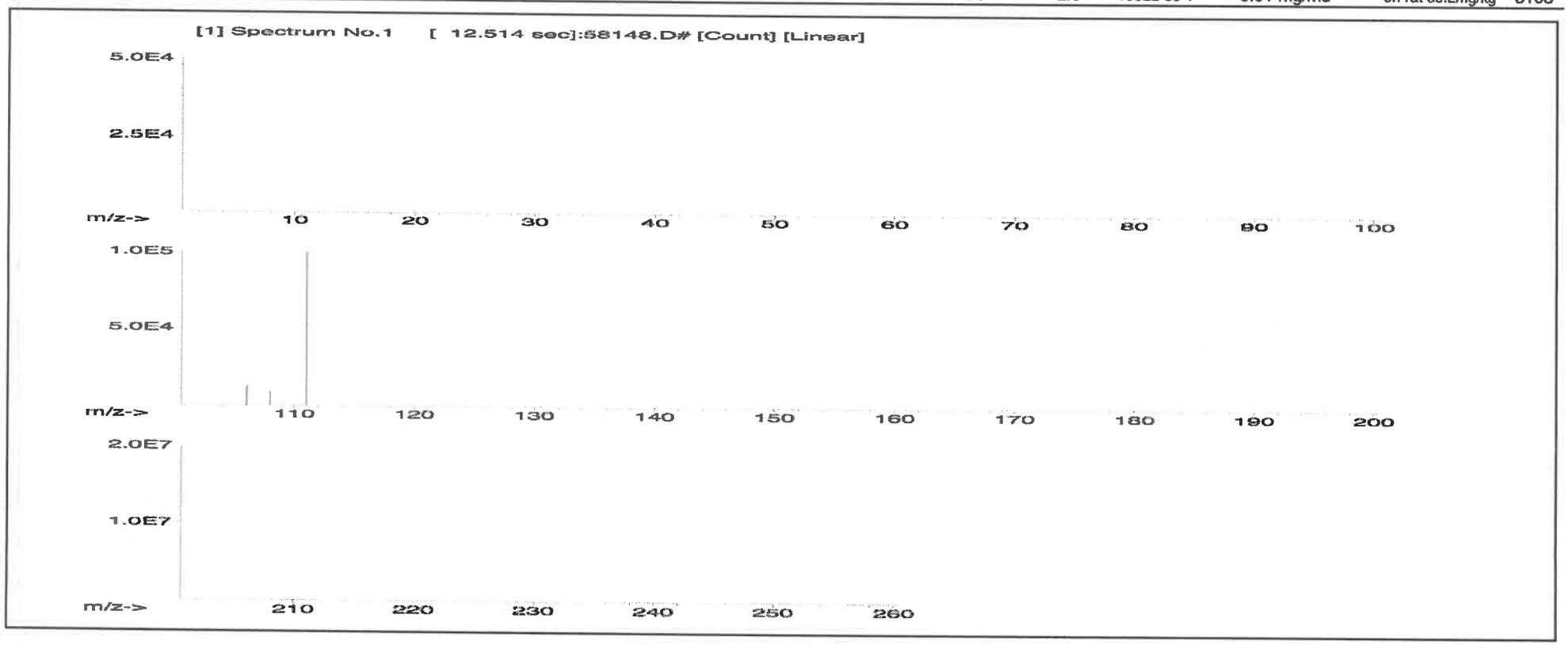
CERTIFIED WEIGHT REPORT:

Part Number:	**57048**		**Lot #**		
Lot Number:	**070124**	**Solvent:**	24002546	Nitric Acid	
Description:	**Cadmium (Cd)**	2%	40.0 (mL)	Nitric Acid	
Expiration Date:	070127				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	070124
Reviewed By:	Pedro L. Rentas	070124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cadmium nitrate tetrahydrate (Cd)	IN024	CDM092021A1	1000	99.999	0.10	36.5	5.4797	5.4804	**1000.1**	**2.0**	10022-68-1	0.01 mg/m3	orl-rat 60.2mg/kg	3108



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	T	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
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www.absolutestandards.com

Certified Reference Material CRM

R: 8/5/24

M6026

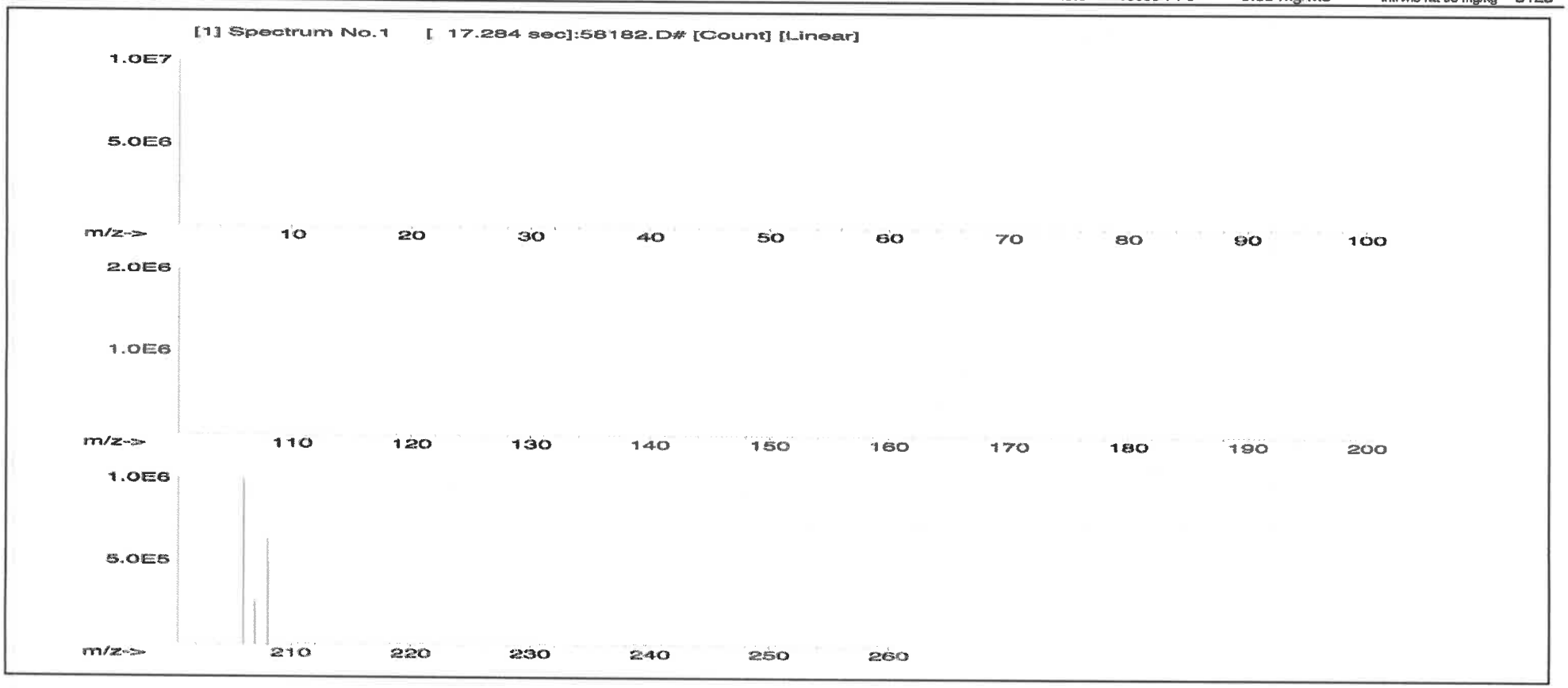
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**57182**			**Lot #**	
Lot Number:	**110923**	**Solvent:**	24002546	Nitric Acid	
Description:	**Lead (Pb)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	110926				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawence Barry	110923
Reviewed By:	Pedro L. Rentas	110923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	10000	99.999	0.10	62.5	32.0006	32.0040	**10001.1**	**20.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
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* All Standards should be stored with caps tight and under appropriate laboratory conditions.
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ThermoFisher SCIENTIFIC

M4913-16

MB

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	P279	Quality Test / Release Date	01/12/2021
Lot Number	210306		
Description	POTASSIUM PERMANGANATE, A.C.S.		
Country of Origin	United States	Suggested Retest Date	Jan/2026

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Dark purple to purple green crystals
ASSAY	%	>= 99	99.3
CHLORIDE & CHLORATE	%	<= 0.005	<0.005
IDENTIFICATION	PASS/FAIL	= PASS TEST	pass test
INSOLUBLE MATTER	%	<= 0.2	<0.2
MERCURY (Hg)	ppm	<= 0.05	<0.004
SULFATE (SO4)	%	<= 0.02	<0.02

Julian Burton

Julian Burton - Quality Control Manager – Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

M5062
M5063
M3

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Mass Spec Solution
Catalog Number:	MSHG-10PPM
Lot Number:	S2-HG709270
Matrix:	10% (v/v) HCl
Value / Analyte(s):	10 µg/mL ea: Mercury
Starting Material:	Hg metal
Starting Material Lot#:	1959
Starting Material Purity:	99.9994%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10.001 ± 0.053 µg/mL

Density: 1.020 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
Hg	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance.

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Ag		0.000011	M	Eu	<	0.000201	O	Na		0.000004	M	Se	<	0.015915	O	Zn	<	0.001510
O	Al		0.000001	O	Fe		0.000001	M	Nb	<	0.000201	O	Si		0.000005	M	Zr	<	0.000201
M	As	<	0.000402	M	Ga	<	0.000201	M	Nd	<	0.000201	M	Sm	<	0.000201				
M	Au	<	0.003631	M	Gd	<	0.000201	M	Ni	<	0.000402	M	Sn	<	0.001007				
M	B	<	0.001208	M	Ge	<	0.000201	M	Os	<	0.000605	M	Sr	<	0.000201				
M	Ba	<	0.000201	M	Hf	<	0.000201	O	P	<	0.032370	M	Ta	<	0.000201				
M	Be	<	0.000201	s	Hg	<		M	Pb	<	0.000201	M	Tb	<	0.000201				
M	Bi	<	0.000201	M	Ho	<	0.000201	M	Pd	<	0.000403	M	Te	<	0.002216				
O	Ca		0.000007	M	In	<	0.000201	M	Pr	<	0.000201	M	Th	<	0.000201				
M	Cd	<	0.000201	M	Ir	<	0.000201	M	Pt	<	0.000402	M	Ti	<	0.000402				
M	Ce	<	0.000201	O	K		0.000020	M	Rb	<	0.000201	O	Tl	<	0.016508				
M	Co	<	0.000201	M	La	<	0.000201	M	Re	<	0.000201	M	Tm	<	0.000201				
O	Cr	<	0.003021	O	Li	<	0.000107	M	Rh	<	0.000201	M	U	<	0.008058				
M	Cs	<	0.001208	M	Lu	<	0.000201	M	Ru	<	0.000201	M	V	<	0.000201				
M	Cu	<	0.000402	O	Mg		0.000001	O	S	<	0.053950	M	W	<	0.000604				
M	Dy	<	0.000201	M	Mn	<	0.000604	M	Sb	<	0.001208	M	Y	<	0.000201				
M	Er	<	0.000201	M	Mo		0.000009	M	Sc	<	0.000201	M	Yb	<	0.000201				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 200.59 +2 4 Hg(OH)(aq) 1+

Chemical Compatibility - Stable in HNO_3. Avoid basic media forming insoluble carbonate. The sulfide, basic carbonate, oxalate, phosphate, arsenite, arsenate and iodide are insoluble in water.

Stability - 2-100 ppb levels not stable in 1% HNO_3 / LDPE container, stable in 10% HNO_3 packaged in borosilicate glass. 1-100 ppm levels stable in 7% HNO_3 packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10% HNO_3 / LDPE container.

Hg Containing Samples (Preparation and Solution) - Metal (soluble in HNO_3); Oxide (Soluble in HNO_3); Ores and Organic based (The literature has more references to the preparation of Hg containing samples than any other element. Please consult the literature for your specific sample type, since such preparations are prone to error. Or e-mail our technical staff and we will contact you to discuss your particular sample preparation questions in further detail.).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 202 amu	9 ppt	n/a	186W16O
ICP-OES 184.950 nm	0.03 / 0.005 µg/mL	1	
ICP-OES 194.227 nm	0.03 / 0.005 µg/mL	1	V
ICP-OES 253.652 nm	0.1 / 0.03 µg/mL	1	Ta, Co, Th ,Rh , Fe, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 22, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- September 22, 2026

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5467 R: 03/01/23 (LA)

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57058
Lot Number: 020623
Description: Cerium (Ce)

Expiration Date: 020626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

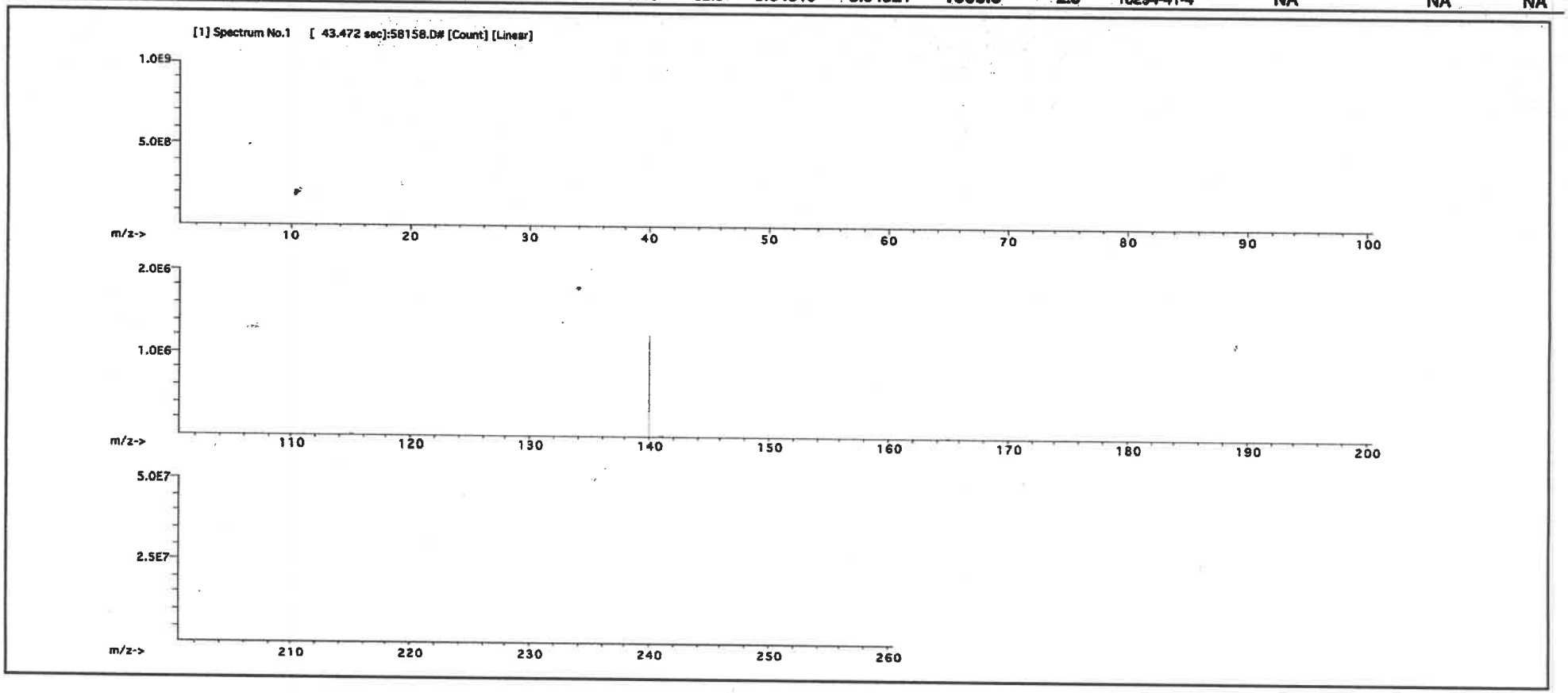
Weight shown below was diluted to (mL): 1000.12 0.058 Flask Uncertainty

		Lot #	
Solvent:	21110221	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	020623
Reviewed By:	Pedro L. Rentas	020623

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cerium nitrate hexahydrate (Ce)	IN146	Z512CEB1	1000	99.999	0.10	32.8	3.04919	3.04921	**1000.0**	**2.0**	10294-41-4	NA	NA	NA



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
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Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

RD: 06/12/2023, M5581, M5582, M5583, M5584, M5585

JENSEN INERT PRODUCTS

MATERIAL CERTIFICATE OF COMPLIANCE

DATE: JUNE 12, 2023

CUSTOMER:	PCI SCIENTIFIC SUPPLY, INC
PURCHASE ORDER NO.	6054931
CATALOG NO.	BOI5021-450L
PRODUCT DESCRIPTION:	BOILING STONES, TFE, 454GMS
QUANTITY:	10 EACH
LOT NO.	W126678
SPECIFICATION (S):	Made from Virgin PTFE Resin

We certify that we have complied with the terms and conditions of the above Purchase Order and the Part Specifications in the manufacturing of the above product.

Laura Valencia

Laura Valencia
Quality Assurance Inspector

F:U:J:CF:PCISCI:COC-68118-BOI5021-061223

3773 NW 126th Avenue • Coral Springs, Florida 33065 • Fax (954) 344-2008 • 1-800 446-3781
Email: jensen@jenseninert.com Visit our Web Site at www.jenseninert.com

RD: 06/12/2023, M5581, M5582, M5583, M5584, M5585

JENSEN INERT PRODUCTS

MATERIAL CERTIFICATE OF COMPLIANCE

DATE: JUNE 12, 2023

CUSTOMER:	PCI SCIENTIFIC SUPPLY, INC
PURCHASE ORDER NO.	6054931
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Laura Valencia

Laura Valencia
Quality Assurance Inspector

F:U:J:CF:PCISCI:COC-68118-BOI5021-061223

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Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5658 R ! 8/25/23

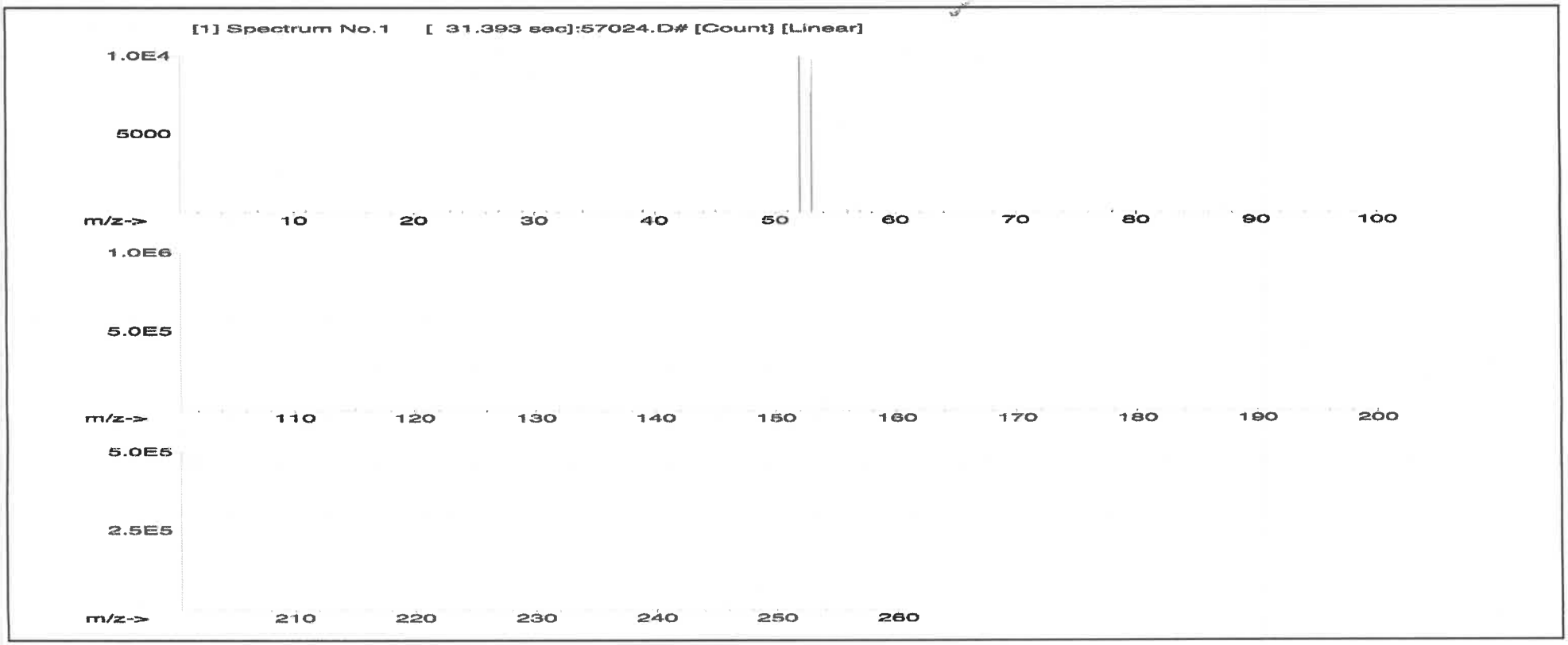
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58024**	21110221	Nitric Acid	
Lot Number:	**060523**			
Description:	**Chromium (Cr)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	060523
Reviewed By:	Pedro L. Rentas	060523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Chromium(III) nitrate nonahydrate (Cr)	58124	071122	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	7789-02-8	0.5 mg(Cr)/m3	orl-rat 3250 mg/kg	3112a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	T	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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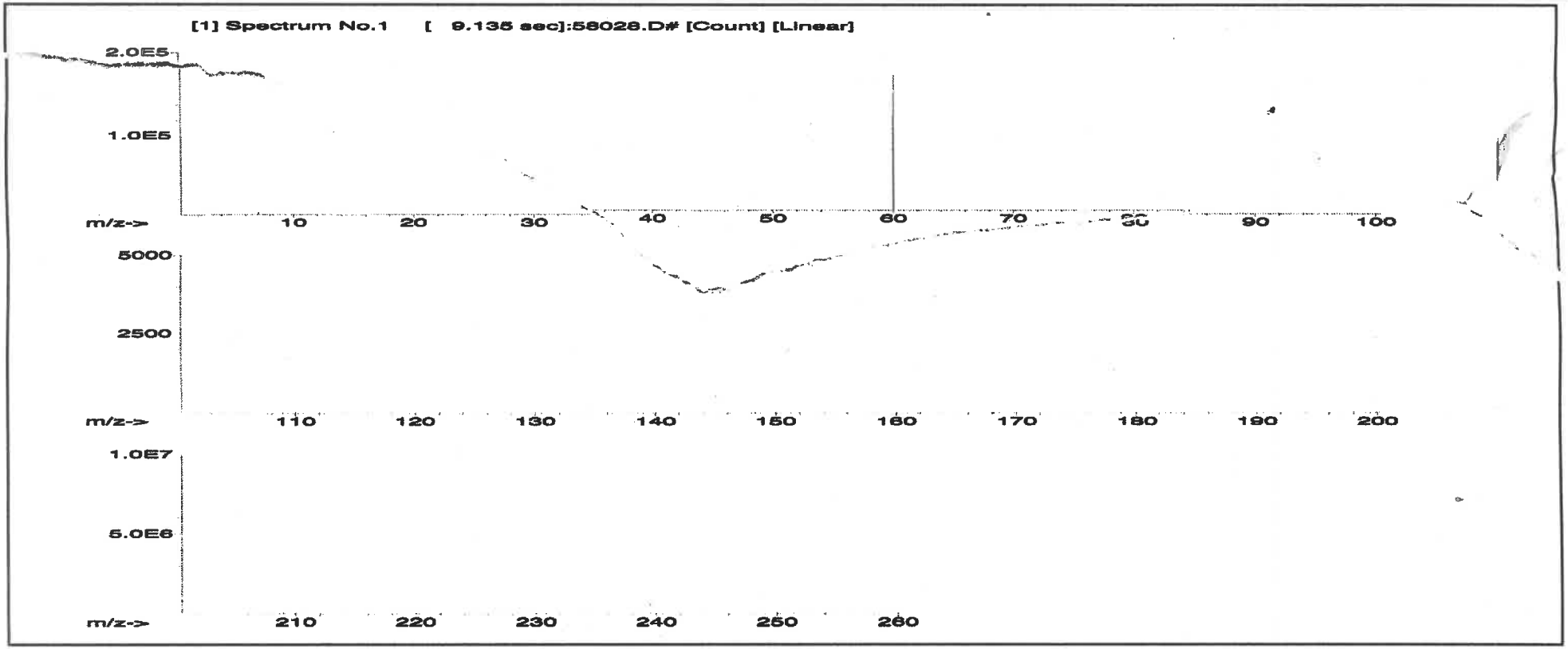
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57028**	24002546	Nitric Acid	
Lot Number:	**091223**			
Description:	**Nickel (Ni)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	091226			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	091223
Reviewed By:	Pedro L. Rentas	091223

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Nickel(II) nitrate hexahydrate (Ni)	58128	062023	0.1000	200.0	0.084	1000	10000.4	**1000.0**	**2.2**	13478-00-7	1 mg/m3	orl-rat 1620 mg/kg	3136



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	T	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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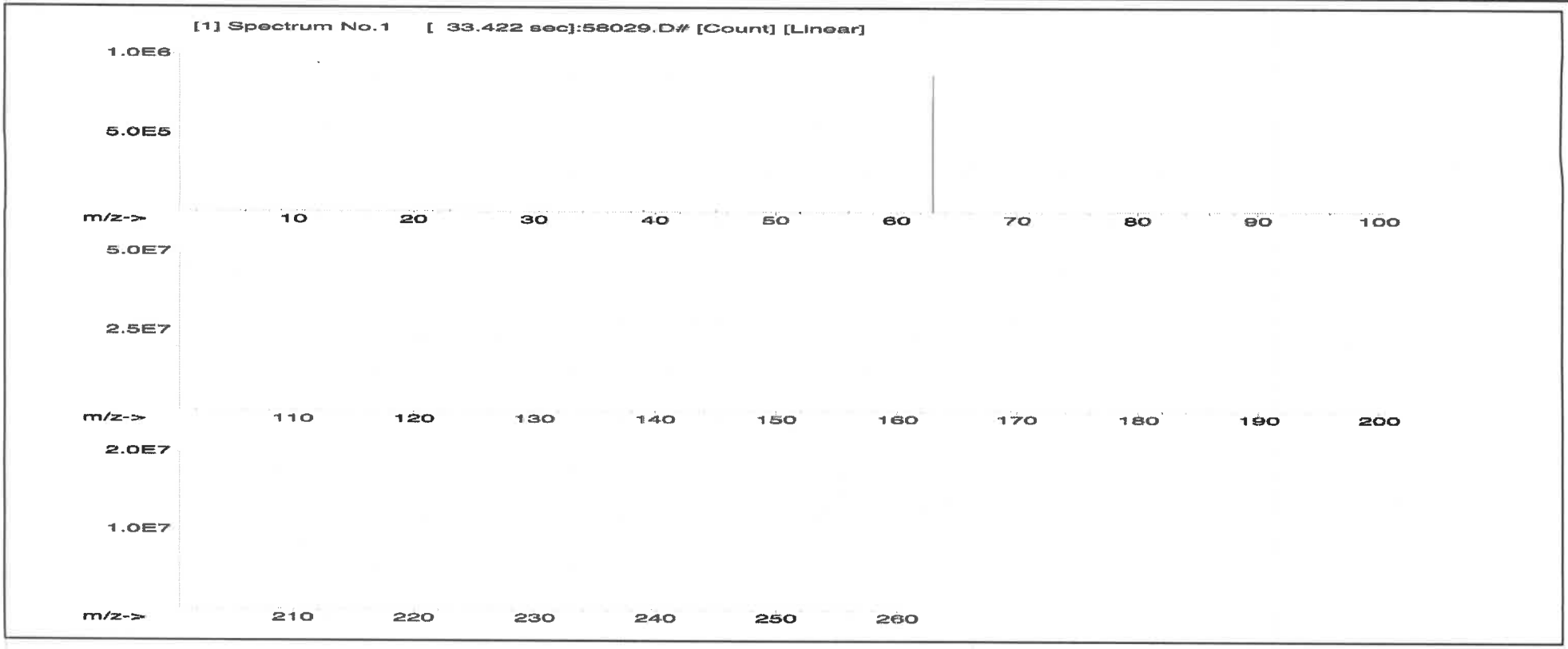
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58029**	21110221	Nitric Acid	
Lot Number:	**071723**			
Description:	**Copper (Cu)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	071726			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	071723
Reviewed By:	Pedro L. Rentas	071723

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Copper(II) nitrate trihydrate (Cu)	58129	022723	0.1000	200.0	0.084	1000	10000.5	**1000.0**	**2.2**	10031-43-3	1 mg/m3	orl-rat 794 mg/kg	3114



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	T	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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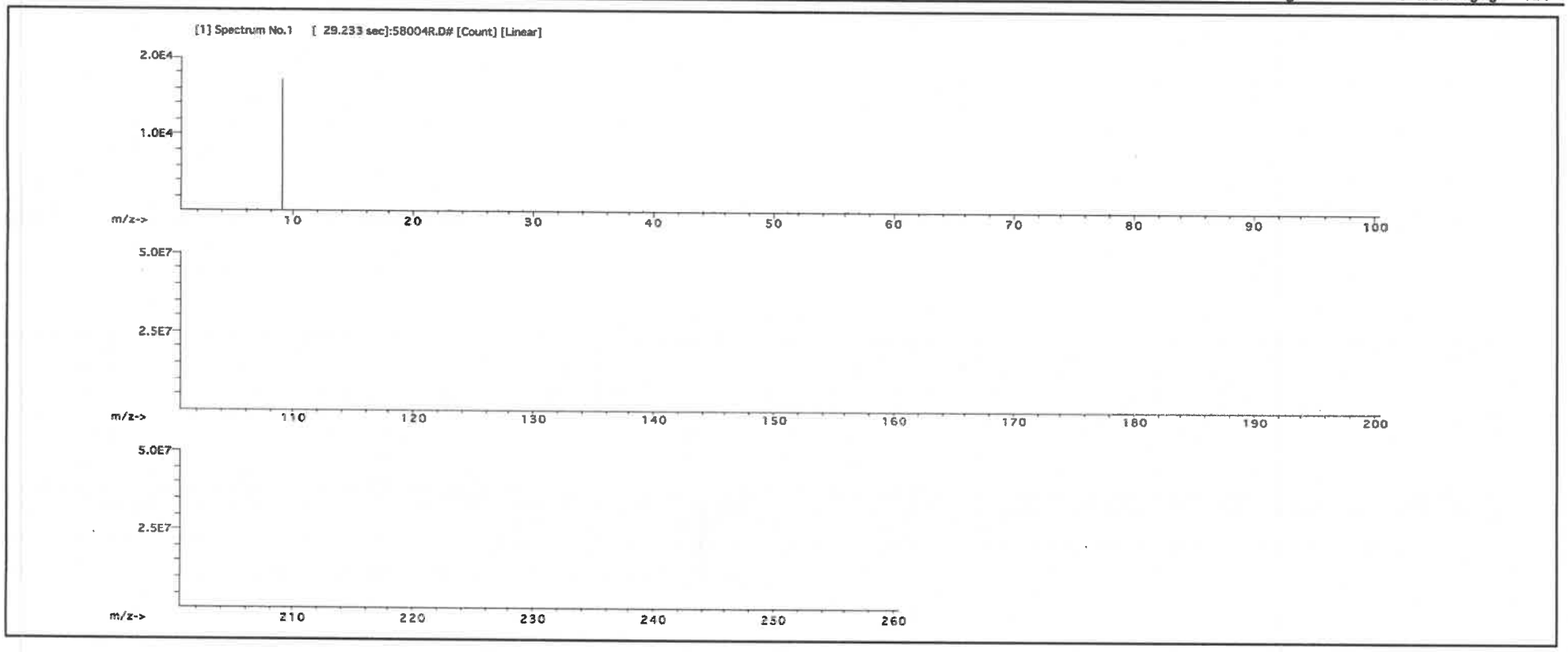
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57004**	24002546	Nitric Acid	
Lot Number:	**102523**			
Description:	**Beryllium (Be)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	102526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Beryllium nitrate (Be)	58104	091423	0.1000	200.0	0.084	1000	10001.5	**1000.0**	**2.2**	13597-99-4	0.2ug/m3	intrvns-rat 3.16mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	T	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

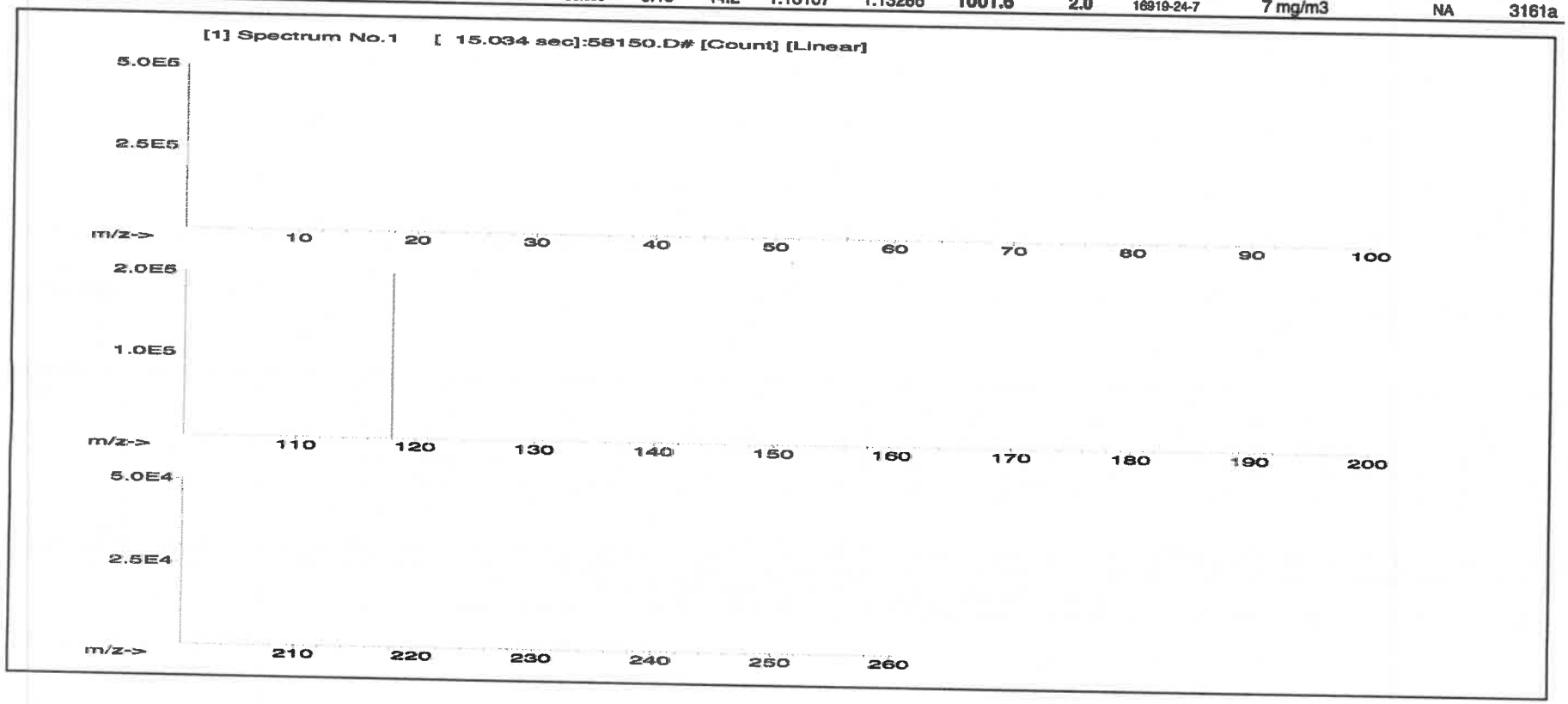
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	Lot #	
Solvents:	21110221	Nitric Acid
	22D0562008	Hydrochloric acid
2%	10.0	Nitric Acid
6%	30.0	Hydrochloric acid
	(mL)	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Benson Chan	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium hexafluorostannate(IV) (Sn)	IN010	SND042023A1	1000	99.999	0.10	44.2	1.13107	1.13286	**1001.6**	**2.0**	16919-24-7	7 mg/m3	NA	3161a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<500	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	T	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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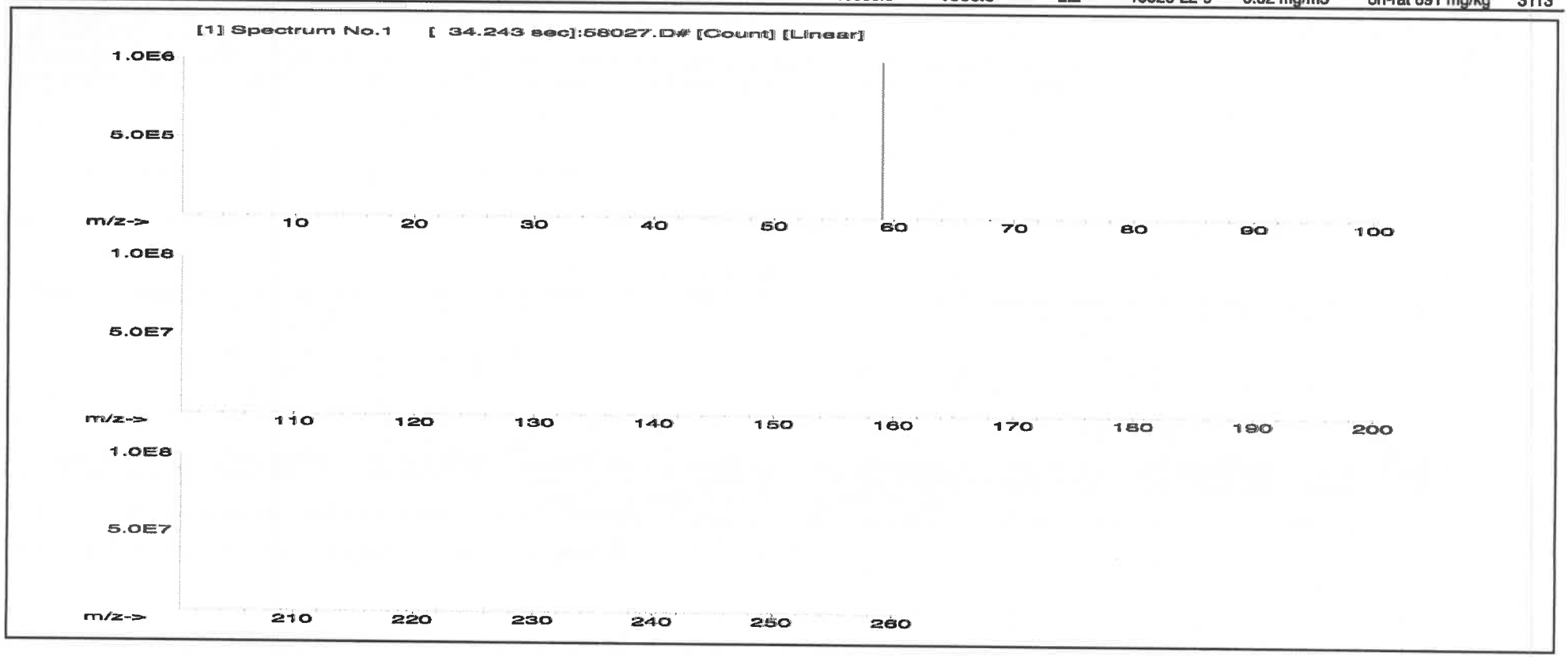
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**57027**	24002546	Nitric Acid		
Lot Number:	**091923**				
Description:	**Cobalt (Co)**	2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	091926				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	091923
Reviewed By:	Pedro L. Rentas	091923

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cobalt(II) nitrate hexahydrate (Co)	58127	050923	0.1000	200.0	0.084	1000	10000.0	**1000.0**	**2.2**	10026-22-9	0.02 mg/m3	orl-rat 691 mg/kg	3113



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	T	Gé	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* All standard containers are meticulously cleaned prior to use.
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* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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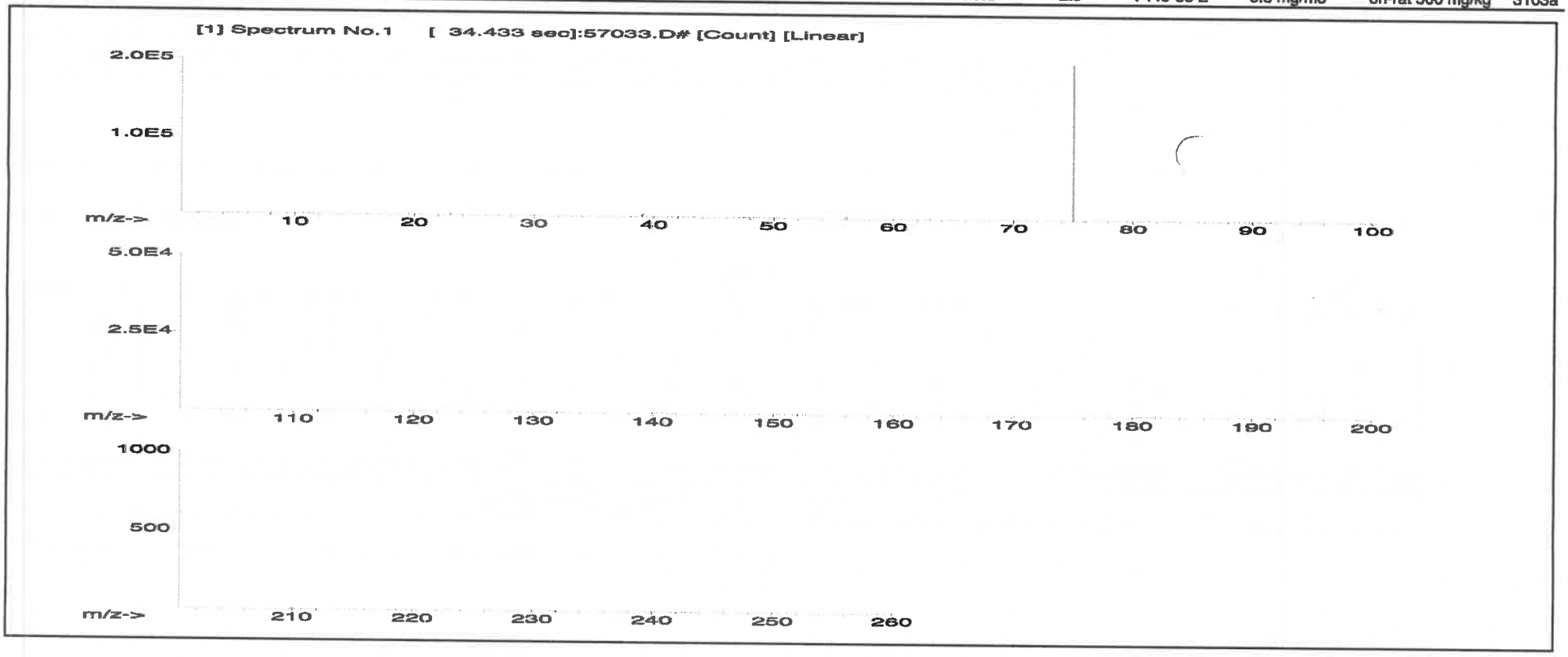
CERTIFIED **WEIGHT** REPORT:

		Lot #	Solvent:		
Part Number:	**57033**	24002546	Nitric Acid		
Lot Number:	**111323**				
Description:	**Arsenic (As)**	2.0%	80.0 (mL)	Nitric Acid	
Expiration Date:	111326				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty		

Formulated By:	Lawrence Barry	111323
Reviewed By:	Pedro L. Rentas	111323

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Arsenic (As)	58133	020522	0.1000	400.0	0.084	1000	10001.0	**1000.0**	**2.0**	7440-38-2	0.5 mg/m3	orl-rat 500 mg/kg	3103a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	T	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge*	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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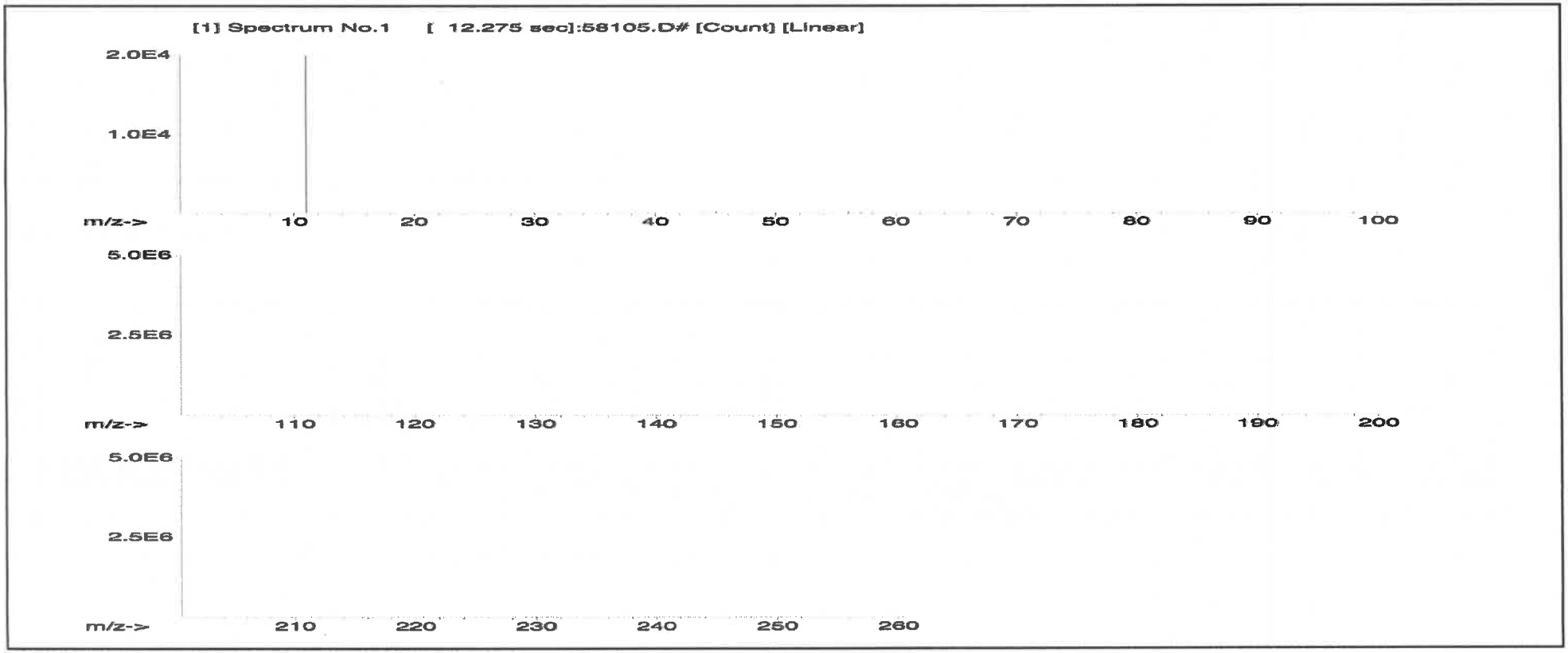
CERTIFIED WEIGHT REPORT:

Part Number:	**57005**		**Solvent:**	MKBQ8597V	Ammonium hydroxide
Lot Number:	**071123**				
Description:	**Boron (B)**		2.0%	40.0 (mL)	Ammonium hydroxide
Expiration Date:	071126				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	1999.48	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Boric acid (B)	IN018	BV092016A1	1000	99.9999	0.10	17.3	11.55772	11.56201	**1000.4**	**2.0**	10043-35-3	2 mg/m3	orl-rat 2660 mg/kg	3107



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	T	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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CERTIFIED WEIGHT REPORT:

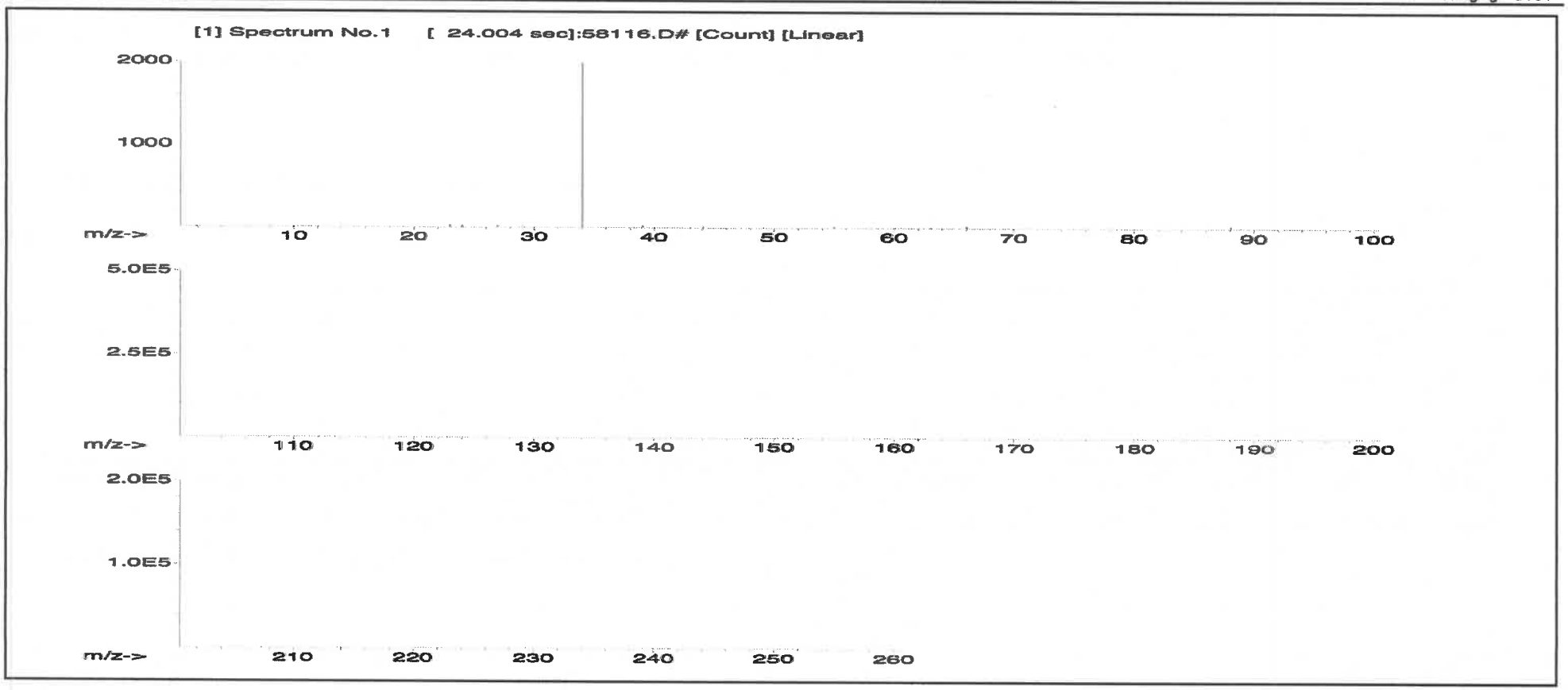
Part Number: 57116
Lot Number: 071123
Description: Sulfur (S)

Lot #
Solvent: 071123 ASTM Type 1 Water

Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB 5E-05 Balance Uncertainty
Weight shown below was diluted to (mL): 1999.48 0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	10000	99.9	0.10	24.3	82.4675	82.4682	**10000.1**	**20.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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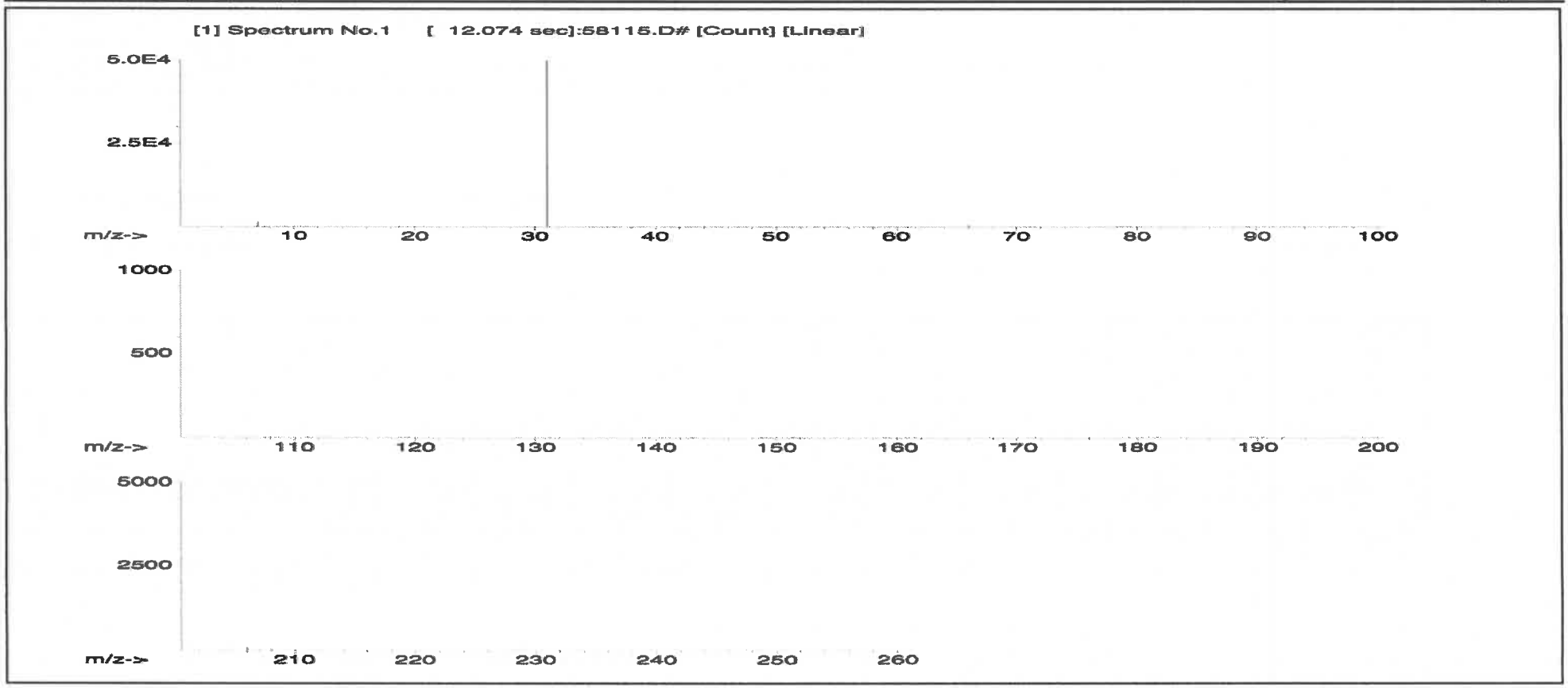
CERTIFIED WEIGHT REPORT:

Part Number:	**57015**		**Lot #**		
Lot Number:	**091123**	**Solvent:**	24002546	Nitric Acid	
Description:	**Phosphorous (P)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	091126				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	091123
Reviewed By:	Pedro L. Rentas	091123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	1000	99.999	0.10	27.5	7.2729	7.2730	**1000.0**	**2.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/k	3186



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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Sodium Chloride, Crystal
BAKER ANALYZED® A.C.S. Reagent

MT884
MB

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Material No.: 3624-01
Batch No.: 0000281938
Manufactured Date: 2021-06-07
Retest Date: 2026-06-07
Revision No.: 1

Certificate of Analysis

Test	Specification	Result
Assay (NaCl) (by Ag titrn)	≥ 99.0 %	100.0 %
pH of 5% Solution at 25°C	5.0 - 9.0	6.3
Insoluble Matter	≤ 0.005 %	0.003 %
Iodide (I)	≤ 0.002 %	< 0.002 %
Bromide (Br)	≤ 0.01 %	< 0.01 %
Chlorate and Nitrate (as NO_3)	≤ 0.003 %	< 0.001 %
ACS - Phosphate (PO_4)	≤ 5 ppm	< 5 ppm
Sulfate (SO_4)	≤ 0.004 %	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
ACS - Heavy Metals (as Pb)	≤ 5 ppm	< 5 ppm
Iron (Fe)	≤ 2 ppm	< 1 ppm
Calcium (Ca)	≤ 0.002 %	< 0.001 %
Magnesium (Mg)	≤ 0.001 %	< 0.001 %
Potassium (K)	≤ 0.005 %	0.001 %

For Laboratory,Research,or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs
Country of Origin: USA
Packaging Site: Paris Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
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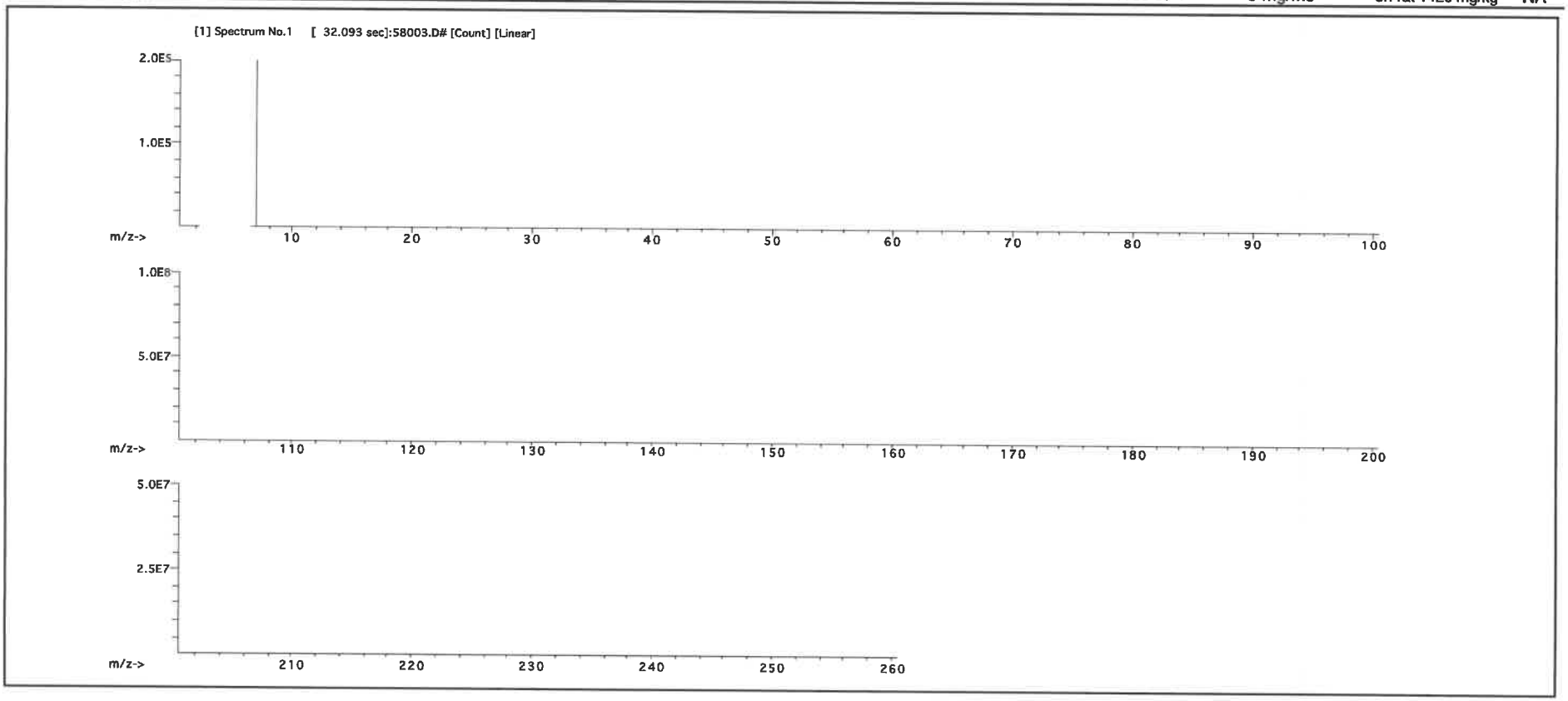
CERTIFIED WEIGHT REPORT:

Part Number:	**57003**		**Lot #**		
Lot Number:	**102423**	**Solvent:**	24002546	Nitric Acid	
Description:	**Lithium (Li)**		2%	40.0 (mL)	Nitric Acid
Expiration Date:	102426				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	102423
Reviewed By:	Pedro L. Rentas	102423

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lithium nitrate (Li)	IN019	LIZ042018A1	1000	99.999	0.10	10.0	20.0004	20.0006	**1000.0**	**2.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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M5962 R! 06/14/24.

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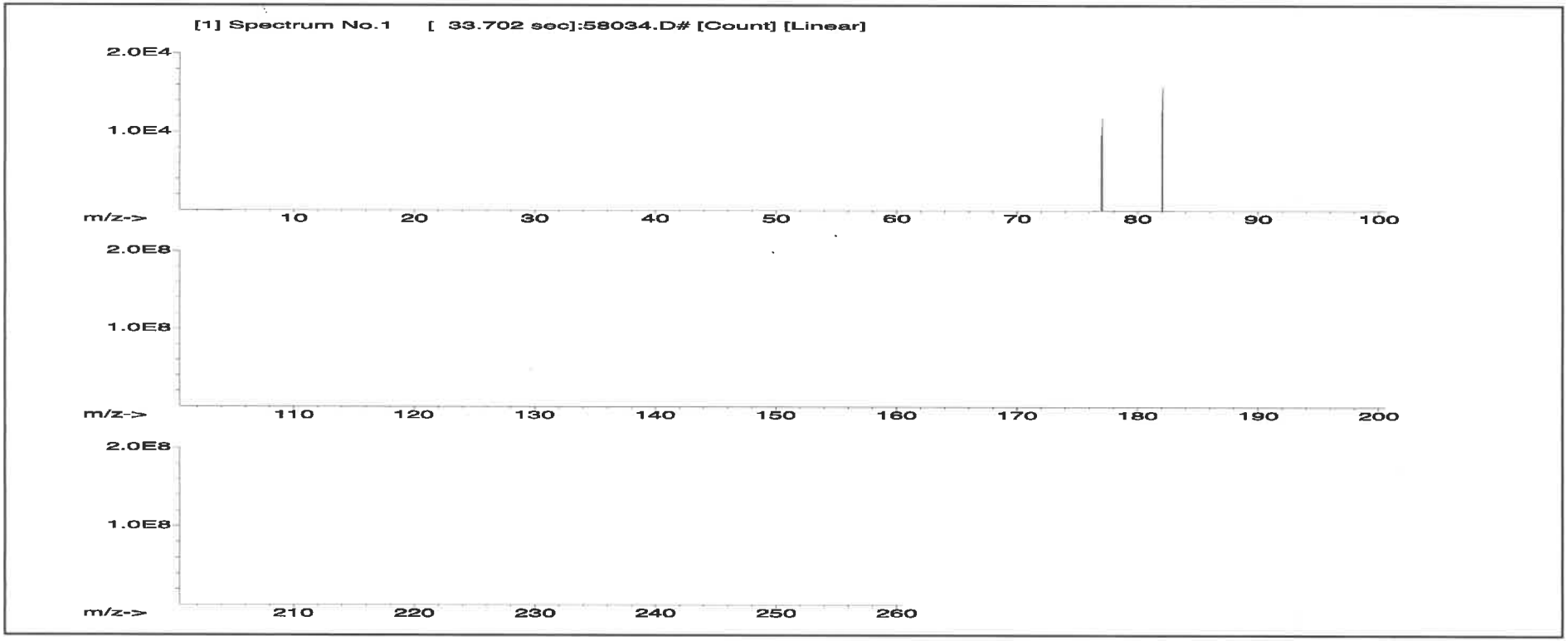
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57034**	24002546	Nitric Acid	
Lot Number:	**060624**			
Description:	**Selenium (Se)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060627			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Formulated By:	Benson Chan	060624
Reviewed By:	Pedro L. Rentas	060624

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Selenium (Se)	58134	071223	0.1000	200.0	0.084	1000	10002.5	**1000.0**	**2.2**	7782-49-2	0.2 mg/m3	orl-rat 6700 mg/kg	3149



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																		
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	T	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5969 R: 06/11/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

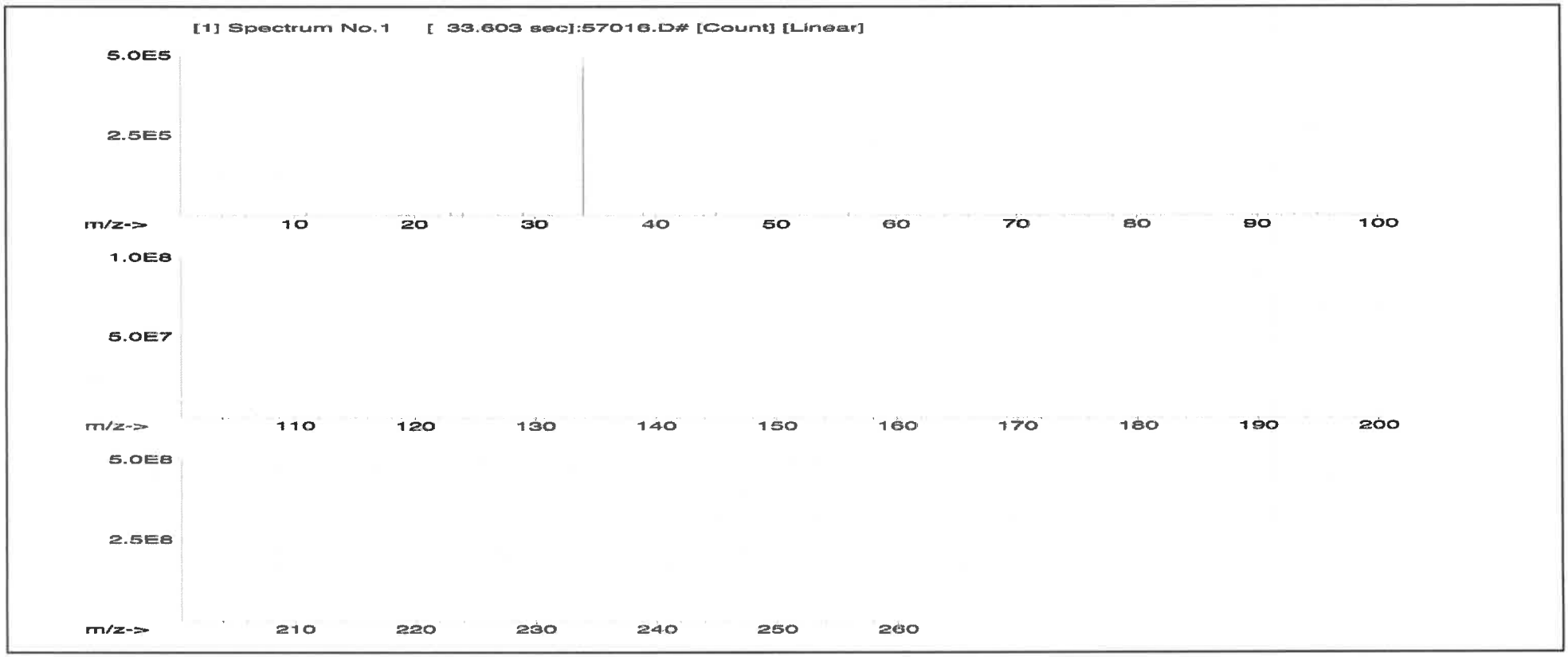
CERTIFIED WEIGHT REPORT:

Part Number:	**57016**	**Solvent:**	122923	ASTM Type 1 Water
Lot Number:	**122923**			
Description:	**Sulfur (S)**			
Expiration Date:	122926			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty	

Lot #

Formulated By:	Benson Chan	122923
Reviewed By:	Pedro L. Rentas	122923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	1000	99.9	0.10	24.3	16.4979	16.4980	**1000.0**	**2.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



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800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5970, M5971 R: 7/01/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

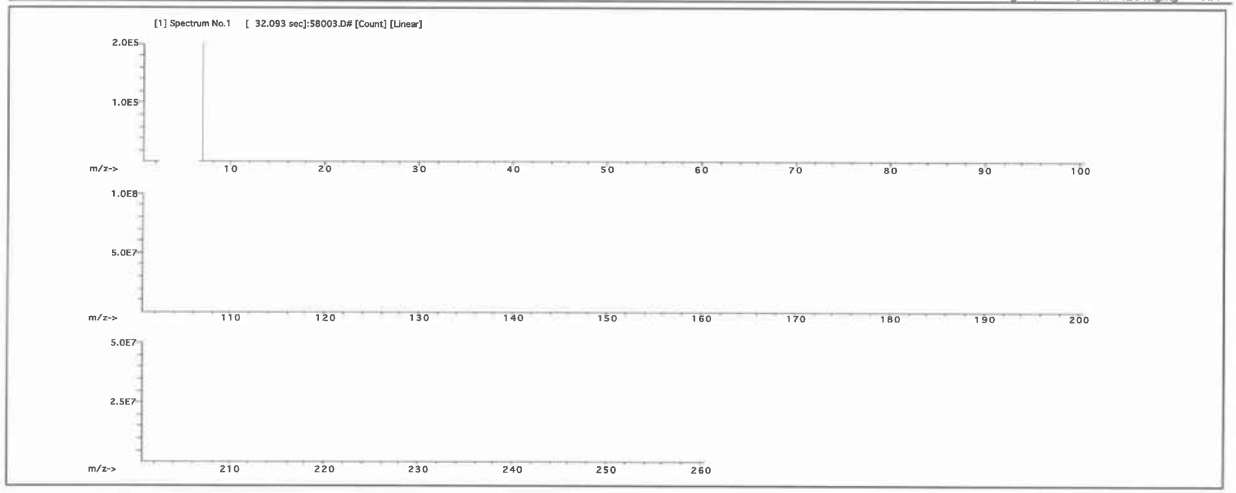
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:
Part Number:	**57003**	24002546	Nitric Acid
Lot Number:	**062124**		
Description:	**Lithium (Li)**		
		2.0%	5.0 (mL) Nitric Acid
Expiration Date:	062127		
Recommended Storage:	Ambient (20 °C)		
Nominal Concentration (µg/mL):	**1000**		
NIST Test Number:	6UTB	5E-05 Balance Uncertainty	
Volume shown below was diluted to (mL):	250.11	0.016 Flask Uncertainty	

Giovanni Esposito
Formulated By: Giovanni Esposito 062124

Pedro Rentas
Reviewed By: Pedro L. Rentas 062124

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lithium nitrate (Li)	58103	070622	0.1000	25.0	0.004	1000	10000.4	**1000.0**	**2.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

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Certified by:

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Certified Reference Material CRM

M5970, M5971 R: 7/01/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

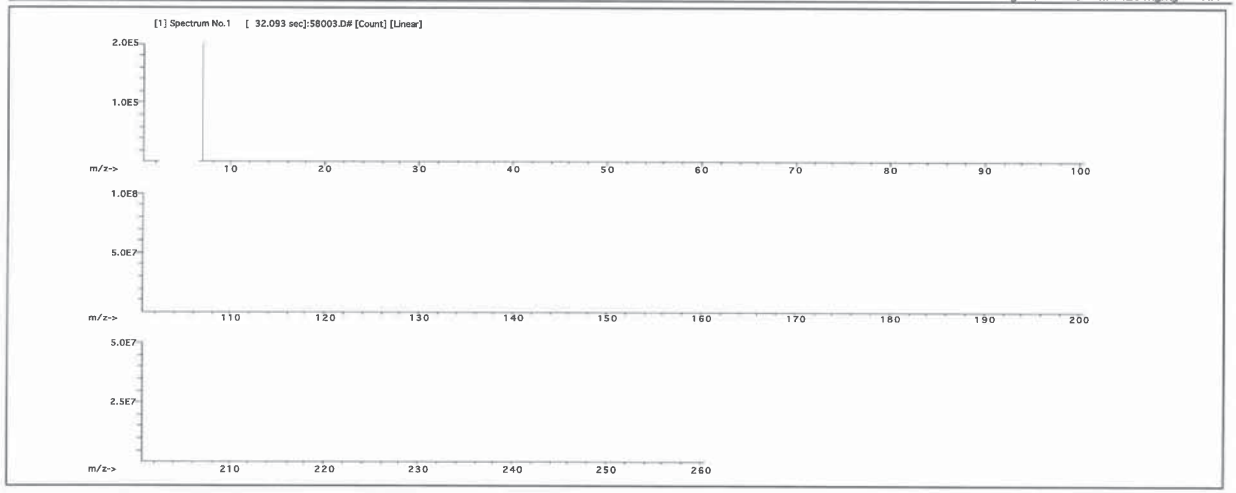
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:
Part Number:	**57003**	24002546	Nitric Acid
Lot Number:	**062124**		
Description:	**Lithium (Li)**		
		2.0%	5.0 (mL) Nitric Acid
Expiration Date:	062127		
Recommended Storage:	Ambient (20 °C)		
Nominal Concentration (µg/mL):	**1000**		
NIST Test Number:	6UTB	5E-05 Balance Uncertainty	
Volume shown below was diluted to (mL):	250.11	0.016 Flask Uncertainty	

Giovanni Esposito
Formulated By: Giovanni Esposito 062124

Pedro Rentas
Reviewed By: Pedro L. Rentas 062124

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lithium nitrate (Li)	58103	070622	0.1000	25.0	0.004	1000	10000.4	**1000.0**	**2.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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M5978, M5979

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Refine your results. Redefine your industry.

Certificate of Analysis

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Christiansburg, VA 24073 USA
inorganicventures.com

R: 2/22/24

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01 ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGTI1
Lot Number:	T2-TI719972
Matrix:	2% (v/v) HNO_3 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:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance

$w_i = (1/u_{char\ i}^2) / (\Sigma(1/u_{char\ i}^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma(w_i)^2\ (u_{char\ i})^2]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000536	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

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

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MS985
R: 6/14/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGIN10
Lot Number:	U2-IN729349
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Indium
Starting Material:	Indium Metal
Starting Material Lot#:	2511
Starting Material Purity:	99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL

Density: 1.044 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10021 ± 56 µg/mL** ICP Assay NIST SRM 3124a Lot Number: 110516
Assay Method #2	**10035 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	**10001 ± 33 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000760	M	Eu	<	0.000760	O	Na		0.012771	M	Se	<	0.023000	M	Zn	<	0.006100
M	Al		0.003385	O	Fe		0.004462	M	Nb	<	0.000760	O	Si		0.024619	M	Zr	<	0.000760
M	As	<	0.004600	M	Ga	<	0.000760	M	Nd	<	0.000760	M	Sm	<	0.000760				
M	Au	<	0.002300	M	Gd	<	0.000760	O	Ni	<	0.005100	M	Sn	<	0.000760				
O	B		0.003692	M	Ge	<	0.001600	M	Os	<	0.000760	O	Sr	<	0.000610				
M	Ba	<	0.001600	M	Hf	<	0.000760	n	P	<		M	Ta	<	0.000760				
O	Be	<	0.000130	M	Hg	<	0.003100	M	Pb		0.001400	M	Tb	<	0.000760				
M	Bi	<	0.000760	M	Ho	<	0.000760	M	Pd	<	0.001600	M	Te	<	0.000760				
O	Ca		0.004616	s	In	<		M	Pr	<	0.000760	M	Th	<	0.000760				
M	Cd	<	0.000760	M	Ir	<	0.000760	M	Pt	<	0.000760	O	Ti	<	0.001100				
M	Ce	<	0.000760	O	K		0.007078	M	Rb	<	0.000760	M	Tl	<	0.000760				
M	Co	<	0.000760	M	La	<	0.000760	M	Re	<	0.000760	M	Tm	<	0.000760				
O	Cr	<	0.001300	O	Li	<	0.000130	M	Rh	<	0.000760	M	U	<	0.000760				
M	Cs	<	0.000760	M	Lu	<	0.000760	M	Ru	<	0.000760	M	V	<	0.001600				
M	Cu	<	0.003800	O	Mg		0.000707	n	S	<		M	W	<	0.001600				
M	Dy	<	0.000760	O	Mn		0.000149	M	Sb	<	0.000760	M	Y	<	0.000760				
M	Er	<	0.000760	M	Mo	<	0.002300	M	Sc	<	0.000760	M	Yb	<	0.000760				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 114.82 +3 6 In(H2O)6+3

Chemical Compatibility -Soluble in HCl, HNO3, and H2SO4. Avoid neutral and basic media. Stable with most metals and inorganic anions. The oxalate, sulfide, carbonate, hydroxide and phosphate are insoluble in water.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

In Containing Samples (Preparation and Solution) -Metal (Best dissolved in HCl / HNO3); Oxide (Soluble in mineral acids); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 115 amu	1 ppt	n/a	115Sn, 99Ru16O
ICP-OES 158.583 nm	0.05 / 0.002 µg/mL	1	
ICP-OES 230.606 nm	0.1 / 0.03 µg/mL	1	Ni, Os
ICP-OES 325.609 nm	0.2 / 0.05 µg/mL	1	Mn, Mo, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 21, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 21, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-3
Lot Number:	T2-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, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i}^2) / (\Sigma(1/(u_{char\ i}^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i}^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

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u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

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7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

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- 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

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-CLP-4
Lot Number:	V2-MEB746172
Matrix:	3% (v/v) HNO_3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	1 000 ± 5 µg/mL	Molybdenum, Mo	1 000 ± 5 µg/mL
Silicon, Si	1 000 ± 7 µg/mL	Tin, Sn	1 000 ± 5 µg/mL
Titanium, Ti	1 000 ± 6 µg/mL		

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Mo	ICP Assay	traceable to 3134	U2-MO739068
Si	ICP Assay	Traceable to 3150	S2-SI702546
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	traceable to 3162a	T2-TI725816

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

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$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

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$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

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u_{bb} = bottle to bottle homogeneity standard uncertainty

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5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

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- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 12, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- August 12, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Joseph Burns
Custom VS Manager

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

M6074
M6075
M6076
M6077

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

EXP.: 9/6/2029

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-CLP-4
Lot Number:	V2-MEB746762
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	**1 000 ± 5 µg/mL**	**Molybdenum, Mo**	**1 000 ± 5 µg/mL**
Silicon, Si	**1 000 ± 7 µg/mL**	**Tin, Sn**	**1 000 ± 5 µg/mL**
Titanium, Ti	**1 000 ± 6 µg/mL**		

Density: 1.033 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Mo	ICP Assay	traceable to 3134	U2-MO739068
Si	ICP Assay	Traceable to 3150	S2-SI702546
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	traceable to 3162a	T2-TI725816

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 06, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- September 06, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Joseph Burns
Custom VS Manager

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

R->1/13/28

M6128

Part Number:	**58025**	**Solvent:**	**Lot #** 24002546	Nitric Acid
Lot Number:	**101124**			
Description:	**Manganese (Mn)**	2%	80.0 (mL)	Nitric Acid
Expiration Date:	101127			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.2	0.10	Flask Uncertainty	

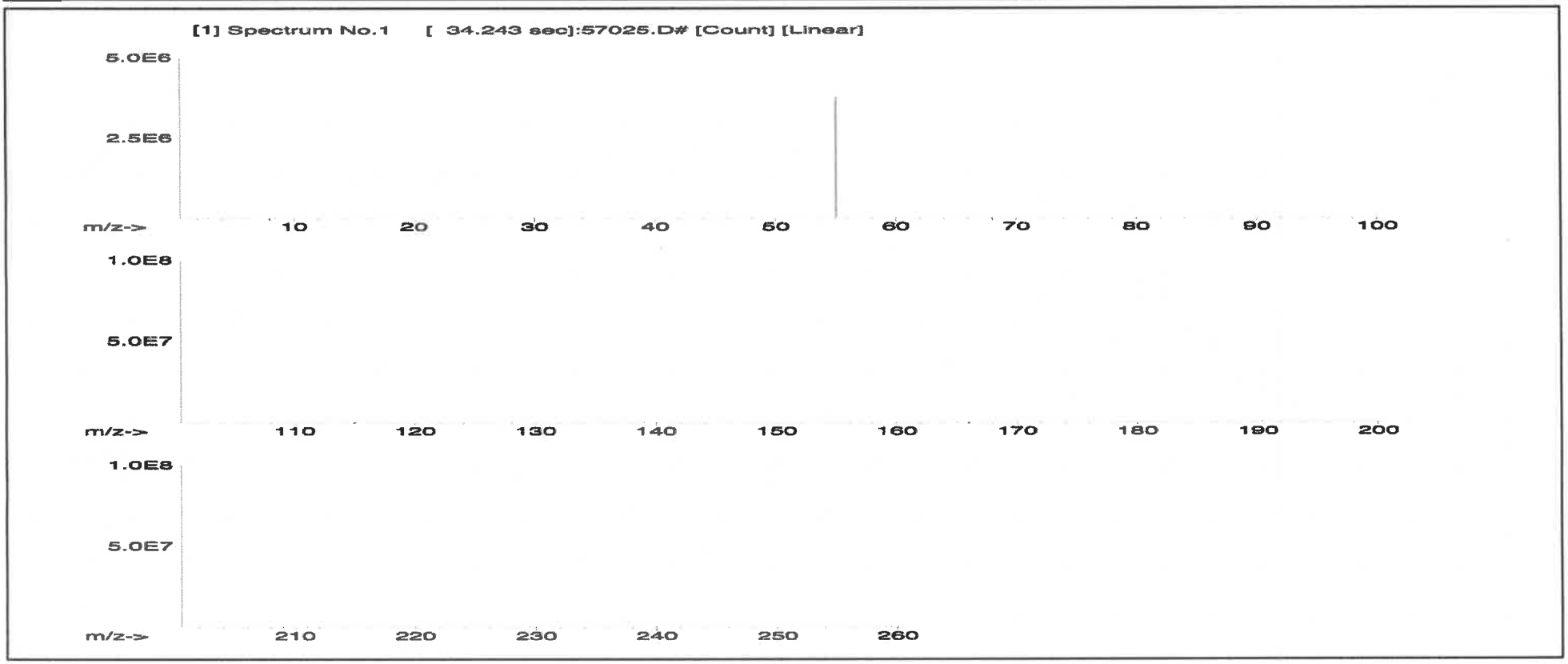
Giovanni Esposito

Formulated By:	Giovanni Esposito	101124

Pedro Rentas

Reviewed By:	Pedro L. Rentas	101124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	**SDS Information** (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Manganese(II) nitrate hydrate (Mn)	IN031	MNM092020A1	1000	99.999	0.10	20.8	19.2322	19.2344	**1000.1**	**2.0**	15710-66-4	5 mg/m3	orl-rat >300mg/kg	3132



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 certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certificate of Analysis

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M6137 R→10/3/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSI1
Lot Number:	V2-SI744713
Matrix:	tr. HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Silicon
Starting Material:	Silica
Starting Material Lot#:	1771
Starting Material Purity:	99.9981%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 6 µg/mL

Density: 1.003 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**999 ± 5 µg/mL** ICP Assay NIST SRM Traceable to 3150 Lot Number: S2-SI702546
Assay Method #2	**1000 ± 7 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000310	M	Eu	<	0.000310	O	Na		0.001656	M	Se	<	0.022000	M	Zn	<	0.002500
M	Al		0.010787	M	Fe	<	0.027000	M	Nb	<	0.001300	s	Si	<		O	Zr	<	0.001900
M	As	<	0.001900	M	Ga	<	0.001300	M	Nd	<	0.000310	M	Sm	<	0.000310				
M	Au	<	0.000910	M	Gd	<	0.000310	M	Ni	<	0.005500	M	Sn		0.000096				
M	B		0.016180	M	Ge	<	0.001900	M	Os	<	0.000610	O	Sr		0.000092				
M	Ba		0.000096	M	Hf		0.000423	i	P	<		M	Ta		0.002542				
O	Be	<	0.000570	M	Hg	<	0.000610	M	Pb	<	0.000310	M	Tb	<	0.000310				
M	Bi	<	0.000310	M	Ho	<	0.000610	M	Pd	<	0.000610	M	Te	<	0.000910				
O	Ca		0.011557	M	In	<	0.000310	M	Pr	<	0.000310	M	Th	<	0.001900				
M	Cd	<	0.000310	M	Ir	<	0.000310	M	Pt	<	0.000310	M	Ti		0.001078				
M	Ce	<	0.000610	O	K		0.000577	M	Rb	<	0.009100	M	Tl	<	0.000310				
M	Co	<	0.001600	M	La	<	0.000310	M	Re	<	0.000310	M	Tm	<	0.000310				
M	Cr	<	0.010000	O	Li	<	0.000460	M	Rh	<	0.000310	M	U	<	0.000310				
M	Cs	<	0.000310	M	Lu	<	0.000310	M	Ru	<	0.000310	O	V	<	0.001300				
M	Cu	<	0.002500	O	Mg		0.001348	O	S	<	0.570000	M	W	<	0.001900				
M	Dy	<	0.000310	M	Mn	<	0.002500	M	Sb	<	0.000310	M	Y	<	0.000310				
M	Er	<	0.000310	M	Mo	<	0.000310	O	Sc	<	0.000590	M	Yb	<	0.000310				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 28.09 +4 6 Si(OH)x(F)y2-

Chemical Compatibility -Soluble in HCl, HF, H3PO4 H2SO4 and HNO3 as the Si(OH)x(F)y2-. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths, or high levels of transition elements unless they are fluorinated. Stable with most inorganic anions with a tendency to hydrolyze forming silicic acid (silicic acid is soluble up to ∼100 ppm in water) in all dilute acids except HF.

Stability - 2-100 ppb levels - stability unknown - (alone or mixed with all other metals) as the Si(OH)x(F)y2-. 1-10,000 ppm single element solutions as the Si(OH)x(F)y2- chemically stable for years in 2-5 % HNO3 / trace HF in a LDPE container.

Si Containing Samples (Preparation and Solution) -Metal (Soluble in 1:1:1 H2O / HF / HNO3); Oxide - SiO2, amorphic (dissolve by heating in 1:1:1 H2O / HF / HNO3); Oxide - quartz (fuse in Pt0 with Na2CO3); Geological Samples(fuse in Pt0with Na2CO3 followed by HCl solution of the fuseate); Organic Matrices containing silicates and non volatile silicon compounds (dry ash at 4500C in Pt0 and dissolve by gently warming with 1:1:1 H2O / HF / H2SO4 or fuse / ash with Na2CO3 and dissolve fuseate with HCl / H2O); Silicone Oils - dimethyl silicones depolymerize to form volatile monomer units when heated (Measure directly in alcoholic KOH / xylene mixture where sample is treated first with the KOH at 60-1000C to "unzip" the Si- O-Si polymeric structure or digest with conc. H2SO4 / H2O2 followed by cooling and dissolution of the dehydrated silica with HF.) Note that the direct analysis of silicone oils in an organic solvent will result in false high results due to high vapor pressure of volatile monomer units like hexamethylcyclotrisiloxane. The KOH forms the K2+Si(CH3)2O= salt which is not volatile at room temperature.

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 28 amu	4000 - 8000 ppt	N/A	N2, 12C16O
ICP-OES 212.412 nm	0.02/0.01 µg/mL	1	Hf, Os, Mo, Ta
ICP-OES 251.611 nm	0.012/0.003 µg/mL	1	Ta, U, Zn, Th
ICP-OES 288.158 nm	0.03/0.004 µg/mL	1	Ta, Ce, Cr, Cd, Th

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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

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

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M6138
R->1/13/25

CERTIFIED WEIGHT REPORT:

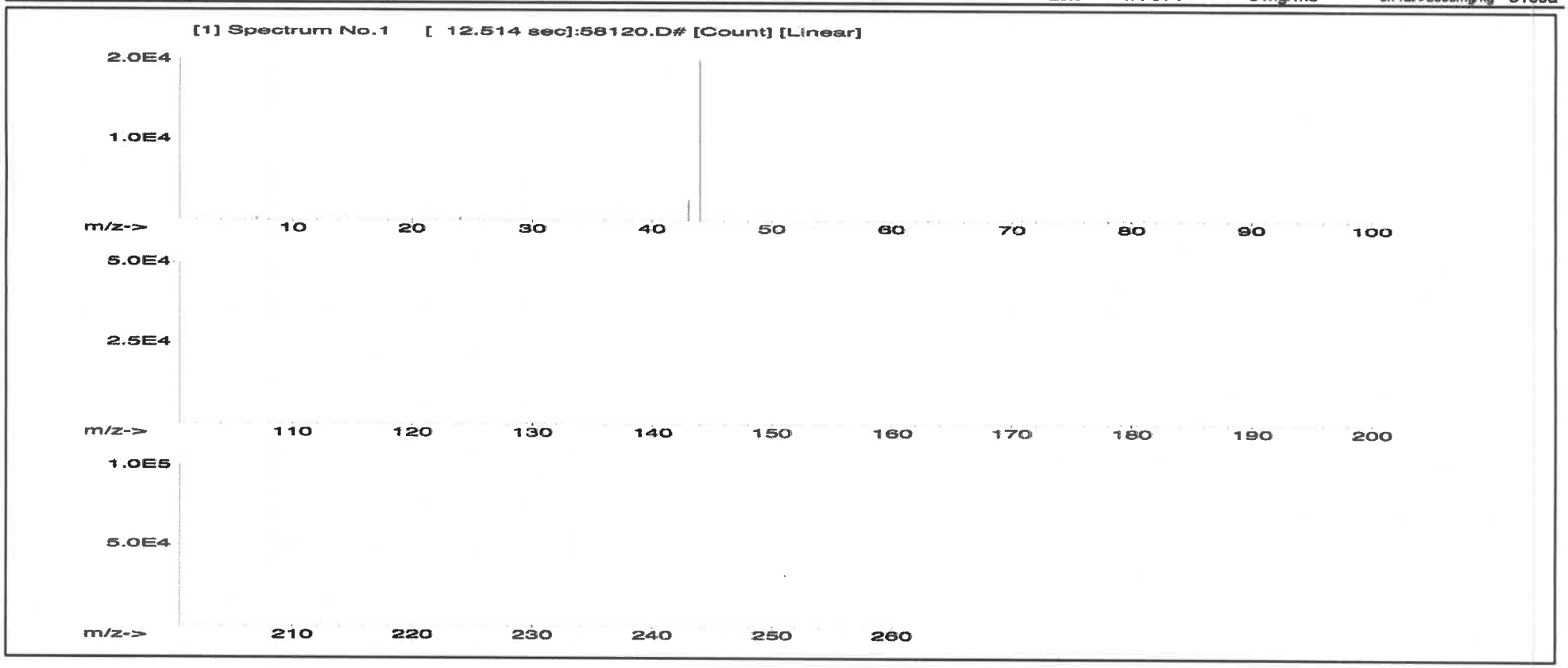
Part Number: 58120
Lot Number: 121824
Description: Calcium (Ca)
Expiration Date: 121827
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 4000.1

	Lot #		
Solvent:	24012496	Nitric Acid	
2%	80.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.15	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	121824
Reviewed By:	Pedro L. Rentas	121824

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Calcium carbonate (Ca)	IN014	CAD03203B3	10000	99.999	0.10	39.9	100.2537	100.2677	**10001.4**	**20.0**	471-34-1	5 mg/m3	orl-rat >2000mg/kg	3109a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	T	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	30	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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CERTIFIED WEIGHT REPORT:

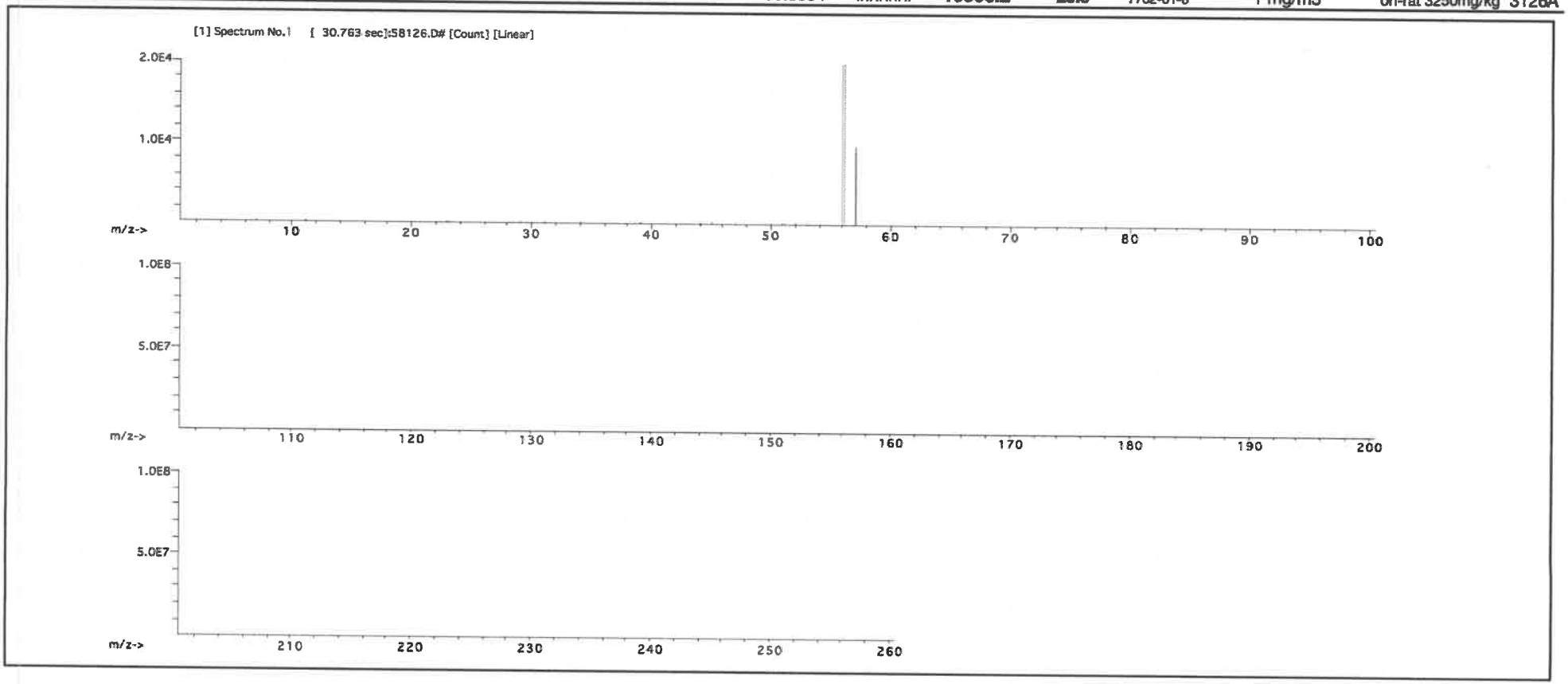
Part Number: 58126 R->1|B|2S
Lot Number: 011025
Description: Iron (Fe) M6140
Expiration Date: 011028
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.07 ± 0.100 Flask Uncertainty

		Lot #	
Solvent:	24012496	Nitric Acid	
	2%	40.0 (mL)	Nitric Acid

5E-05 Balance Uncertainty

Formulated By:	Benson Chan	011025
Reviewed By:	Pedro L. Rentas	011025

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Iron(III) nitrate nonahydrate (Fe)	IN028	FED082023A1	10000	99.999	0.10	13.0	153.8534	######	**10000.2**	**20.0**	7782-61-8	1 mg/m3	orl-rat 3250mg/kg	3126A



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	T	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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CERTIFIED WEIGHT REPORT:

R-> 1/13/25

Part Number: 57119
Lot Number: 103024
Description: Potassium (K)

M6141
M6142
M6143

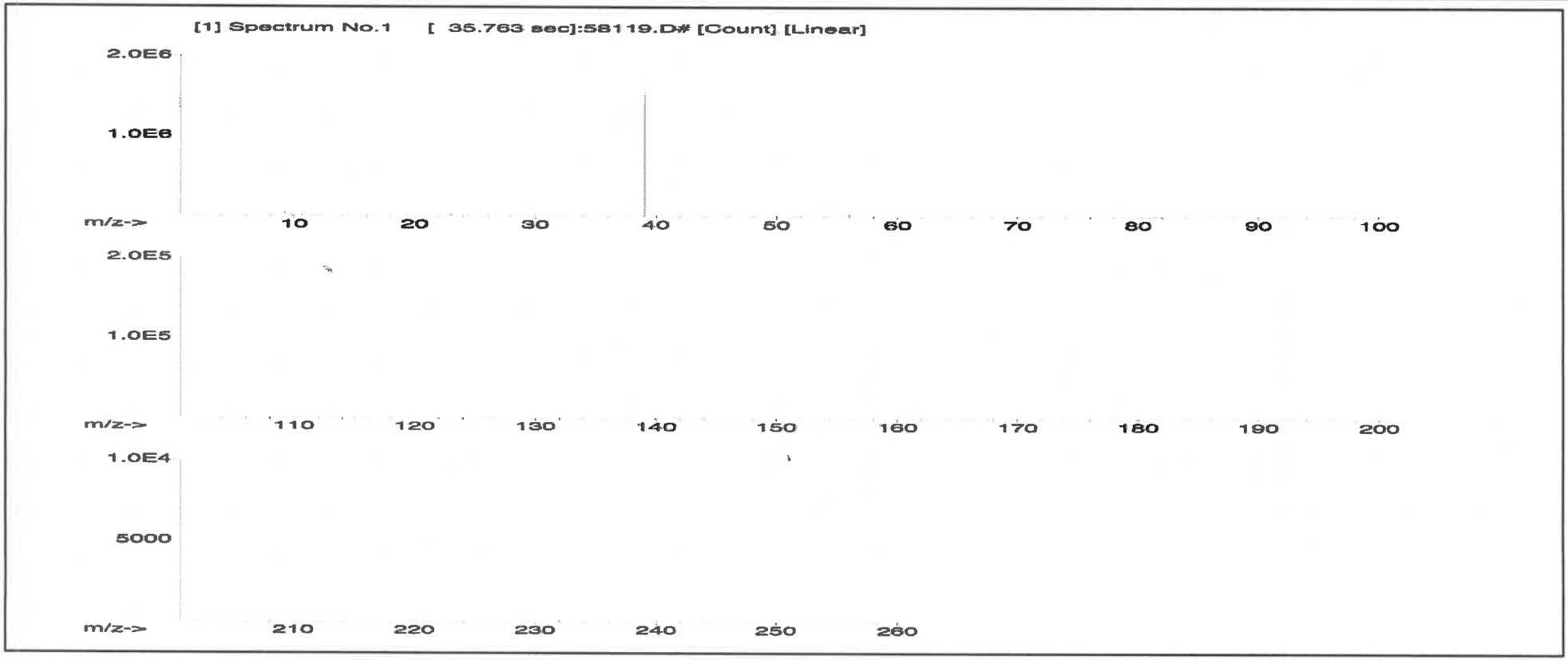
Expiration Date: 103027
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

	Lot #		
Solvent:	24002546	Nitric Acid	
	2%	80.0 (mL)	Nitric Acid
	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.1	0.15	Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	103024
Reviewed By:	Pedro L. Rentas	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)	SDS Information (Solvent Safety Info. On Attached pg.) 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



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	T	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

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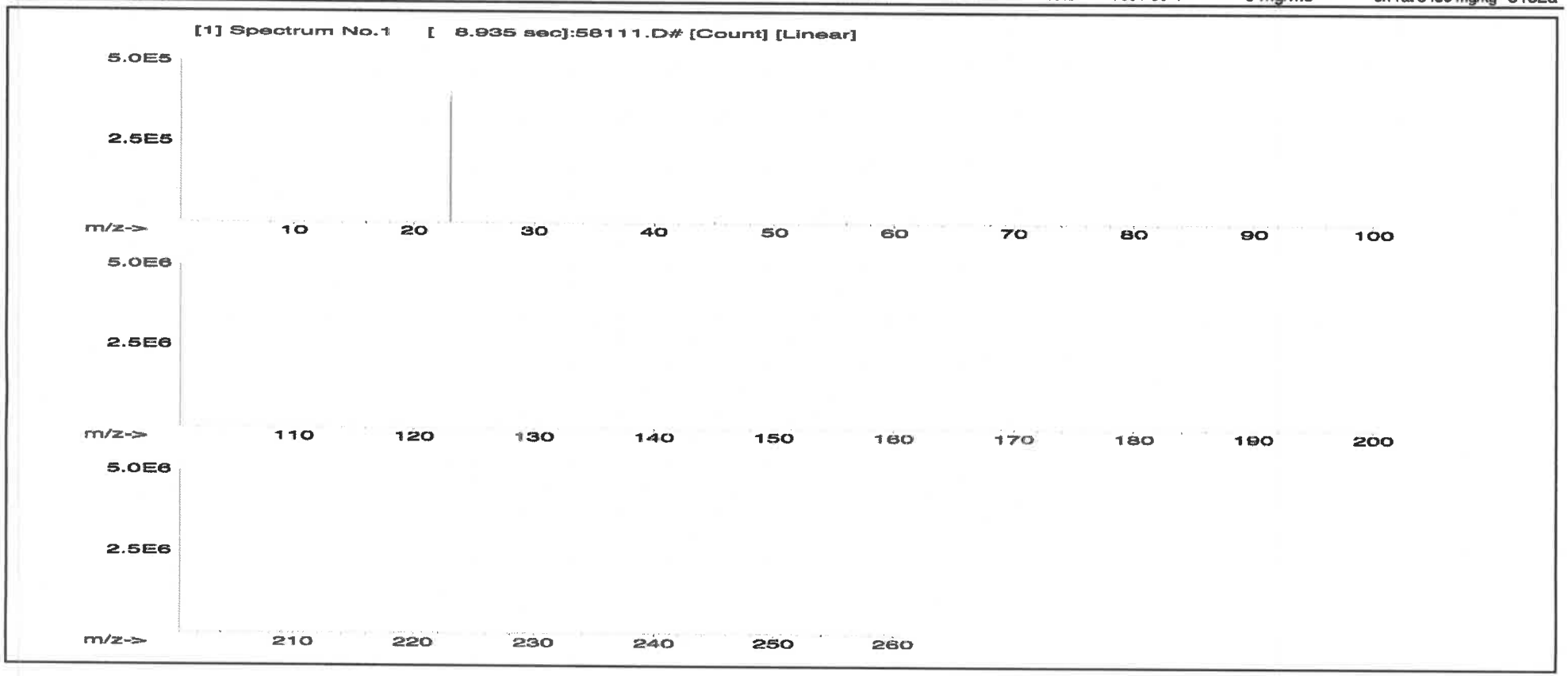
CERTIFIED WEIGHT REPORT:

R->1/13/25

Part Number:	**58111**		**Lot #**		
Lot Number:	**072424**	**Solvent:**	24002546	Nitric Acid	
Description:	**Sodium (Na)**				
		MG144 2%	80.0 (mL)	Nitric Acid	
Expiration Date:	072427				
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. Rentas 072424

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	148.7096	######	**10000.0**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



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	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	T	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

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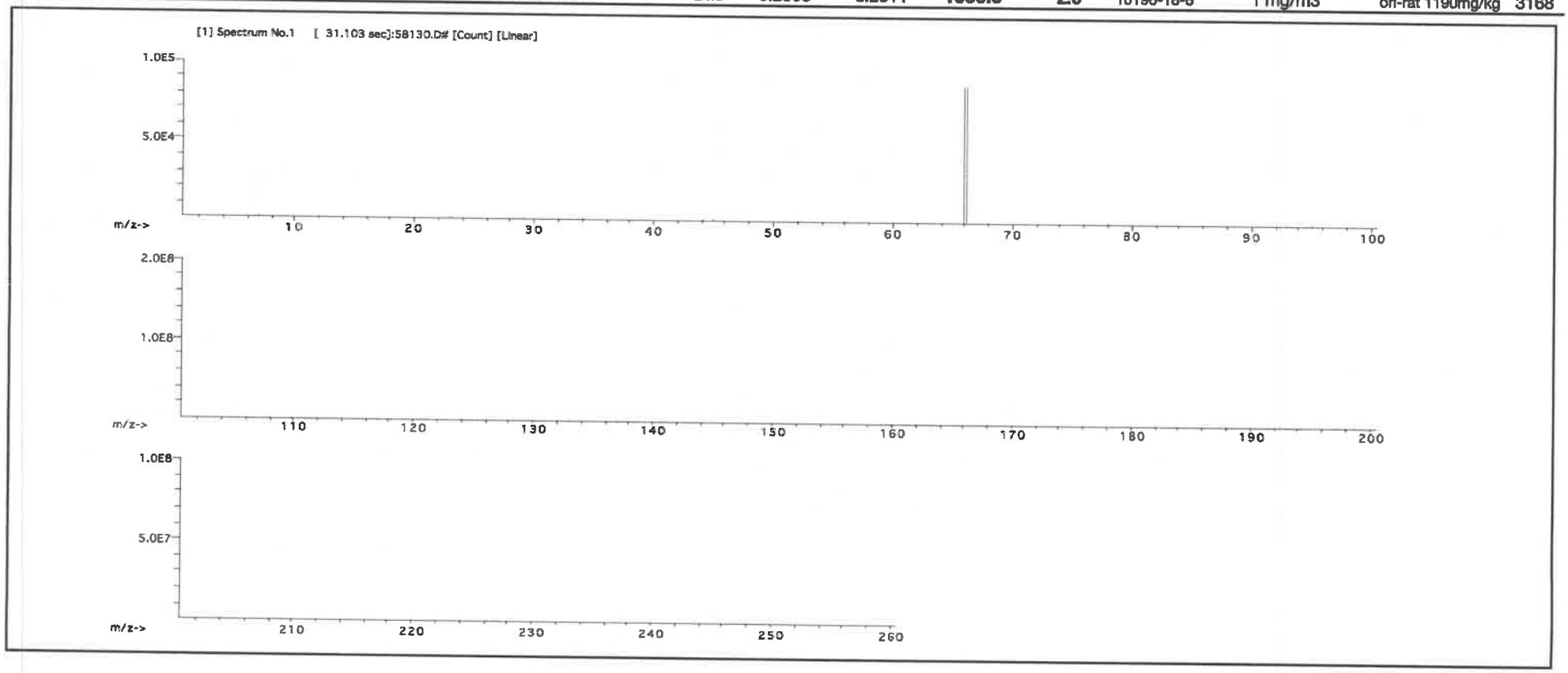
CERTIFIED WEIGHT REPORT:

Part Number:	**58030**	R → 1/13/25	**Solvent:**	**Lot #** 24012496	Nitric Acid
Lot Number:	**121724**				
Description:	**Zinc (Zn)**	M6145	2%	40.0 (mL)	Nitric Acid
Expiration Date:	121727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05 Balance Uncertainty			
Weight shown below was diluted to (mL):	2000.1	0.10 Flask Uncertainty			

Aleah O'Brady

Formulated By:	Aleah O'Brady	121724
Reviewed By:	Pedro L. Rentas	121724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Zinc nitrate hexahydrate (Zn)	IN016	ZNE032021A1	1000	99.999	0.10	24.3	8.2308	8.2311	**1000.0**	**2.0**	10196-18-6	1 mg/m3	orl-rat 1190mg/kg	3168



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Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	T
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

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Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

M6151

R-> 1/15/25

Material No.: 9530-33
Batch No.: 22G2862015
Manufactured Date: 2022-06-15
Retest Date: 2027-06-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.9 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.191
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl_2)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO_4)	≤ 0.05 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO_3)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH_4)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	1.3 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	163.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.7 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	0.6 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	6 ppb

>>> Continued on page 2 >>>

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result
Trace Impurities - Lead (Pb)	≤ 1.0 ppb	< 0.5 ppb
Trace Impurities - Lithium (Li)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Magnesium (Mg)	≤ 10.0 ppb	2.9 ppb
Trace Impurities - Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities - Mercury (Hg)	≤ 0.5 ppb	0.1 ppb
Trace Impurities - Molybdenum (Mo)	≤ 10.0 ppb	< 3.0 ppb
Trace Impurities - Nickel (Ni)	≤ 4.0 ppb	< 0.3 ppb
Trace Impurities - Niobium (Nb)	≤ 1.0 ppb	0.8 ppb
Trace Impurities - Potassium (K)	≤ 9.0 ppb	< 2.0 ppb
Trace Impurities - Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities - Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities - Silver (Ag)	≤ 1.0 ppb	0.5 ppb
Trace Impurities - Sodium (Na)	≤ 100.0 ppb	2.3 ppb
Trace Impurities - Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Tantalum (Ta)	≤ 1.0 ppb	1.6 ppb
Trace Impurities - Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Tin (Sn)	≤ 5.0 ppb	4.0 ppb
Trace Impurities - Titanium (Ti)	≤ 1.0 ppb	1.5 ppb
Trace Impurities - Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Zinc (Zn)	≤ 5.0 ppb	0.8 ppb
Trace Impurities - Zirconium (Zr)	≤ 1.0 ppb	0.3 ppb

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result

For Laboratory,Research,or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R-02102/2025

M-6158

Material No.: 9606-03
Batch No.: 24D1062002
Manufactured Date: 2024-03-26
Retest Date: 2029-03-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	2.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	100 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result
Trace Impurities - Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities - Potassium (K)	≤ 50 ppb	16 ppb
Trace Impurities - Silicon (Si)	≤ 50 ppb	< 10 ppb
Trace Impurities - Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Sodium (Na)	≤ 150.0 ppb	< 5.0 ppb
Trace Impurities - Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Tantalum (Ta)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Thallium (Tl)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Tin (Sn)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count - 0.5 µm and greater	≤ 60 par/ml	10 par/ml
Particle Count - 1.0 µm and greater	≤ 10 par/ml	3 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	QCP-CICV-1
Lot Number:	V2-MEB744107
Matrix:	7% (v/v) HNO3
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 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
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, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

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.

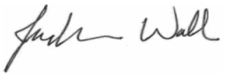
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Justin Dirico
Stock Processing Supervisor

Certificate Approved By:

Jodie Wall
Stock VSM Coordinator



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	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 ºC)

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:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$
w_i = the weighting factors for each method calculated using the inverse square of the variance:
$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2
$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method
u_{bb} = bottle to bottle homogeneity standard uncertainty
u_{lts} = long term stability standard uncertainty (storage)
u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with
$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2
$u_{char\ a}$ = the errors from characterization
u_{bb} = bottle to bottle homogeneity standard uncertainty
u_{lts} = long term stability standard uncertainty (storage)
u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 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

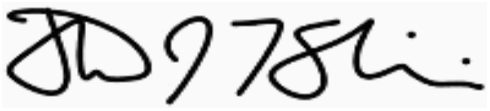
- Sealed TCT Bag Open Date: _____

- 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

Certificate of Analysis

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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	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 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

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.

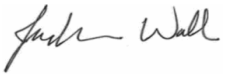
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Justin Dirico
Stock Processing Supervisor

Certificate Approved By:

Jodie Wall
Stock VSM Coordinator



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Hydrogen Peroxide, 30%
CMOS
(Stabilized)

M-6170

R.Date . 8-05/20/2025

avantor™ | J.T.Baker®

Material No.: 2190-03
Batch No.: 24D1961001

Test	Specification	Result
Trace Impurities – Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Molybdenum (Mo)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Nickel (Ni)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Niobium (Nb)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 600.0 ppb	176.7 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities – Silver (Ag)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 100.0 ppb	< 5.0 ppb
Trace Impurities – Strontium (Sr)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Thallium (Tl)	≤ 50.0 ppb	< 5.0 ppb
Trace Impurities – Tin (Sn)	190.0 – 500.0 ppb	272.3 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)	≤ 50 ppb	< 1 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count – 0.2 µm and greater	≤ 1175 par/ml	202 par/ml
Particle Count – 0.5 µm and greater	≤ 100 par/ml	33 par/ml

>>> Continued on page 3 >>>

Hydrogen Peroxide, 30%
CMOS
(Stabilized)

avantor™ | J.T.Baker®

Material No.: 2190-03
Batch No.: 24D1961001

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Paris Mfg Ctr & DC

Michelle Bales
Sr. Manager, Quality Assurance

Hydrogen Peroxide, 30%
CMOS
(Stabilized)

avantor™ | J.T.Baker®

Material No.: 2190-03
Batch No.: 24D1961001
Manufactured Date: 2024-04-17
Expiration Date: 2025-10-16
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (H_2O_2)	30.0 - 32.0 %	31.6 %
Color (APHA)	≤ 10	< 5
Free Acid (µeq/g)	≤ 0.2	0.1
Residue after Evaporation	≤ 10 ppm	2 ppm
Ammonium (NH_4)	≤ 3 ppm	< 3 ppm
Chloride (Cl)	≤ 0.2 ppm	< 0.2 ppm
Nitrate (NO_3)	≤ 2 ppm	< 2 ppm
Phosphate (PO_4)	≤ 1 ppm	1 ppm
Sulfate (SO_4)	≤ 3 ppm	< 3 ppm
Trace Impurities - Aluminum (Al)	≤ 70.0 ppb	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities - Barium (Ba)	≤ 20.0 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)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities - Chromium (Cr)	≤ 20.0 ppb	1.5 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)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities - Gold (Au)	≤ 10.0 ppb	< 5.0 ppb
Heavy Metals (as Pb)	≤ 500.0 ppb	< 250.0 ppb
Trace Impurities - Iron (Fe)	≤ 50.0 ppb	4.6 ppb
Trace Impurities - Lead (Pb)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 10.0 ppb	< 1.0 ppb

>>> Continued on page 2 >>>

R -> 2/13/25

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58112
Lot Number: 011525
Description: Magnesium (Mg)

M 6171

	Lot #	
Solvent:	24012496	Nitric Acid
2%	40.0 (mL)	Nitric Acid

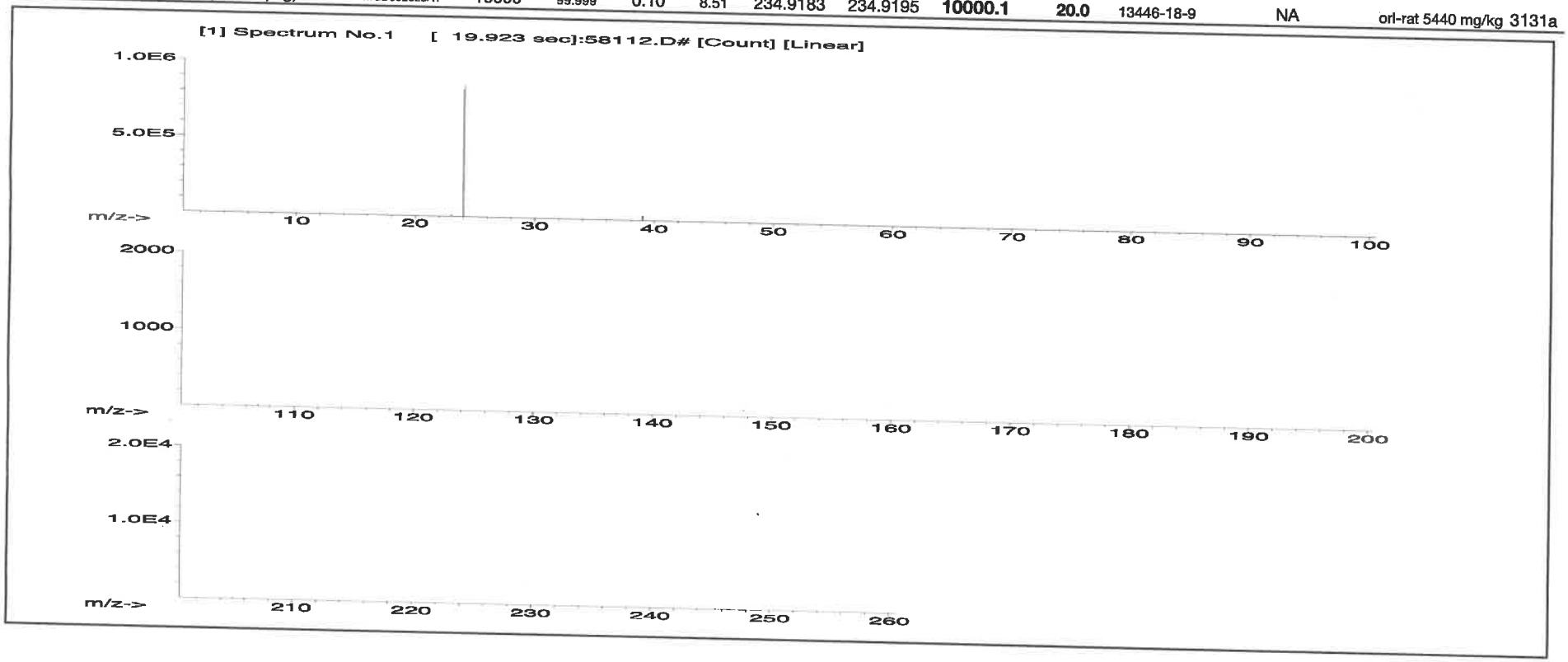
Expiration Date: 011528
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

5E-05	Balance Uncertainty	
0.100	Flask Uncertainty	

Weight shown below was diluted to (mL): 2000.07

Formulated By:	Benson Chan	011525
Reviewed By:	Pedro L. Rentas	011525

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9183	234.9195	**10000.1**	**20.0**	13446-18-9	NA	orl-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	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	T	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

M6174
R-> 5/5/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-1
Lot Number:	V2-MEB742428
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea:
	Calcium, Potassium,
	Magnesium, Sodium,
	2 000 µg/mL ea:
	Aluminum, Barium,
	1 000 µg/mL ea:
	Iron,
	500 µg/mL ea:
	Nickel, Vanadium,
	Zinc, Cobalt,
	Manganese,
	250 µg/mL ea:
	Silver, Copper,
	200 µg/mL ea:
	Chromium,
	50 µg/mL ea:
	Beryllium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	2 000 ± 7 µg/mL	Barium, Ba	2 000 ± 9 µg/mL
Beryllium, Be	50.03 ± 0.30 µg/mL	Calcium, Ca	5 000 ± 16 µg/mL
Chromium, Cr	200.0 ± 1.1 µg/mL	Cobalt, Co	500.0 ± 2.3 µg/mL
Copper, Cu	250.0 ± 1.1 µg/mL	Iron, Fe	1 000 ± 4 µg/mL
Magnesium, Mg	5 000 ± 22 µg/mL	Manganese, Mn	499.9 ± 2.2 µg/mL
Nickel, Ni	500.1 ± 2.3 µg/mL	Potassium, K	5 000 ± 22 µg/mL
Silver, Ag	250.0 ± 1.1 µg/mL	Sodium, Na	5 000 ± 22 µg/mL
Vanadium, V	500.0 ± 2.2 µg/mL	Zinc, Zn	500.0 ± 2.2 µg/mL

Density: 1.117 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
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, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

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

March 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

- March 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:

Uyen Truong
Custom Processing Supervisor

Certificate Approved By:

Jodie Wall
Stock VSM Coordinator

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

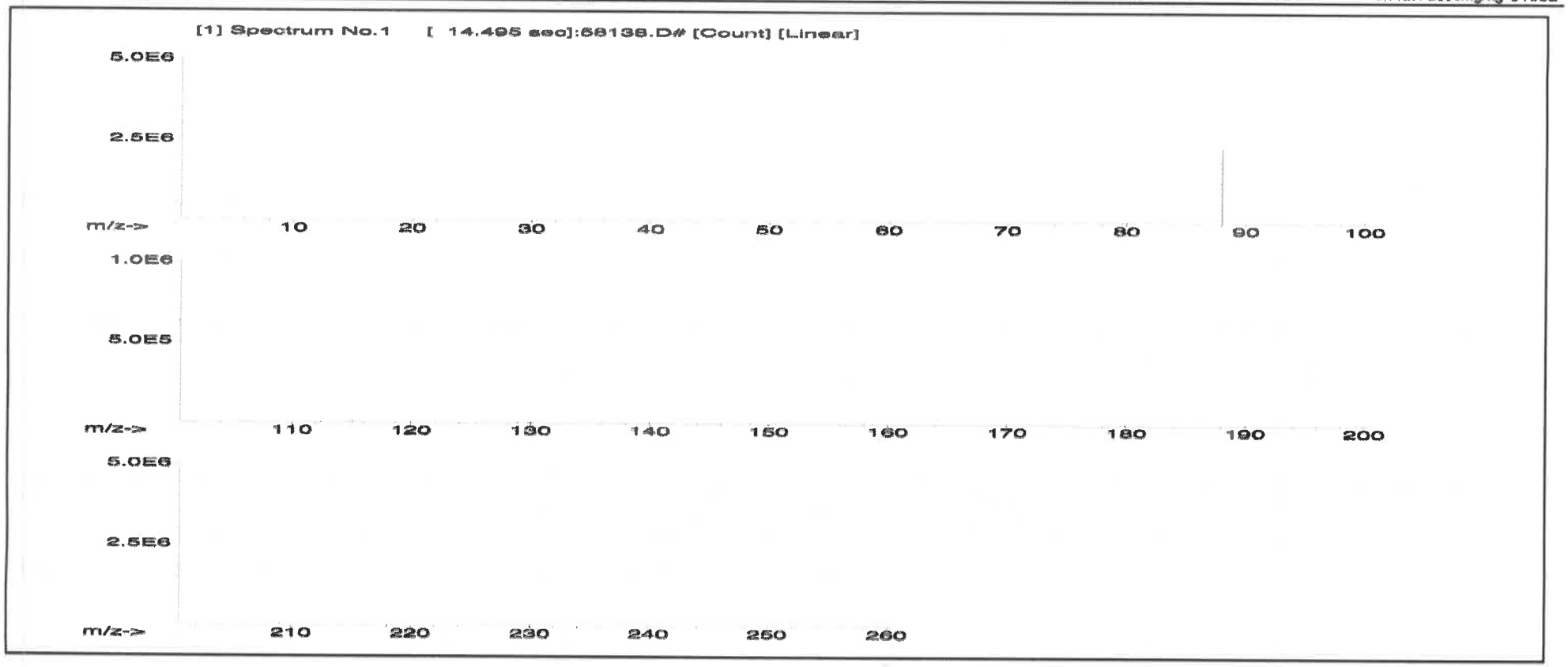
CERTIFIED WEIGHT REPORT:

R->8/6/29

Part Number:	57038		**Lot #**		
Lot Number:	092724	**Solvent:**	24002546	Nitric Acid	
Description:	Strontium (Sr)				
		M6176 2%	40.0 (mL)	Nitric Acid	
Expiration Date:	092727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	1000				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

Formulated By:	Benson Chan	092724
Reviewed By:	Pedro L. Rentas	092724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Strontium nitrate (Sr)	IN017	SRZ022018A1	1000	99.997	0.10	41.2	4.85470	4.85481	**1000.0**	**2.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	T	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

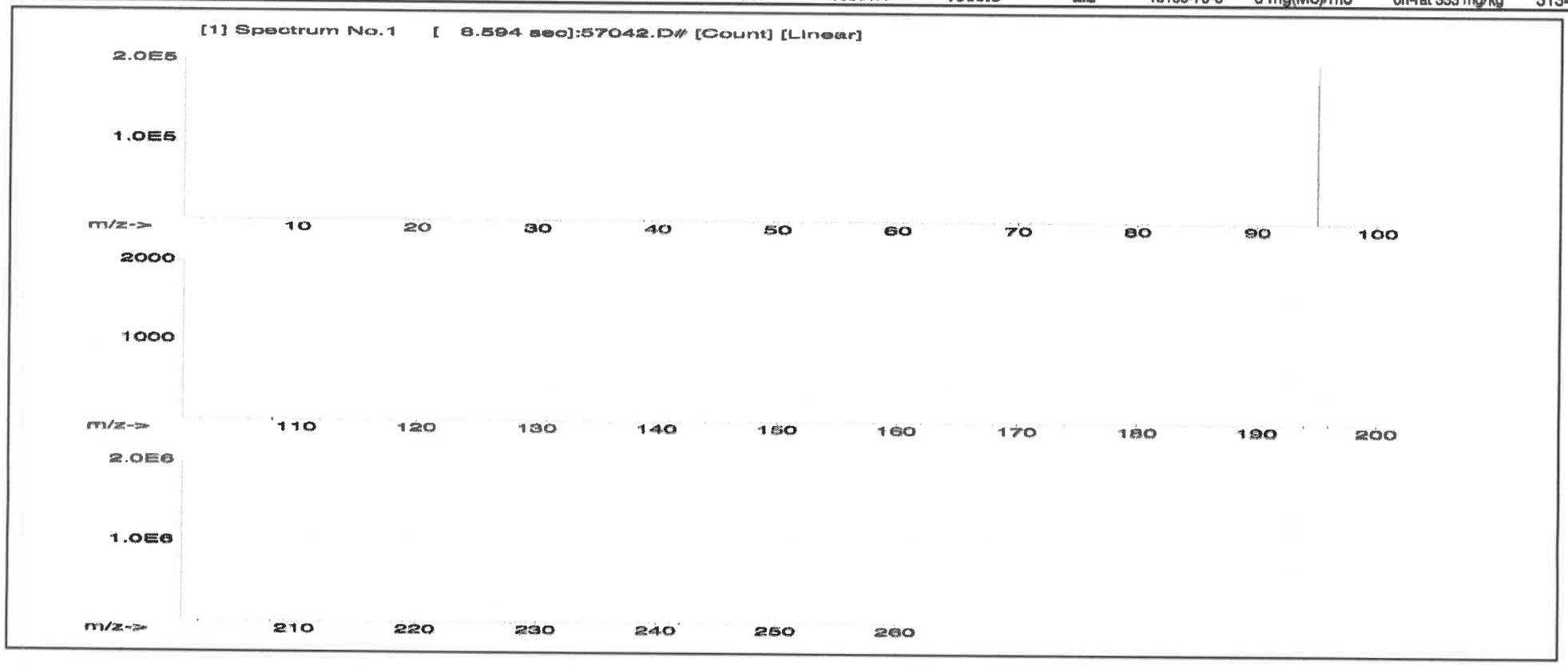
CERTIFIED WEIGHT REPORT:

R→ 8/6/25
M6177

		Lot #	Solvent:		
Part Number:	57042	MKBQ8597V	Ammonium hydroxide		
Lot Number:	080525	080525	ASTM Type 1 Water		
Description:	Molybdenum (Mo)	0.5%	10.0 (mL)	Ammonium hydroxide	
Expiration Date:	080528				
Recommended Storage:	Ambient (15 - 30 °C)				
Nominal Concentration (µg/mL):	1000				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	1999.41	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	080525
Reviewed By:	Pedro L. Rentas	080525

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium molybdate (Mo)	58142	112322	0.1000	200.0	0.084	1000	10001.4	**1000.5**	**2.2**	13106-76-8	5 mg(Mo)/m3	orl-rat 333 mg/kg	3134



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	T	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware, and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated by an ISO17025 certified organization with weights traceable through NIST to the SI kilogram (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).
Rev 1.0, 2/25/2025

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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
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CERTIFIED WEIGHT REPORT:

R>8/6/28
M6178

Part Number:	**57082**		**Lot #**		
Lot Number:	**031525**	**Solvent:**	24014457	Nitric Acid	
Description:	**Lead (Pb)**		2%	40.0 (mL)	Nitric Acid
Expiration Date:	031528				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.10	Flask Uncertainty		

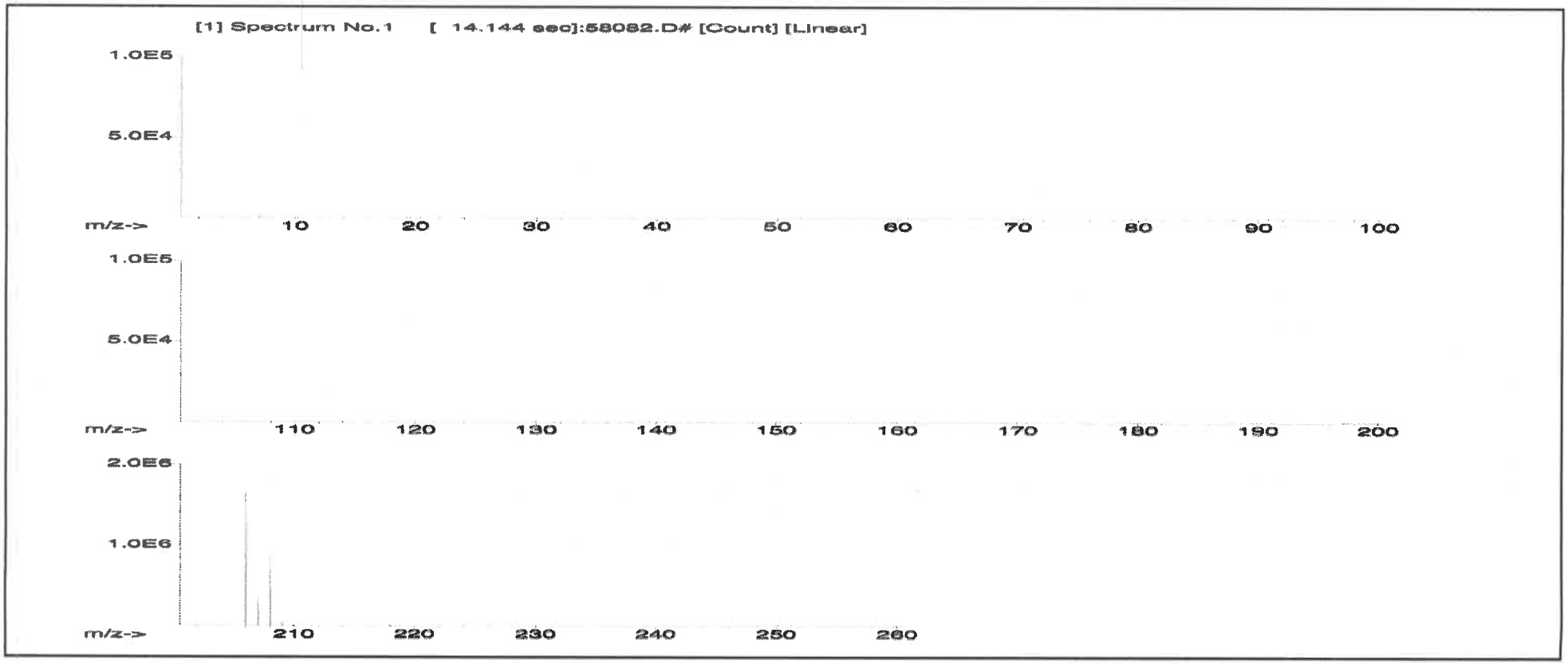
Giovanni Esposito

Formulated By:	Giovanni Esposito	031525

Pedro Rentas

Reviewed By:	Pedro L. Rentas	031525

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	1000	99.999	0.10	62.5	3.20015	3.20067	**1000.2**	**2.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



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	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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M6179
R -> 6/2/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGY10
Lot Number:	V2-Y740548
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Yttrium
Starting Material:	Yttrium Oxide
Starting Material Lot#:	2661 and 06230520YL
Starting Material Purity:	99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10000 ± 30 µg/mL

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10011 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #2	**9997 ± 50 µg/mL** ICP Assay NIST SRM 3167a Lot Number: 190730
Assay Method #3	**9984 ± 31 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.004600	M	Eu		0.009037	M	Na		0.086360	M	Se	<	0.005200	M	Zn		0.030125
M	Al		0.014862	O	Fe		0.002410	M	Nb	<	0.000570	O	Si		0.024100	O	Zr	<	0.002600
M	As	<	0.003500	M	Ga	<	0.000570	M	Nd		0.000923	M	Sm		0.000461				
M	Au	<	0.001700	M	Gd	<	0.003500	M	Ni	<	0.005700	M	Sn	<	0.002300				
O	B		0.002209	M	Ge	<	0.005200	M	Os	<	0.001200	M	Sr	<	0.004600				
O	Ba	<	0.002500	M	Hf	<	0.000570	n	P	<		M	Ta	<	0.000570				
O	Be	<	0.001400	M	Hg	<	0.000570	M	Pb		0.005020	M	Tb		0.001044				
M	Bi	<	0.003500	M	Ho		0.009037	M	Pd	<	0.005100	M	Te	<	0.002300				
O	Ca		0.009841	M	In	<	0.002300	M	Pr	<	0.002300	M	Th	<	0.000570				
M	Cd	<	0.000570	M	Ir	<	0.000570	M	Pt	<	0.000570	M	Ti	<	0.003500				
M	Ce	<	0.002300	O	K		0.018677	M	Rb	<	0.000570	M	Tl	<	0.000570				
M	Co	<	0.000570	M	La		0.000461	M	Re	<	0.000570	M	Tm	<	0.003500				
M	Cr	<	0.004000	O	Li	<	0.009300	M	Rh	<	0.008000	M	U	<	0.000570				
M	Cs	<	0.000570	M	Lu		0.000582	M	Ru	<	0.000570	M	V		0.001265				
M	Cu		0.002610	O	Mg		0.001486	n	S	<		M	W	<	0.002300				
M	Dy		0.003815	M	Mn		0.000582	M	Sb		0.005422	s	Y	<					
M	Er		0.003615	M	Mo	<	0.005700	M	Sc	<	0.001200	M	Yb		0.001827				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 88.91 +3 6 Y(OH)(H2O)x+2

Chemical Compatibility -Soluble in HCl, H2SO4 and HNO3. Avoid HF, H3PO4 and neutral to basic media. Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride. Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

Y Containing Samples (Preparation and Solution) - Metal (Soluble in acids); Oxide (Dissolve by heating in H2O/ HNO3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolve in 1:1 H2O / HCl or HNO3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 89 amu	0.8 ppt	N/A	73Ge16O, 178Hf+2
ICP-OES 360.073 nm	0.005 / 0.000036 µg/mL	1	Ce, Th
ICP-OES 371.030 nm	0.004 / 0.00007 µg/mL	1	Ce
ICP-OES 377.433 nm	0.005 / 0.0009 µg/mL	1	Ta, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 20, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 20, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor

Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	WW-LFS-1
Lot Number:	W2-MEB752149
Matrix:	5% (v/v) HNO3

M6180
R-7/22/23

Value / Analyte(s):	1 000 µg/mL ea: Potassium,	
	600 µg/mL ea: Phosphorus,	
	300 µg/mL ea: Sodium,	Iron,
	200 µg/mL ea: Magnesium, Cerium, Thallium,	Aluminum, Selenium,
	100 µg/mL ea: Lead,	Calcium,
	80 µg/mL ea: Arsenic,	
	70 µg/mL ea: Mercury,	
	50 µg/mL ea: Nickel,	
	40 µg/mL ea: Chromium,	
	30 µg/mL ea: Copper, Vanadium,	Boron,
	20 µg/mL ea: Zinc, Barium, Cadmium, Manganese,	Strontium, Beryllium, Cobalt, Lithium,
	7.5 µg/mL ea: Silver	

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	200.2 ± 0.7 µg/mL	Arsenic, As	80.1 ± 0.5 µg/mL
Barium, Ba	20.02 ± 0.12 µg/mL	Beryllium, Be	20.02 ± 0.11 µg/mL
Boron, B	30.02 ± 0.15 µg/mL	Cadmium, Cd	20.04 ± 0.09 µg/mL
Calcium, Ca	100.1 ± 0.3 µg/mL	Cerium, Ce	200.2 ± 1.0 µg/mL
Chromium, Cr	40.02 ± 0.26 µg/mL	Cobalt, Co	20.03 ± 0.09 µg/mL
Copper, Cu	30.03 ± 0.13 µg/mL	Iron, Fe	300.3 ± 1.3 µg/mL
Lead, Pb	100.1 ± 0.5 µg/mL	Lithium, Li	20.03 ± 0.09 µg/mL
Magnesium, Mg	200.2 ± 0.9 µg/mL	Manganese, Mn	19.99 ± 0.09 µg/mL
Mercury, Hg	70.0 ± 0.3 µg/mL	Nickel, Ni	50.05 ± 0.22 µg/mL
Phosphorus, P	600.5 ± 2.9 µg/mL	Potassium, K	1 001 ± 4 µg/mL
Selenium, Se	200.2 ± 1.1 µg/mL	Silver, Ag	7.52 ± 0.03 µg/mL
Sodium, Na	300.3 ± 1.3 µg/mL	Strontium, Sr	20.02 ± 0.10 µg/mL
Thallium, Tl	200.2 ± 1.0 µg/mL	Vanadium, V	30.02 ± 0.13 µg/mL
Zinc, Zn	20.05 ± 0.09 µg/mL		

Density: 1.037 g/mL (measured at 20 ± 5 °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
As	ICP Assay	3103a	100818
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
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	160830
Ce	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
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	3152a	200413
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	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, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 25° C to minimize the effects of transpiration. Use at 20° ± 5° 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

April 08, 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

- April 08, 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

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

M6181
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	WW-LFS-2
Lot Number:	V2-MEB743480
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 ± 0.5 µg/mL	Molybdenum, Mo	40.05 ± 0.22 µg/mL
Silica, SiO2	200.3 ± 1.4 µg/mL	Tin, Sn	70.1 ± 0.4 µg/mL
Titanium, Ti	20.03 ± 0.12 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
Sb	ICP Assay	3102a	140911
SiO2	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	traceable to 3162a	T2-TI725816

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method I with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma\{1/(u_{char\ i})^2\})$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 07, 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 07, 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:

Thomas Kozikowski
Stock VS Manager

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

R→03/06/24

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.

M6182

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

R→03/06/24

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

M6184

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

Nitric Acid 69%
CMOS

M6187
R.D :- 08/08/25

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Material No.: 9606-03
Batch No.: 24H0162012
Manufactured Date: 2024-06-28
Retest Date: 2029-06-27
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	< 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

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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™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

M6200
R.0 → 08/25/25

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 24D1562005
Manufactured Date: 2024-03-18
Retest Date: 2029-03-17
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.6 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.192
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	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	2.2 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	31.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.5 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	0.2 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	< 0.2 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	3 ppb

>>> Continued on page 2 >>>

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 24D1562005

Test	Specification	Result
Trace Impurities - Lead (Pb)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Lithium (Li)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities - Magnesium (Mg)	≤ 10.0 ppb	2.2 ppb
Trace Impurities - Manganese (Mn)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Mercury (Hg)	≤ 0.5 ppb	< 0.1 ppb
Trace Impurities - Molybdenum (Mo)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Nickel (Ni)	≤ 4.0 ppb	0.2 ppb
Trace Impurities - Niobium (Nb)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Potassium (K)	≤ 9.0 ppb	< 1.0 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	< 0.3 ppb
Trace Impurities - Sodium (Na)	≤ 100.0 ppb	2.0 ppb
Trace Impurities - Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Tantalum (Ta)	≤ 1.0 ppb	< 0.9 ppb
Trace Impurities - Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Tin (Sn)	≤ 5.0 ppb	< 0.4 ppb
Trace Impurities - Titanium (Ti)	≤ 1.0 ppb	0.2 ppb
Trace Impurities - Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Zinc (Zn)	≤ 5.0 ppb	< 0.2 ppb
Trace Impurities - Zirconium (Zr)	≤ 1.0 ppb	< 0.1 ppb

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 24D1562005

Test	Specification	Result

For Laboratory,Research,or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

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R 8/05/24

M6027

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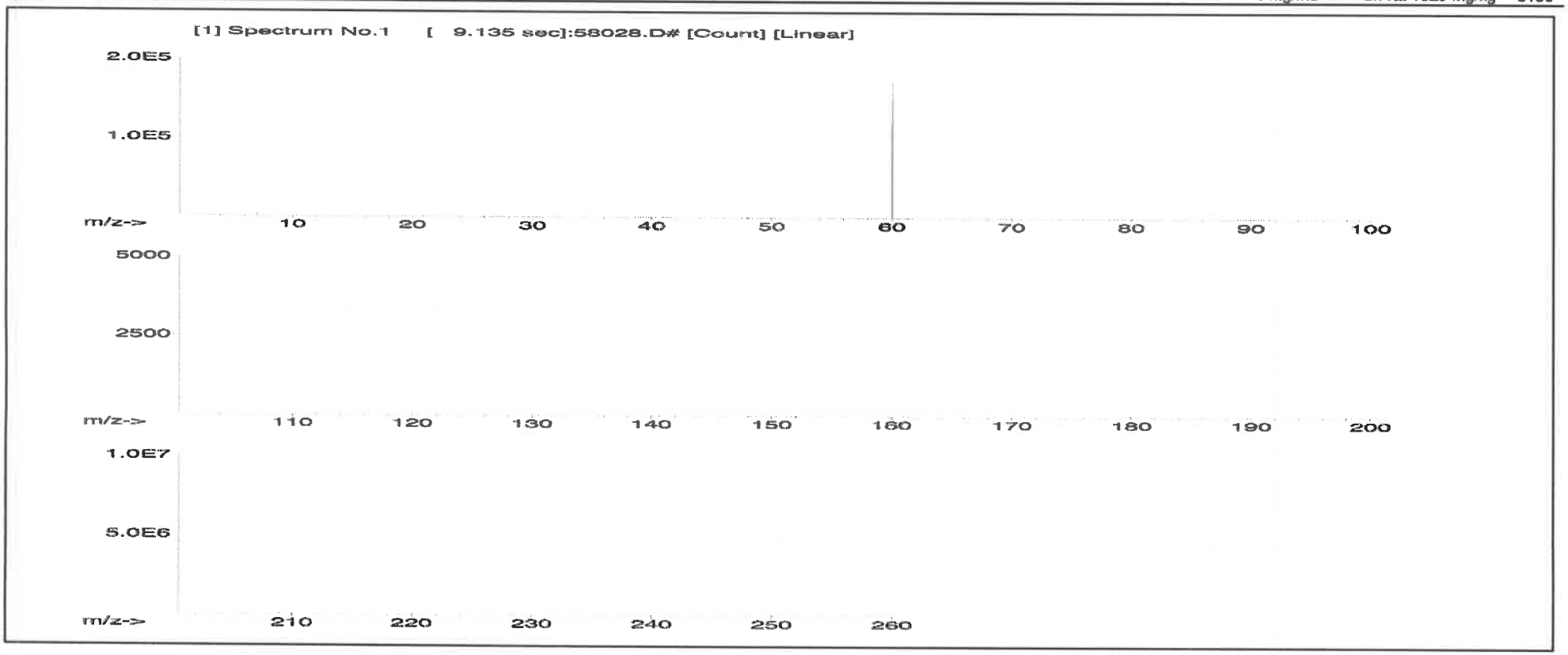
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57028**			
Lot Number:	**062024**	24002546	Nitric Acid	
Description:	**Nickel (Ni)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062027			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Formulated **By:**	Benson Chan	062024
Reviewed By:	Pedro L. Rentas	062024

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Nickel(II) nitrate hexahydrate (Ni)	58128	062023	0.1000	200.0	0.084	1000	10000.4	**1000.0**	2.2	13478-00-7	1 mg/m3	orl-rat 1620 mg/kg	3136



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	T	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M6030

R: 8/5/24

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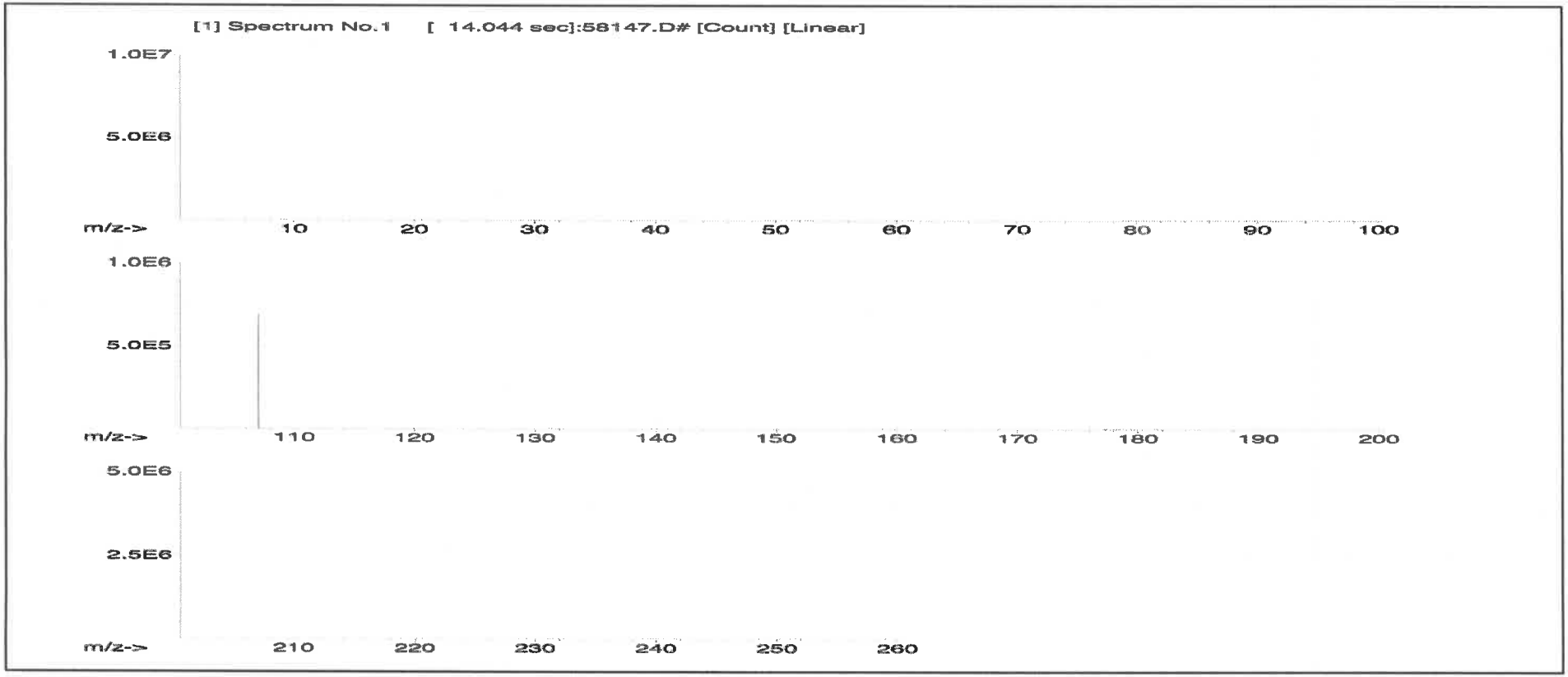
CERTIFIED WEIGHT REPORT:

Part Number:	**57047**		**Lot #**		
Lot Number:	**122823**	**Solvent:**	24002546	Nitric Acid	
Description:	**Silver (Ag)**	2%	80.0 (mL)	Nitric Acid	
Expiration Date:	122826				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.30	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	122823
Reviewed By:	Pedro L. Rentas	122823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Silver nitrate (Ag)	IN035	J0612AGA1	1000.0	99.9999	0.10	63.7	6.27992	6.27998	**1000.0**	**2.0**	7761-88-8	10 ug/m3	NA	3151



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	T	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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CERTIFIED WEIGHT REPORT:

M6160

Part Number: 57051
Lot Number: 071724
Description: Antimony (Sb)
Expiration Date: 071727
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 2000.26

Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

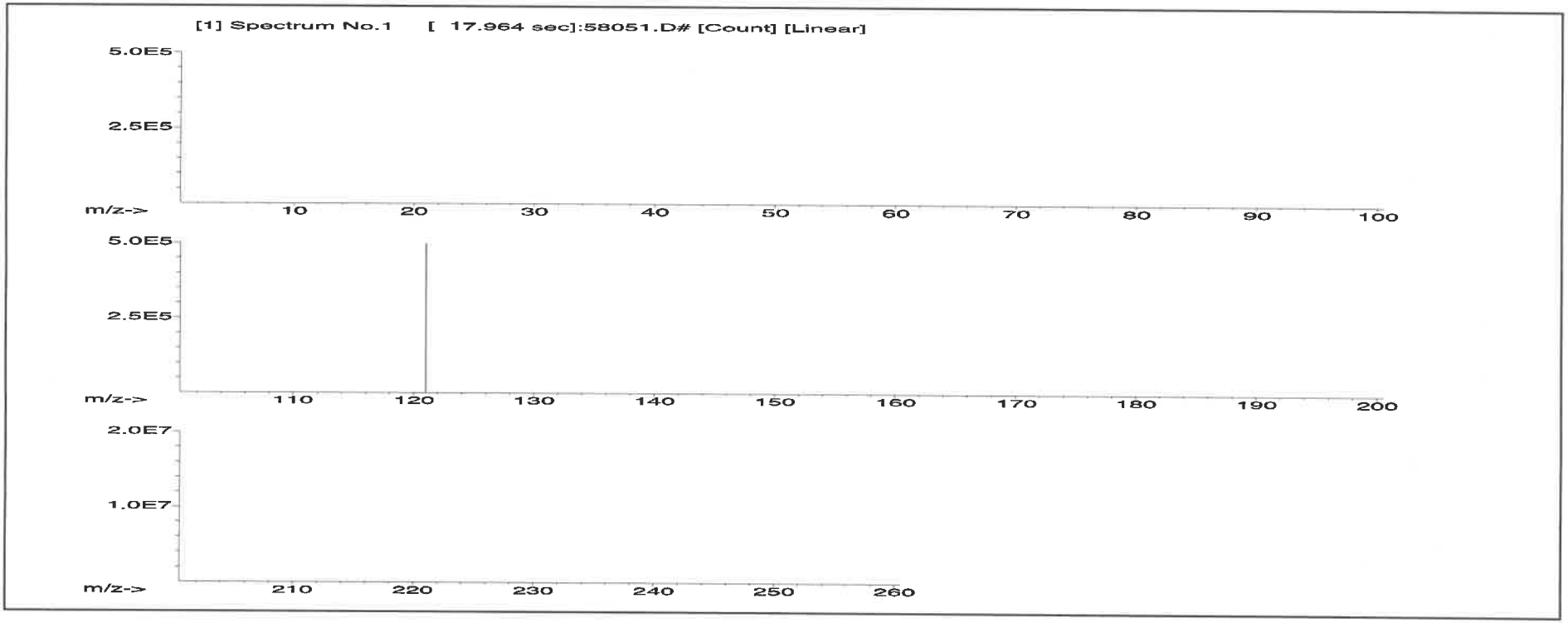
Giovanni Esposito

Formulated By:	Giovanni Esposito	071724

Pedro Rentas

Reviewed By:	Pedro L. Rentas	071724

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Antimony (Sb)	58151	060324	0.1000	200.0	0.084	1000	10001.4	**1000.0**	**2.2**	7440-36-0	0.5 mg/m3	orl-rat 7000 mg/kg	3102a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	T	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 888.01
ACCREDITED Reference Material Producer Certificate 888.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSR1
Lot Number:	U2-SR730227
Matrix:	0.1% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Strontium
Starting Material:	SrCO3
Starting Material Lot#:	M2-2192
Starting Material Purity:	99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1001 ± 3 µg/mL

Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **998 ± 4 µg/mL**
ICP Assay NIST SRM Traceable to 3153a Lot Number: K2-SR650985

Assay Method #2 **1001 ± 3 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

Assay Method #3 **1001 ± 2 µg/mL**
Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.001980	M	Eu	<	0.000495	O	Na		0.000200	M	Se	<	0.013862	O	Zn		0.000143
O	Al		0.000370	O	Fe		0.000410	M	Nb	<	0.000495	i	Si	<		M	Zr	<	0.000495
M	As	<	0.000495	M	Ga	<	0.000495	M	Nd	<	0.000495	M	Sm	<	0.000495				
M	Au	<	0.000989	M	Gd	<	0.000495	O	Ni	<	0.007631	M	Sn	<	0.000990				
M	B	<	0.039606	M	Ge	<	0.000495	M	Os	<	0.000494	s	Sr	<					
M	Ba		0.006486	M	Hf	<	0.000495	i	P	<		M	Ta	<	0.000495				
M	Be	<	0.000990	M	Hg	<	0.000989	M	Pb	<	0.002970	M	Tb	<	0.000495				
M	Bi	<	0.000495	M	Ho	<	0.000495	M	Pd	<	0.003957	M	Te	<	0.027724				
O	Ca		0.004255	M	In	<	0.000495	M	Pr	<	0.000495	M	Th	<	0.000990				
M	Cd		0.001339	M	Ir	<	0.000494	M	Pt	<	0.002970	M	Ti	<	0.005940				
M	Ce	<	0.004950	O	K	<	0.008184	M	Rb	<	0.002970	M	Tl	<	0.000495				
M	Co	<	0.000495	M	La	<	0.000495	M	Re	<	0.000495	M	Tm	<	0.000495				
O	Cr	<	0.003207	O	Li	<	0.000884	O	Rh	<	0.012829	M	U	<	0.001485				
M	Cs	<	0.000990	M	Lu	<	0.002970	M	Ru	<	0.000989	M	V	<	0.001980				
M	Cu		0.000099	O	Mg		0.000064	i	S	<		M	W	<	0.003960				
M	Dy	<	0.000495	O	Mn		0.000066	M	Sb	<	0.014852	O	Y	<	0.000995				
M	Er	<	0.000495	M	Mo	<	0.001980	M	Sc	<	0.001980	M	Yb	<	0.000495				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 87.62 +2 6 $Sr(H_2O)_6^{+2}$

Chemical Compatibility - Soluble in HCl, and HNO_3. Avoid H_2SO_4, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO_3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1 - 3.5% HNO_3 / LDPE container.

Sr Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO_3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 88 amu	1200 ppt	N/A	72Ge16O, 176Yb+2, 176Lu+2 , 176Hf+2
ICP-OES 407.771 nm	0.0004 / 0.00006 µg/mL	1	U, Ce
ICP-OES 421.552 nm	0.0008 / 0.00004 µg/mL	1	Rb
ICP-OES 460.733 nm	0.07 / 0.003 µg/mL	1	Ce

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 03, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **March 03, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R ! 8/5/24

M6023

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

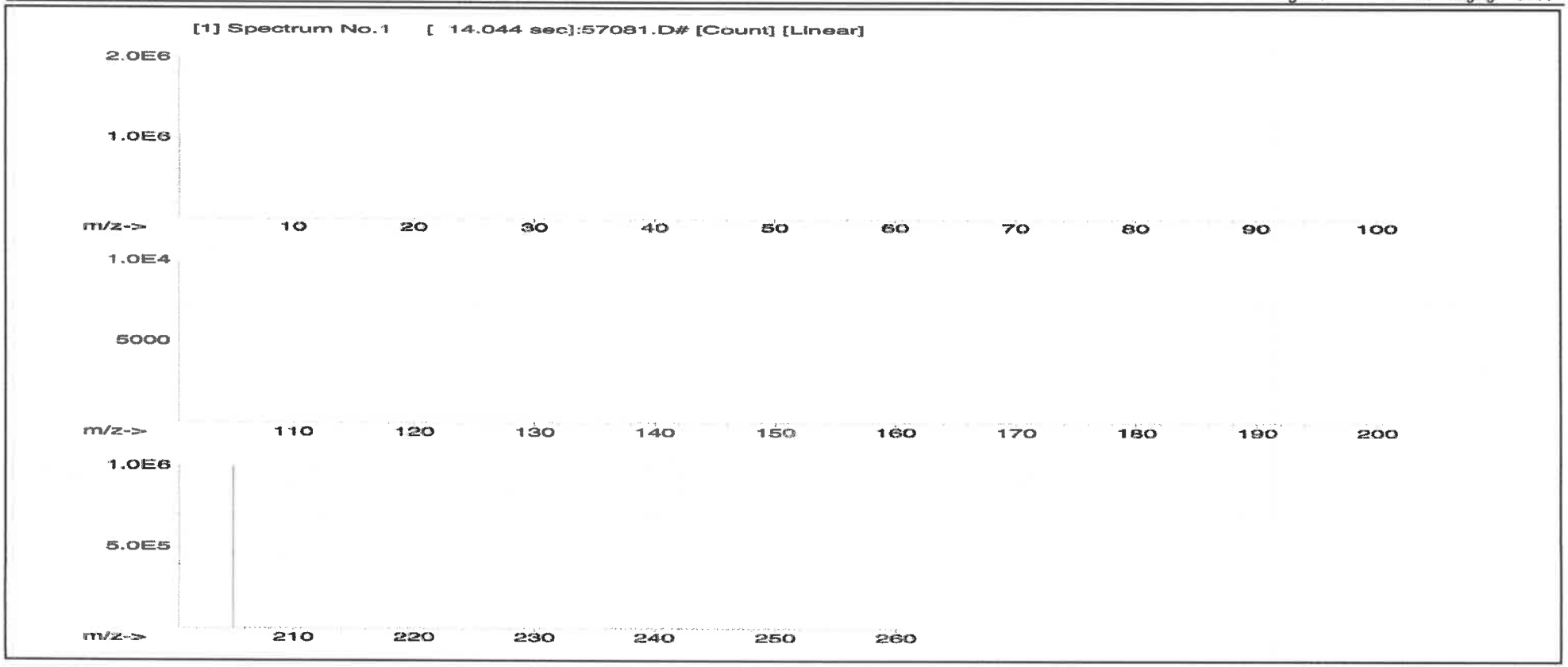
CERTIFIED WEIGHT REPORT:

Part Number:	**57081**		**Lot #**		
Lot Number:	**062724**	**Solvent:**	24002546	Nitric Acid	
Description:	**Thallium (Tl)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	062727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.1	0.10	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	062724
Reviewed By:	Pedro L. Rentas	062724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Thallium nitrate (Tl)	IN037	BCCF4399	1000	99.999	0.10	77.0	2.5975	2.5977	**1000.1**	**2.0**	10102-45-1	0.1 mg/m3	orl-mus 15mg/kg	3158



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	T	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6021

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Bc. 8/5/24

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**			
Lot Number:	**062424**	24002546	Nitric Acid	
Description:	**Vanadium (V)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062427			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.3	0.06	Flask Uncertainty	

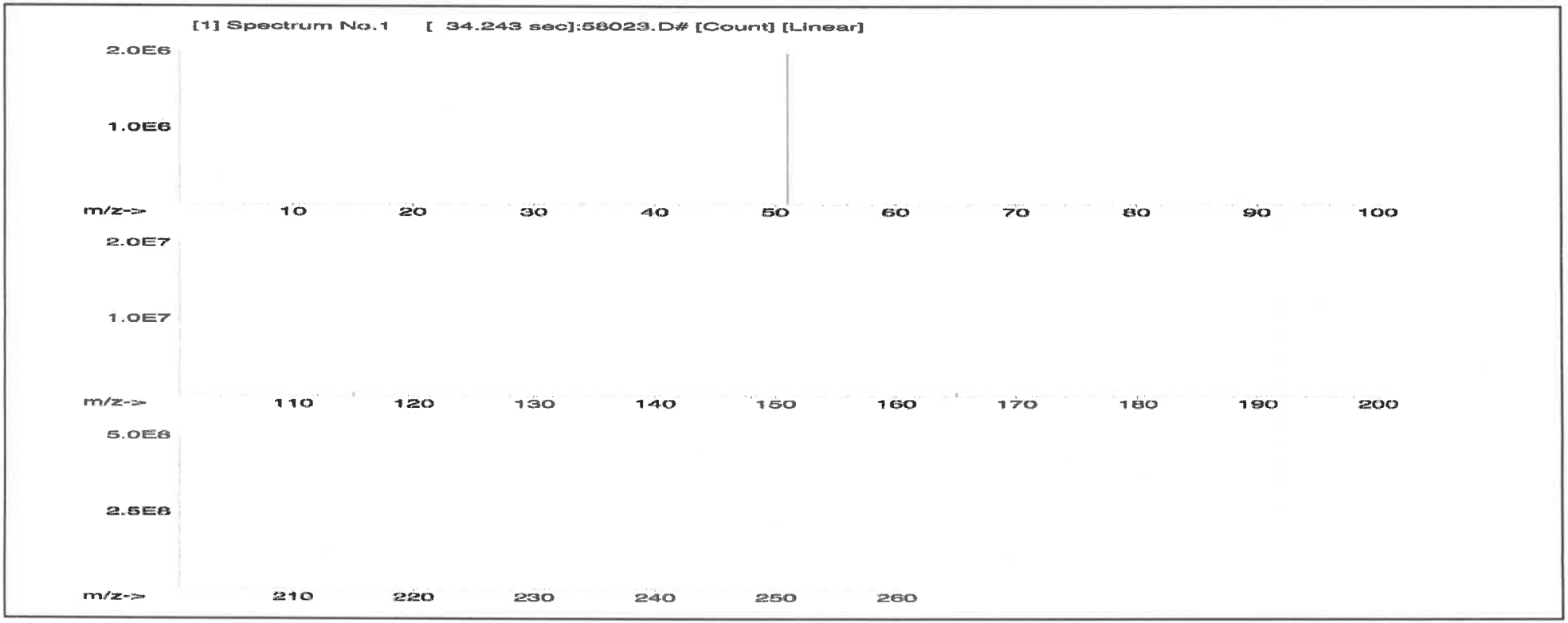
Aleah O'Brady

Formulated By:	Aleah O'Brady	062424

Pedro Rentas

Reviewed By:	Pedro L. Rentas	062424

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium metavanadate (V)	58123	021224	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	7803-55-6	0.05 mg/m3	orl-rat 58.1mg/kg	3165



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	T
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

SHIPPING DOCUMENTS

Q3215

507 Franklin Ave
Nutley

CHEMTECH
CHAIN OF CUSTODY RECORD

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 Fax (908) 789-8922
www.chemtech.net

Chemtech Project Number

COC Number

CLIENT INFORMATION

Report to be sent to:

COMPANY:
ADDRESS:
CITY: STATE: ZIP:
ATTENTION:
PHONE: FAX:

PROJECT INFORMATION

PROJECT NAME:
PROJECT #: LOCATION:
PROJECT MANAGER:
E-MAIL:
PHONE: FAX:

BILLING INFORMATION

BILL TO: PO#
ADDRESS:
CITY: STATE: ZIP:
ATTENTION: SCITECH
PHONE:

DATA TURNAROUND INFORMATION

FAX (RUSH) _____ DAYS*
HARDCOPY (DATA PACKAGE): _____ DAYS*
EDD: _____ DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS DAYS

DATA DELIVERABLE INFORMATION

- ☐ Level 1 (Results Only)
- ☐ Level 2 (Results + QC)
- ☐ Level 3 (Results + QC + Raw Data)
- ☐ EDD FORMAT _____
- ☐ Level 4 (QC + Full Raw Data)
- ☐ NJ Reduced ☐ US EPA CLP
- ☐ NYS ASP A ☐ NYS ASP B
- ☐ Other _____

ANALYSIS

1 TPH GC
2 VOC
3 EPH-F2
4
5
6
7
8
9

CHEMTECH SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# of Bottles	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1.	WASTE				9/25	915	1	X									
2.	VOC					1115	1		X								
3.	1					1130	1			X							
4.	2					1215	1			X							
5.	3					1245	1			X							
6.	4					100	1			X							
7.	5					"	1			X							
8.																	
9.																	
10.																	

PRESERVATIVES: 1 2 3 4 5 6 7 8 9

COMMENTS: <—Specify Preservatives
A-HCl D-NaOH
B-HNO3 E-ICE
C-H2SO4 F-OTHER

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE PROSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER	DATE/TIME	RECEIVED BY
1.	9-25-25 1630	1. 9.25.25 1630
RELINQUISHED BY	DATE/TIME	RECEIVED BY
2.		2.
RELINQUISHED BY	DATE/TIME	RECEIVED FOR LAB BY
3.	9-25-25 1730	3.

Conditions of bottles or coilers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 4.0C
Comments:

Page _____ of _____

CLIENT: ☐ Hand Delivered ☐ Other: _____
CHEMTECH: ☐ Picked Up

Shipment Complete ☐ YES ☐ NO

10/2018

WHITE - CHEMTECH COPY FOR RETURN TO CLIENT YELLOW - CHEMTECH COPY PINK - SAMPLER COPY

7:24

CEC Sampling Protocol - Ca...

PDF - 73 KB

Clean Earth Sampling Protocol
Carteret

PARAMETERS		TOTAL PETROLEUM HYDROCARBONS (TPH)	TOTAL VOLATILE ORGANIC COMPOUNDS (VOC)	POLYCYCLIC AROMATIC HYDROCARBONS (PAH)	TOTAL METALS - 8 RCRA	TCLP METALS - 8RCRA	SOLUBILITY	CORROSIVITY (pH)	REACTIVITY - REACTIVE AND CYANIDE	PCBs
METHODS (1)		8015C	8260D	8270E	6010D-7471B	1311-6010D-7470A	NJ/EPA	9045D	SW846 CHAPTER 7.3	8082A
	FREQUENCY									
RESIDENTIAL	Expert composite sample every 800 CY	X								
	8 point Composite sample every 800 CY		X							
Limit (mg/Kg)		--					Negative	>2 - <12.5	Sulfide <500 Cyanide <250	<1
COMMERCIAL	Expert composite sample every 370 CY	X								
	Expert composite sample every 370 CY		X	X	X	X	X	X	X	X
Limit (mg/Kg)		--			See Site Criteria	See Site Criteria	Negative	>2 - <12.5	Sulfide <500 Reactive Cyanide <250	<1

* - NJ EPH Category 2 Non-Fractionated method may also be used for Petroleum Hydrocarbon analysis
TPH-GRO analysis is required for soils with known or suspected gasoline contamination

** - For soils with greater than 17,000 ppm TPH or EPH, provide Paint Filter Test analysis Method 9095

(1) The methods provided are standard EPA methods. The method revisions are subject to change and the most current method should always be utilized by the laboratory

This is to be used as a guideline for sampling. Sampling frequencies and parameter requirements may be modified at the discretion of the CE Approval staff based upon items such as site history, levels of contamination and/or source of contamination, etc

105A.19

Open M365 Copilot

284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

Certified By	License No.
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255425
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	TX-C25-00189
Virginia	460312

QA Control Code: A2070148

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q3215 SCIA01
Client Name : Sciacca General Contractors
Client Contact : Rosanne Scirica
Invoice Name : Sciacca General Contractors
Invoice Contact : Rosanne Scirica

Order Date : 9/26/2025 8:43:00 AM
Project Name : 507 Franklin Ave Nutley
Receive DateTime : 9/25/2025 5:30:00 PM
Purchase Order :

Project Mgr :
Report Type : Results Only
EDD Type : EXCEL NJCLEANUP
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q3215-01	WASTE	Solid	09/25/2025	09:15					
					VOC-TCLVOA-10		8260D		10 Bus. Days

Relinguished By : CL
Date / Time : 9/26/25 1240

Received By :
Date / Time : 9/26/25 1240
Storage Area : VOA Refridgerator Room