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

Cover Page

Order ID : Q1746

Project ID : Amtrak Sawtooth Bridges 2025

Client : Portal Partners Tri-Venture

Lab Sample Number	Client Sample Number
Q1746-01	B-149-SB01
Q1746-02	B-149-SB01
Q1746-03	B-149-SB02
Q1746-04	B-149-SB02
Q1746-05	B-158-GW01
Q1746-06	B-149-GW01
Q1746-07	EB-2025-4-7
Q1746-08	TB-2025-4-7

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: 4/17/2025

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

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

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: **Q1746**

	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: **PRADIP PRAJAPATI** **Date:** **04/17/2025**

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

LAB CHRONICLE

OrderID:	Q1746	**OrderDate:**	4/7/2025 12:00:00 PM
Client:	Portal Partners Tri-Venture	**Project:**	Amtrak Sawtooth Bridges 2025
Contact:	Joseph Krupansky	**Location:**	L41,VOA Ref. #2 Soil,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1746-01	**B-149-SB01**	**SOIL**			**04/05/25**			**04/07/25**
			Mercury	7471B		04/08/25	04/09/25	
			Metals ICP-TAL	6010D		04/07/25	04/10/25	
Q1746-02	**B-149-SB01**	**TCLP**			**04/05/25**			**04/07/25**
			TCLP ICP Metals	6010D		04/09/25	04/14/25	
			TCLP Mercury	7470A		04/10/25	04/10/25	
Q1746-03	**B-149-SB02**	**SOIL**			**04/06/25**			**04/07/25**
			Mercury	7471B		04/08/25	04/09/25	
			Metals ICP-TAL	6010D		04/07/25	04/10/25	
Q1746-04	**B-149-SB02**	**TCLP**			**04/06/25**			**04/07/25**
			TCLP ICP Metals	6010D		04/09/25	04/14/25	
			TCLP Mercury	7470A		04/10/25	04/10/25	
Q1746-05	**B-158-GW01**	**Water**			**04/05/25**			**04/07/25**
			Mercury	7470A		04/10/25	04/11/25	
			Metals ICP-TAL	6010D		04/08/25	04/14/25	
Q1746-06	**B-149-GW01**	**Water**			**04/06/25**			**04/07/25**
			Mercury	7470A		04/10/25	04/11/25	
			Metals ICP-TAL	6010D		04/08/25	04/14/25	
Q1746-07	**EB-2025-4-7**	**Water**			**04/07/25**			**04/07/25**
			Mercury	7470A		04/10/25	04/11/25	
			Metals ICP-TAL	6010D		04/08/25	04/14/25	

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

Hit Summary Sheet
SW-846

SDG No.: Q1746 **Order ID:** Q1746

Client: Portal Partners Tri-Venture **Project ID:** Amtrak Sawtooth Bridges 2025

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : B-149-SB01								
Q1746-02	B-149-SB01	TCLP	Barium	952		62.8	500	ug/L
Q1746-02	B-149-SB01	TCLP	Cadmium	2.20	J	0.94	30.0	ug/L
Q1746-02	B-149-SB01	TCLP	Lead	116		35.1	60.0	ug/L
Client ID : B-149-SB02								
Q1746-04	B-149-SB02	TCLP	Barium	437	J	62.8	500	ug/L
Q1746-04	B-149-SB02	TCLP	Chromium	8.09	J	6.60	50.0	ug/L



SAMPLE DATA

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	04/05/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	04/07/25
Client Sample ID:	B-149-SB01	SDG No.:	Q1746
Lab Sample ID:	Q1746-02	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-38-2	Arsenic	34.8	U	1	34.8	100	ug/L	04/09/25 12:30	04/14/25 20:34	SW6010	SW3050
7440-39-3	Barium	952	N	1	62.8	500	ug/L	04/09/25 12:30	04/14/25 20:34	SW6010	SW3050
7440-43-9	Cadmium	2.20	J	1	0.94	30.0	ug/L	04/09/25 12:30	04/14/25 20:34	SW6010	SW3050
7440-47-3	Chromium	6.60	U	1	6.60	50.0	ug/L	04/09/25 12:30	04/14/25 20:34	SW6010	SW3050
7439-92-1	Lead	116		1	35.1	60.0	ug/L	04/09/25 12:30	04/14/25 20:34	SW6010	SW3050
7439-97-6	Mercury	0.76	U	1	0.76	2.00	ug/L	04/10/25 09:45	04/10/25 13:50	SW7470A	
7782-49-2	Selenium	58.8	U	1	58.8	100	ug/L	04/09/25 12:30	04/14/25 20:34	SW6010	SW3050
7440-22-4	Silver	5.80	U	1	5.80	50.0	ug/L	04/09/25 12:30	04/14/25 20:34	SW6010	SW3050

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	TCLP-FULL				

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

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

Report of Analysis

Client:	Portal Partners Tri-Venture	Date Collected:	04/06/25
Project:	Amtrak Sawtooth Bridges 2025	Date Received:	04/07/25
Client Sample ID:	B-149-SB02	SDG No.:	Q1746
Lab Sample ID:	Q1746-04	Matrix:	TCLP
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-38-2	Arsenic	34.8	U	1	34.8	100	ug/L	04/09/25 12:30	04/14/25 20:39	SW6010	SW3050
7440-39-3	Barium	437	JN	1	62.8	500	ug/L	04/09/25 12:30	04/14/25 20:39	SW6010	SW3050
7440-43-9	Cadmium	0.94	U	1	0.94	30.0	ug/L	04/09/25 12:30	04/14/25 20:39	SW6010	SW3050
7440-47-3	Chromium	8.09	J	1	6.60	50.0	ug/L	04/09/25 12:30	04/14/25 20:39	SW6010	SW3050
7439-92-1	Lead	35.1	U	1	35.1	60.0	ug/L	04/09/25 12:30	04/14/25 20:39	SW6010	SW3050
7439-97-6	Mercury	0.76	U	1	0.76	2.00	ug/L	04/10/25 09:45	04/10/25 13:52	SW7470A	
7782-49-2	Selenium	58.8	U	1	58.8	100	ug/L	04/09/25 12:30	04/14/25 20:39	SW6010	SW3050
7440-22-4	Silver	5.80	U	1	5.80	50.0	ug/L	04/09/25 12:30	04/14/25 20:39	SW6010	SW3050

Color Before:	Colorless	Clarity Before:	Clear	Texture:	
Color After:	Colorless	Clarity After:	Clear	Artifacts:	
Comments:	TCLP-FULL				

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

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: **Portal Partners Tri-Venture** **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

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
ICV83	Mercury	4.06	4.0	102	90 - 110	CV	04/10/2025	13:01	LB135365

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

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
CCV53	Mercury	4.98	5.0	100	90 - 110	CV	04/10/2025	13:06	LB135365
CCV54	Mercury	4.95	5.0	99	90 - 110	CV	04/10/2025	13:38	LB135365
CCV55	Mercury	4.88	5.0	98	90 - 110	CV	04/10/2025	14:06	LB135365
CCV56	Mercury	4.94	5.0	99	90 - 110	CV	04/10/2025	14:36	LB135365
CCV57	Mercury	4.81	5.0	96	90 - 110	CV	04/10/2025	15:06	LB135365
CCV58	Mercury	5.01	5.0	100	90 - 110	CV	04/10/2025	15:26	LB135365

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

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	985	1000	98	90 - 110	P	04/10/2025	10:09	LB135373
	Barium	534	520	103	90 - 110	P	04/10/2025	10:09	LB135373
	Cadmium	483	510	95	90 - 110	P	04/10/2025	10:09	LB135373
	Chromium	505	520	97	90 - 110	P	04/10/2025	10:09	LB135373
	Lead	951	1000	95	90 - 110	P	04/10/2025	10:09	LB135373
	Selenium	1030	1000	103	90 - 110	P	04/10/2025	10:09	LB135373
	Silver	245	250	98	90 - 110	P	04/10/2025	10:09	LB135373

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

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	18.5	20.0	92	80 - 120	P	04/10/2025	10:25	LB135373
	Barium	85.5	100	86	80 - 120	P	04/10/2025	10:25	LB135373
	Cadmium	5.62	6.0	94	80 - 120	P	04/10/2025	10:25	LB135373
	Chromium	9.56	10.0	96	80 - 120	P	04/10/2025	10:25	LB135373
	Lead	9.94	12.0	83	80 - 120	P	04/10/2025	10:25	LB135373
	Selenium	18.9	20.0	94	80 - 120	P	04/10/2025	10:25	LB135373
	Silver	10.5	10.0	104	80 - 120	P	04/10/2025	10:25	LB135373

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

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	4750	5000	95	90 - 110	P	04/10/2025	11:00	LB135373
	Barium	9770	10000	98	90 - 110	P	04/10/2025	11:00	LB135373
	Cadmium	2340	2500	94	90 - 110	P	04/10/2025	11:00	LB135373
	Chromium	1010	1000	101	90 - 110	P	04/10/2025	11:00	LB135373
	Lead	5240	5000	105	90 - 110	P	04/10/2025	11:00	LB135373
	Selenium	4820	5000	96	90 - 110	P	04/10/2025	11:00	LB135373
	Silver	1250	1250	100	90 - 110	P	04/10/2025	11:00	LB135373
CCV02	Arsenic	4800	5000	96	90 - 110	P	04/10/2025	12:08	LB135373
	Barium	9680	10000	97	90 - 110	P	04/10/2025	12:08	LB135373
	Cadmium	2350	2500	94	90 - 110	P	04/10/2025	12:08	LB135373
	Chromium	1020	1000	102	90 - 110	P	04/10/2025	12:08	LB135373
	Lead	4720	5000	94	90 - 110	P	04/10/2025	12:08	LB135373
	Selenium	4860	5000	97	90 - 110	P	04/10/2025	12:08	LB135373
	Silver	1260	1250	101	90 - 110	P	04/10/2025	12:08	LB135373
CCV03	Arsenic	4890	5000	98	90 - 110	P	04/10/2025	12:59	LB135373
	Barium	10100	10000	101	90 - 110	P	04/10/2025	12:59	LB135373
	Cadmium	2360	2500	94	90 - 110	P	04/10/2025	12:59	LB135373
	Chromium	1020	1000	102	90 - 110	P	04/10/2025	12:59	LB135373
	Lead	4740	5000	95	90 - 110	P	04/10/2025	12:59	LB135373
	Selenium	4990	5000	100	90 - 110	P	04/10/2025	12:59	LB135373
	Silver	1270	1250	101	90 - 110	P	04/10/2025	12:59	LB135373
CCV04	Arsenic	4880	5000	98	90 - 110	P	04/10/2025	13:51	LB135373
	Barium	9600	10000	96	90 - 110	P	04/10/2025	13:51	LB135373
	Cadmium	2380	2500	95	90 - 110	P	04/10/2025	13:51	LB135373
	Chromium	1020	1000	102	90 - 110	P	04/10/2025	13:51	LB135373
	Lead	4760	5000	95	90 - 110	P	04/10/2025	13:51	LB135373
	Selenium	4960	5000	99	90 - 110	P	04/10/2025	13:51	LB135373
	Silver	1270	1250	102	90 - 110	P	04/10/2025	13:51	LB135373
CCV05	Arsenic	4820	5000	96	90 - 110	P	04/10/2025	14:44	LB135373
	Barium	9730	10000	97	90 - 110	P	04/10/2025	14:44	LB135373
	Cadmium	2350	2500	94	90 - 110	P	04/10/2025	14:44	LB135373
	Chromium	1020	1000	102	90 - 110	P	04/10/2025	14:44	LB135373
	Lead	4720	5000	94	90 - 110	P	04/10/2025	14:44	LB135373
	Selenium	4910	5000	98	90 - 110	P	04/10/2025	14:44	LB135373

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

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	1270	1250	101	90 - 110	P	04/10/2025	14:44	LB135373
CCV06	Arsenic	4780	5000	96	90 - 110	P	04/10/2025	15:44	LB135373
	Barium	9640	10000	96	90 - 110	P	04/10/2025	15:44	LB135373
	Cadmium	2340	2500	93	90 - 110	P	04/10/2025	15:44	LB135373
	Chromium	1010	1000	101	90 - 110	P	04/10/2025	15:44	LB135373
	Lead	4690	5000	94	90 - 110	P	04/10/2025	15:44	LB135373
	Selenium	4850	5000	97	90 - 110	P	04/10/2025	15:44	LB135373
	Silver	1260	1250	100	90 - 110	P	04/10/2025	15:44	LB135373
CCV07	Arsenic	4920	5000	98	90 - 110	P	04/10/2025	16:56	LB135373
	Barium	9570	10000	96	90 - 110	P	04/10/2025	16:56	LB135373
	Cadmium	2350	2500	94	90 - 110	P	04/10/2025	16:56	LB135373
	Chromium	1020	1000	102	90 - 110	P	04/10/2025	16:56	LB135373
	Lead	4740	5000	95	90 - 110	P	04/10/2025	16:56	LB135373
	Selenium	5020	5000	100	90 - 110	P	04/10/2025	16:56	LB135373
	Silver	1260	1250	101	90 - 110	P	04/10/2025	16:56	LB135373
CCV08	Arsenic	4890	5000	98	90 - 110	P	04/10/2025	17:56	LB135373
	Barium	9470	10000	95	90 - 110	P	04/10/2025	17:56	LB135373
	Cadmium	2360	2500	94	90 - 110	P	04/10/2025	17:56	LB135373
	Chromium	1030	1000	103	90 - 110	P	04/10/2025	17:56	LB135373
	Lead	4740	5000	95	90 - 110	P	04/10/2025	17:56	LB135373
	Selenium	4980	5000	100	90 - 110	P	04/10/2025	17:56	LB135373
	Silver	1260	1250	101	90 - 110	P	04/10/2025	17:56	LB135373
CCV09	Arsenic	4850	5000	97	90 - 110	P	04/10/2025	18:19	LB135373
	Barium	9730	10000	97	90 - 110	P	04/10/2025	18:19	LB135373
	Cadmium	2350	2500	94	90 - 110	P	04/10/2025	18:19	LB135373
	Chromium	1000	1000	100	90 - 110	P	04/10/2025	18:19	LB135373
	Lead	4720	5000	94	90 - 110	P	04/10/2025	18:19	LB135373
	Selenium	4930	5000	99	90 - 110	P	04/10/2025	18:19	LB135373
	Silver	1240	1250	99	90 - 110	P	04/10/2025	18:19	LB135373

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Arsenic	1060	1000	106	90 - 110	P	04/14/2025	13:56	LB135424
	Barium	534	520	103	90 - 110	P	04/14/2025	13:56	LB135424
	Cadmium	507	510	99	90 - 110	P	04/14/2025	13:56	LB135424
	Chromium	507	520	98	90 - 110	P	04/14/2025	13:56	LB135424
	Lead	1000	1000	100	90 - 110	P	04/14/2025	13:56	LB135424
	Selenium	1050	1000	105	90 - 110	P	04/14/2025	13:56	LB135424
	Silver	246	250	98	90 - 110	P	04/14/2025	13:56	LB135424

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

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	22.8	20.0	114	80 - 120	P	04/14/2025	14:01	LB135424
	Barium	96.1	100	96	80 - 120	P	04/14/2025	14:01	LB135424
	Cadmium	6.12	6.0	102	80 - 120	P	04/14/2025	14:01	LB135424
	Chromium	9.81	10.0	98	80 - 120	P	04/14/2025	14:01	LB135424
	Lead	12.4	12.0	103	80 - 120	P	04/14/2025	14:01	LB135424
	Selenium	19.0	20.0	95	80 - 120	P	04/14/2025	14:01	LB135424
	Silver	10.0	10.0	100	80 - 120	P	04/14/2025	14:01	LB135424

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

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	04/14/2025	14:31	LB135424
	Barium	9640	10000	96	90 - 110	P	04/14/2025	14:31	LB135424
	Cadmium	2460	2500	98	90 - 110	P	04/14/2025	14:31	LB135424
	Chromium	1000	1000	100	90 - 110	P	04/14/2025	14:31	LB135424
	Lead	4940	5000	99	90 - 110	P	04/14/2025	14:31	LB135424
	Selenium	4930	5000	98	90 - 110	P	04/14/2025	14:31	LB135424
	Silver	1250	1250	100	90 - 110	P	04/14/2025	14:31	LB135424
CCV02	Arsenic	4930	5000	99	90 - 110	P	04/14/2025	15:22	LB135424
	Barium	9580	10000	96	90 - 110	P	04/14/2025	15:22	LB135424
	Cadmium	2460	2500	98	90 - 110	P	04/14/2025	15:22	LB135424
	Chromium	995	1000	100	90 - 110	P	04/14/2025	15:22	LB135424
	Lead	4930	5000	98	90 - 110	P	04/14/2025	15:22	LB135424
	Selenium	4970	5000	99	90 - 110	P	04/14/2025	15:22	LB135424
	Silver	1230	1250	98	90 - 110	P	04/14/2025	15:22	LB135424
CCV03	Arsenic	4890	5000	98	90 - 110	P	04/14/2025	16:28	LB135424
	Barium	9870	10000	99	90 - 110	P	04/14/2025	16:28	LB135424
	Cadmium	2470	2500	99	90 - 110	P	04/14/2025	16:28	LB135424
	Chromium	983	1000	98	90 - 110	P	04/14/2025	16:28	LB135424
	Lead	4930	5000	99	90 - 110	P	04/14/2025	16:28	LB135424
	Selenium	4900	5000	98	90 - 110	P	04/14/2025	16:28	LB135424
	Silver	1230	1250	99	90 - 110	P	04/14/2025	16:28	LB135424
CCV04	Arsenic	4920	5000	98	90 - 110	P	04/14/2025	17:18	LB135424
	Barium	9580	10000	96	90 - 110	P	04/14/2025	17:18	LB135424
	Cadmium	2480	2500	99	90 - 110	P	04/14/2025	17:18	LB135424
	Chromium	1000	1000	100	90 - 110	P	04/14/2025	17:18	LB135424
	Lead	4940	5000	99	90 - 110	P	04/14/2025	17:18	LB135424
	Selenium	4950	5000	99	90 - 110	P	04/14/2025	17:18	LB135424
	Silver	1240	1250	99	90 - 110	P	04/14/2025	17:18	LB135424
CCV05	Arsenic	4860	5000	97	90 - 110	P	04/14/2025	18:16	LB135424
	Barium	9570	10000	96	90 - 110	P	04/14/2025	18:16	LB135424
	Cadmium	2470	2500	99	90 - 110	P	04/14/2025	18:16	LB135424
	Chromium	986	1000	99	90 - 110	P	04/14/2025	18:16	LB135424
	Lead	4920	5000	98	90 - 110	P	04/14/2025	18:16	LB135424
	Selenium	4910	5000	98	90 - 110	P	04/14/2025	18:16	LB135424

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

Metals

- 2a -
INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Silver	1230	1250	98	90 - 110	P	04/14/2025	18:16	LB135424
CCV06	Arsenic	4780	5000	96	90 - 110	P	04/14/2025	19:07	LB135424
	Barium	9740	10000	97	90 - 110	P	04/14/2025	19:07	LB135424
	Cadmium	2460	2500	98	90 - 110	P	04/14/2025	19:07	LB135424
	Chromium	957	1000	96	90 - 110	P	04/14/2025	19:07	LB135424
	Lead	4870	5000	98	90 - 110	P	04/14/2025	19:07	LB135424
	Selenium	4820	5000	96	90 - 110	P	04/14/2025	19:07	LB135424
	Silver	1190	1250	95	90 - 110	P	04/14/2025	19:07	LB135424
CCV07	Arsenic	4740	5000	95	90 - 110	P	04/14/2025	19:57	LB135424
	Barium	9610	10000	96	90 - 110	P	04/14/2025	19:57	LB135424
	Cadmium	2430	2500	97	90 - 110	P	04/14/2025	19:57	LB135424
	Chromium	974	1000	97	90 - 110	P	04/14/2025	19:57	LB135424
	Lead	4820	5000	96	90 - 110	P	04/14/2025	19:57	LB135424
	Selenium	4770	5000	95	90 - 110	P	04/14/2025	19:57	LB135424
	Silver	1200	1250	96	90 - 110	P	04/14/2025	19:57	LB135424
CCV08	Arsenic	4810	5000	96	90 - 110	P	04/14/2025	20:48	LB135424
	Barium	9830	10000	98	90 - 110	P	04/14/2025	20:48	LB135424
	Cadmium	2440	2500	98	90 - 110	P	04/14/2025	20:48	LB135424
	Chromium	955	1000	96	90 - 110	P	04/14/2025	20:48	LB135424
	Lead	4850	5000	97	90 - 110	P	04/14/2025	20:48	LB135424
	Selenium	4860	5000	97	90 - 110	P	04/14/2025	20:48	LB135424
	Silver	1190	1250	96	90 - 110	P	04/14/2025	20:48	LB135424
CCV09	Arsenic	4770	5000	95	90 - 110	P	04/14/2025	21:38	LB135424
	Barium	9610	10000	96	90 - 110	P	04/14/2025	21:38	LB135424
	Cadmium	2430	2500	97	90 - 110	P	04/14/2025	21:38	LB135424
	Chromium	973	1000	97	90 - 110	P	04/14/2025	21:38	LB135424
	Lead	4840	5000	97	90 - 110	P	04/14/2025	21:38	LB135424
	Selenium	4800	5000	96	90 - 110	P	04/14/2025	21:38	LB135424
	Silver	1220	1250	97	90 - 110	P	04/14/2025	21:38	LB135424
CCV10	Arsenic	4830	5000	97	90 - 110	P	04/14/2025	22:28	LB135424
	Barium	9670	10000	97	90 - 110	P	04/14/2025	22:28	LB135424
	Cadmium	2450	2500	98	90 - 110	P	04/14/2025	22:28	LB135424
	Chromium	977	1000	98	90 - 110	P	04/14/2025	22:28	LB135424
	Lead	4870	5000	97	90 - 110	P	04/14/2025	22:28	LB135424

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

Metals

- 2a -

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

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	4880	5000	98	90 - 110	P	04/14/2025	22:28	LB135424
	Silver	1220	1250	98	90 - 110	P	04/14/2025	22:28	LB135424
CCV11	Arsenic	4800	5000	96	90 - 110	P	04/14/2025	22:40	LB135424
	Barium	9830	10000	98	90 - 110	P	04/14/2025	22:40	LB135424
	Cadmium	2450	2500	98	90 - 110	P	04/14/2025	22:40	LB135424
	Chromium	958	1000	96	90 - 110	P	04/14/2025	22:40	LB135424
	Lead	4850	5000	97	90 - 110	P	04/14/2025	22:40	LB135424
	Selenium	4850	5000	97	90 - 110	P	04/14/2025	22:40	LB135424
	Silver	1210	1250	97	90 - 110	P	04/14/2025	22:40	LB135424
CCV12	Arsenic	4760	5000	95	90 - 110	P	04/14/2025	23:06	LB135424
	Barium	9900	10000	99	90 - 110	P	04/14/2025	23:06	LB135424
	Cadmium	2430	2500	97	90 - 110	P	04/14/2025	23:06	LB135424
	Chromium	965	1000	96	90 - 110	P	04/14/2025	23:06	LB135424
	Lead	4830	5000	97	90 - 110	P	04/14/2025	23:06	LB135424
	Selenium	4800	5000	96	90 - 110	P	04/14/2025	23:06	LB135424
	Silver	1200	1250	96	90 - 110	P	04/14/2025	23:06	LB135424

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

Metals

- 2b -
CRDL STANDARD FOR AA & ICP

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Arsenic	18.9	20.0	95	40 - 160	P	04/10/2025	10:33	LB135373
	Barium	85.4	100	85	40 - 160	P	04/10/2025	10:33	LB135373
	Cadmium	5.51	6.0	92	40 - 160	P	04/10/2025	10:33	LB135373
	Chromium	9.42	10.0	94	40 - 160	P	04/10/2025	10:33	LB135373
	Lead	11.6	12.0	97	40 - 160	P	04/10/2025	10:33	LB135373
	Selenium	18.1	20.0	91	40 - 160	P	04/10/2025	10:33	LB135373
	Silver	10.4	10.0	104	40 - 160	P	04/10/2025	10:33	LB135373
CRA	Mercury	0.19	0.2	96	40 - 160	CV	04/10/2025	13:10	LB135365
CRI01	Arsenic	22.3	20.0	112	40 - 160	P	04/14/2025	14:09	LB135424
	Barium	95.6	100	96	40 - 160	P	04/14/2025	14:09	LB135424
	Cadmium	6.08	6.0	101	40 - 160	P	04/14/2025	14:09	LB135424
	Chromium	9.67	10.0	97	40 - 160	P	04/14/2025	14:09	LB135424
	Lead	12.2	12.0	102	40 - 160	P	04/14/2025	14:09	LB135424
	Selenium	19.6	20.0	98	40 - 160	P	04/14/2025	14:09	LB135424
	Silver	9.88	10.0	99	40 - 160	P	04/14/2025	14:09	LB135424

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB83	Mercury	0.20	+/-0.20	U	0.20	CV	04/10/2025	13:03	LB135365

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB53	Mercury	0.20	+/-0.20	U	0.20	CV	04/10/2025	13:08	LB135365
CCB54	Mercury	0.20	+/-0.20	U	0.20	CV	04/10/2025	13:41	LB135365
CCB55	Mercury	0.20	+/-0.20	U	0.20	CV	04/10/2025	14:08	LB135365
CCB56	Mercury	0.20	+/-0.20	U	0.20	CV	04/10/2025	14:38	LB135365
CCB57	Mercury	0.20	+/-0.20	U	0.20	CV	04/10/2025	15:08	LB135365
CCB58	Mercury	0.20	+/-0.20	U	0.20	CV	04/10/2025	15:28	LB135365

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Arsenic	20.0	+/-20.0	U	20.0	P	04/10/2025	10:29	LB135373
	Barium	100	+/-100	U	100	P	04/10/2025	10:29	LB135373
	Cadmium	6.00	+/-6.00	U	6.00	P	04/10/2025	10:29	LB135373
	Chromium	10.0	+/-10.0	U	10.0	P	04/10/2025	10:29	LB135373
	Lead	12.0	+/-12.0	U	12.0	P	04/10/2025	10:29	LB135373
	Selenium	20.0	+/-20.0	U	20.0	P	04/10/2025	10:29	LB135373
	Silver	10.0	+/-10.0	U	10.0	P	04/10/2025	10:29	LB135373

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Arsenic	20.0	+/-20.0	U	20.0	P	04/10/2025	11:21	LB135373
	Barium	100	+/-100	U	100	P	04/10/2025	11:21	LB135373
	Cadmium	6.00	+/-6.00	U	6.00	P	04/10/2025	11:21	LB135373
	Chromium	10.0	+/-10.0	U	10.0	P	04/10/2025	11:21	LB135373
	Lead	12.0	+/-12.0	U	12.0	P	04/10/2025	11:21	LB135373
	Selenium	20.0	+/-20.0	U	20.0	P	04/10/2025	11:21	LB135373
	Silver	10.0	+/-10.0	U	10.0	P	04/10/2025	11:21	LB135373
CCB02	Arsenic	20.0	+/-20.0	U	20.0	P	04/10/2025	12:12	LB135373
	Barium	100	+/-100	U	100	P	04/10/2025	12:12	LB135373
	Cadmium	6.00	+/-6.00	U	6.00	P	04/10/2025	12:12	LB135373
	Chromium	10.0	+/-10.0	U	10.0	P	04/10/2025	12:12	LB135373
	Lead	12.0	+/-12.0	U	12.0	P	04/10/2025	12:12	LB135373
	Selenium	20.0	+/-20.0	U	20.0	P	04/10/2025	12:12	LB135373
	Silver	10.0	+/-10.0	U	10.0	P	04/10/2025	12:12	LB135373
CCB03	Arsenic	20.0	+/-20.0	U	20.0	P	04/10/2025	13:04	LB135373
	Barium	100	+/-100	U	100	P	04/10/2025	13:04	LB135373
	Cadmium	6.00	+/-6.00	U	6.00	P	04/10/2025	13:04	LB135373
	Chromium	10.0	+/-10.0	U	10.0	P	04/10/2025	13:04	LB135373
	Lead	12.0	+/-12.0	U	12.0	P	04/10/2025	13:04	LB135373
	Selenium	20.0	+/-20.0	U	20.0	P	04/10/2025	13:04	LB135373
	Silver	10.0	+/-10.0	U	10.0	P	04/10/2025	13:04	LB135373
CCB04	Arsenic	20.0	+/-20.0	U	20.0	P	04/10/2025	13:55	LB135373
	Barium	100	+/-100	U	100	P	04/10/2025	13:55	LB135373
	Cadmium	6.00	+/-6.00	U	6.00	P	04/10/2025	13:55	LB135373
	Chromium	10.0	+/-10.0	U	10.0	P	04/10/2025	13:55	LB135373
	Lead	12.0	+/-12.0	U	12.0	P	04/10/2025	13:55	LB135373
	Selenium	20.0	+/-20.0	U	20.0	P	04/10/2025	13:55	LB135373
	Silver	10.0	+/-10.0	U	10.0	P	04/10/2025	13:55	LB135373
CCB05	Arsenic	20.0	+/-20.0	U	20.0	P	04/10/2025	14:49	LB135373
	Barium	100	+/-100	U	100	P	04/10/2025	14:49	LB135373
	Cadmium	6.00	+/-6.00	U	6.00	P	04/10/2025	14:49	LB135373
	Chromium	10.0	+/-10.0	U	10.0	P	04/10/2025	14:49	LB135373
	Lead	12.0	+/-12.0	U	12.0	P	04/10/2025	14:49	LB135373
	Selenium	20.0	+/-20.0	U	20.0	P	04/10/2025	14:49	LB135373
	Silver	10.0	+/-10.0	U	10.0	P	04/10/2025	14:49	LB135373
CCB06	Arsenic	20.0	+/-20.0	U	20.0	P	04/10/2025	15:48	LB135373
	Barium	100	+/-100	U	100	P	04/10/2025	15:48	LB135373
	Cadmium	6.00	+/-6.00	U	6.00	P	04/10/2025	15:48	LB135373
	Chromium	10.0	+/-10.0	U	10.0	P	04/10/2025	15:48	LB135373

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Lead	12.0	+/-12.0	U	12.0	P	04/10/2025	15:48	LB135373
	Selenium	20.0	+/-20.0	U	20.0	P	04/10/2025	15:48	LB135373
	Silver	10.0	+/-10.0	U	10.0	P	04/10/2025	15:48	LB135373
CCB07	Arsenic	20.0	+/-20.0	U	20.0	P	04/10/2025	17:00	LB135373
	Barium	100	+/-100	U	100	P	04/10/2025	17:00	LB135373
	Cadmium	6.00	+/-6.00	U	6.00	P	04/10/2025	17:00	LB135373
	Chromium	10.0	+/-10.0	U	10.0	P	04/10/2025	17:00	LB135373
	Lead	12.0	+/-12.0	U	12.0	P	04/10/2025	17:00	LB135373
	Selenium	20.0	+/-20.0	U	20.0	P	04/10/2025	17:00	LB135373
	Silver	10.0	+/-10.0	U	10.0	P	04/10/2025	17:00	LB135373
CCB08	Arsenic	20.0	+/-20.0	U	20.0	P	04/10/2025	18:00	LB135373
	Barium	100	+/-100	U	100	P	04/10/2025	18:00	LB135373
	Cadmium	6.00	+/-6.00	U	6.00	P	04/10/2025	18:00	LB135373
	Chromium	10.0	+/-10.0	U	10.0	P	04/10/2025	18:00	LB135373
	Lead	12.0	+/-12.0	U	12.0	P	04/10/2025	18:00	LB135373
	Selenium	20.0	+/-20.0	U	20.0	P	04/10/2025	18:00	LB135373
	Silver	10.0	+/-10.0	U	10.0	P	04/10/2025	18:00	LB135373
CCB09	Arsenic	20.0	+/-20.0	U	20.0	P	04/10/2025	18:23	LB135373
	Barium	100	+/-100	U	100	P	04/10/2025	18:23	LB135373
	Cadmium	6.00	+/-6.00	U	6.00	P	04/10/2025	18:23	LB135373
	Chromium	10.0	+/-10.0	U	10.0	P	04/10/2025	18:23	LB135373
	Lead	12.0	+/-12.0	U	12.0	P	04/10/2025	18:23	LB135373
	Selenium	20.0	+/-20.0	U	20.0	P	04/10/2025	18:23	LB135373
	Silver	10.0	+/-10.0	U	10.0	P	04/10/2025	18:23	LB135373

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Arsenic	20.0	+/-20.0	U	20.0	P	04/14/2025	14:05	LB135424
	Barium	100	+/-100	U	100	P	04/14/2025	14:05	LB135424
	Cadmium	6.00	+/-6.00	U	6.00	P	04/14/2025	14:05	LB135424
	Chromium	10.0	+/-10.0	U	10.0	P	04/14/2025	14:05	LB135424
	Lead	12.0	+/-12.0	U	12.0	P	04/14/2025	14:05	LB135424
	Selenium	20.0	+/-20.0	U	20.0	P	04/14/2025	14:05	LB135424
	Silver	10.0	+/-10.0	U	10.0	P	04/14/2025	14:05	LB135424

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Arsenic	20.0	+/-20.0	U	20.0	P	04/14/2025	14:35	LB135424
	Barium	100	+/-100	U	100	P	04/14/2025	14:35	LB135424
	Cadmium	6.00	+/-6.00	U	6.00	P	04/14/2025	14:35	LB135424
	Chromium	10.0	+/-10.0	U	10.0	P	04/14/2025	14:35	LB135424
	Lead	12.0	+/-12.0	U	12.0	P	04/14/2025	14:35	LB135424
	Selenium	20.0	+/-20.0	U	20.0	P	04/14/2025	14:35	LB135424
	Silver	10.0	+/-10.0	U	10.0	P	04/14/2025	14:35	LB135424
CCB02	Arsenic	20.0	+/-20.0	U	20.0	P	04/14/2025	15:26	LB135424
	Barium	100	+/-100	U	100	P	04/14/2025	15:26	LB135424
	Cadmium	6.00	+/-6.00	U	6.00	P	04/14/2025	15:26	LB135424
	Chromium	10.0	+/-10.0	U	10.0	P	04/14/2025	15:26	LB135424
	Lead	12.0	+/-12.0	U	12.0	P	04/14/2025	15:26	LB135424
	Selenium	20.0	+/-20.0	U	20.0	P	04/14/2025	15:26	LB135424
	Silver	10.0	+/-10.0	U	10.0	P	04/14/2025	15:26	LB135424
CCB03	Arsenic	20.0	+/-20.0	U	20.0	P	04/14/2025	16:32	LB135424
	Barium	100	+/-100	U	100	P	04/14/2025	16:32	LB135424
	Cadmium	6.00	+/-6.00	U	6.00	P	04/14/2025	16:32	LB135424
	Chromium	10.0	+/-10.0	U	10.0	P	04/14/2025	16:32	LB135424
	Lead	12.0	+/-12.0	U	12.0	P	04/14/2025	16:32	LB135424
	Selenium	20.0	+/-20.0	U	20.0	P	04/14/2025	16:32	LB135424
	Silver	10.0	+/-10.0	U	10.0	P	04/14/2025	16:32	LB135424
CCB04	Arsenic	20.0	+/-20.0	U	20.0	P	04/14/2025	17:22	LB135424
	Barium	100	+/-100	U	100	P	04/14/2025	17:22	LB135424
	Cadmium	6.00	+/-6.00	U	6.00	P	04/14/2025	17:22	LB135424
	Chromium	10.0	+/-10.0	U	10.0	P	04/14/2025	17:22	LB135424
	Lead	12.0	+/-12.0	U	12.0	P	04/14/2025	17:22	LB135424
	Selenium	20.0	+/-20.0	U	20.0	P	04/14/2025	17:22	LB135424
	Silver	10.0	+/-10.0	U	10.0	P	04/14/2025	17:22	LB135424
CCB05	Arsenic	20.0	+/-20.0	U	20.0	P	04/14/2025	18:20	LB135424
	Barium	100	+/-100	U	100	P	04/14/2025	18:20	LB135424
	Cadmium	6.00	+/-6.00	U	6.00	P	04/14/2025	18:20	LB135424
	Chromium	10.0	+/-10.0	U	10.0	P	04/14/2025	18:20	LB135424
	Lead	12.0	+/-12.0	U	12.0	P	04/14/2025	18:20	LB135424
	Selenium	20.0	+/-20.0	U	20.0	P	04/14/2025	18:20	LB135424
	Silver	10.0	+/-10.0	U	10.0	P	04/14/2025	18:20	LB135424
CCB06	Arsenic	20.0	+/-20.0	U	20.0	P	04/14/2025	19:11	LB135424
	Barium	100	+/-100	U	100	P	04/14/2025	19:11	LB135424
	Cadmium	6.00	+/-6.00	U	6.00	P	04/14/2025	19:11	LB135424
	Chromium	10.0	+/-10.0	U	10.0	P	04/14/2025	19:11	LB135424

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Lead	12.0	+/-12.0	U	12.0	P	04/14/2025	19:11	LB135424
	Selenium	20.0	+/-20.0	U	20.0	P	04/14/2025	19:11	LB135424
	Silver	10.0	+/-10.0	U	10.0	P	04/14/2025	19:11	LB135424
CCB07	Arsenic	20.0	+/-20.0	U	20.0	P	04/14/2025	20:01	LB135424
	Barium	100	+/-100	U	100	P	04/14/2025	20:01	LB135424
	Cadmium	6.00	+/-6.00	U	6.00	P	04/14/2025	20:01	LB135424
	Chromium	10.0	+/-10.0	U	10.0	P	04/14/2025	20:01	LB135424
	Lead	12.0	+/-12.0	U	12.0	P	04/14/2025	20:01	LB135424
	Selenium	20.0	+/-20.0	U	20.0	P	04/14/2025	20:01	LB135424
	Silver	10.0	+/-10.0	U	10.0	P	04/14/2025	20:01	LB135424
CCB08	Arsenic	20.0	+/-20.0	U	20.0	P	04/14/2025	20:52	LB135424
	Barium	100	+/-100	U	100	P	04/14/2025	20:52	LB135424
	Cadmium	6.00	+/-6.00	U	6.00	P	04/14/2025	20:52	LB135424
	Chromium	10.0	+/-10.0	U	10.0	P	04/14/2025	20:52	LB135424
	Lead	12.0	+/-12.0	U	12.0	P	04/14/2025	20:52	LB135424
	Selenium	20.0	+/-20.0	U	20.0	P	04/14/2025	20:52	LB135424
	Silver	10.0	+/-10.0	U	10.0	P	04/14/2025	20:52	LB135424
CCB09	Arsenic	20.0	+/-20.0	U	20.0	P	04/14/2025	21:42	LB135424
	Barium	100	+/-100	U	100	P	04/14/2025	21:42	LB135424
	Cadmium	6.00	+/-6.00	U	6.00	P	04/14/2025	21:42	LB135424
	Chromium	10.0	+/-10.0	U	10.0	P	04/14/2025	21:42	LB135424
	Lead	12.0	+/-12.0	U	12.0	P	04/14/2025	21:42	LB135424
	Selenium	20.0	+/-20.0	U	20.0	P	04/14/2025	21:42	LB135424
	Silver	10.0	+/-10.0	U	10.0	P	04/14/2025	21:42	LB135424
CCB10	Arsenic	20.0	+/-20.0	U	20.0	P	04/14/2025	22:32	LB135424
	Barium	100	+/-100	U	100	P	04/14/2025	22:32	LB135424
	Cadmium	6.00	+/-6.00	U	6.00	P	04/14/2025	22:32	LB135424
	Chromium	10.0	+/-10.0	U	10.0	P	04/14/2025	22:32	LB135424
	Lead	12.0	+/-12.0	U	12.0	P	04/14/2025	22:32	LB135424
	Selenium	20.0	+/-20.0	U	20.0	P	04/14/2025	22:32	LB135424
	Silver	10.0	+/-10.0	U	10.0	P	04/14/2025	22:32	LB135424
CCB11	Arsenic	20.0	+/-20.0	U	20.0	P	04/14/2025	22:44	LB135424
	Barium	100	+/-100	U	100	P	04/14/2025	22:44	LB135424
	Cadmium	6.00	+/-6.00	U	6.00	P	04/14/2025	22:44	LB135424
	Chromium	10.0	+/-10.0	U	10.0	P	04/14/2025	22:44	LB135424
	Lead	12.0	+/-12.0	U	12.0	P	04/14/2025	22:44	LB135424
	Selenium	20.0	+/-20.0	U	20.0	P	04/14/2025	22:44	LB135424
	Silver	10.0	+/-10.0	U	10.0	P	04/14/2025	22:44	LB135424
CCB12	Arsenic	20.0	+/-20.0	U	20.0	P	04/14/2025	23:11	LB135424

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

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB12	Barium	100	+/-100	U	100	P	04/14/2025	23:11	LB135424
	Cadmium	6.00	+/-6.00	U	6.00	P	04/14/2025	23:11	LB135424
	Chromium	10.0	+/-10.0	U	10.0	P	04/14/2025	23:11	LB135424
	Lead	12.0	+/-12.0	U	12.0	P	04/14/2025	23:11	LB135424
	Selenium	20.0	+/-20.0	U	20.0	P	04/14/2025	23:11	LB135424
	Silver	10.0	+/-10.0	U	10.0	P	04/14/2025	23:11	LB135424

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

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Instrument: CV1

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB167517TB		**WATER**		**Batch Number:**	**PB167539**		**Prep Date:**	**04/10/2025**	
	Mercury	2.00	<2.00	U	2.00	CV	04/10/2025	15:12	LB135365
Sample ID	**Analyte**	**Result (ug/L)**	**Acceptance Limit**	**Conc Qual**	**CRQL ug/L**	**M**	**Analysis Date**	**Analysis Time**	**Run**
PB167539BL		**WATER**		**Batch Number:**	**PB167539**		**Prep Date:**	**04/10/2025**	
	Mercury	0.20	<0.20	U	0.20	CV	04/10/2025	13:17	LB135365

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

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB167517TB		**WATER**		**Batch Number:**	**PB167533**		**Prep Date:**	**04/09/2025**	
	Arsenic	100	<100	U	100	P	04/10/2025	16:43	LB135373
	Barium	500	<500	U	500	P	04/10/2025	16:43	LB135373
	Cadmium	30.0	<30.0	U	30.0	P	04/10/2025	16:43	LB135373
	Chromium	50.0	<50.0	U	50.0	P	04/10/2025	16:43	LB135373
	Lead	60.0	<60.0	U	60.0	P	04/10/2025	16:43	LB135373
	Selenium	100	<100	U	100	P	04/10/2025	16:43	LB135373
	Silver	50.0	<50.0	U	50.0	P	04/10/2025	16:43	LB135373

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB167533BL		**WATER**		**Batch Number:**	**PB167533**		**Prep Date:**	**04/09/2025**	
	Arsenic	100	<100	U	100	P	04/14/2025	15:56	LB135424
	Barium	500	<500	U	500	P	04/14/2025	15:56	LB135424
	Cadmium	30.0	<30.0	U	30.0	P	04/14/2025	15:56	LB135424
	Chromium	50.0	<50.0	U	50.0	P	04/14/2025	15:56	LB135424
	Lead	60.0	<60.0	U	60.0	P	04/14/2025	15:56	LB135424
	Selenium	100	<100	U	100	P	04/14/2025	15:56	LB135424
	Silver	50.0	<50.0	U	50.0	P	04/14/2025	15:56	LB135424

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

Metals
- 4 -
INTERFERENCE CHECK SAMPLE

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

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	5.16			-20	20	04/10/2025	10:37	LB135373
	Barium	-3.92	6.0	65	-94	106	04/10/2025	10:37	LB135373
	Cadmium	-3.53	1.0	353	-5	7	04/10/2025	10:37	LB135373
	Chromium	55.8	52.0	107	42	62	04/10/2025	10:37	LB135373
	Lead	7.32			-12	12	04/10/2025	10:37	LB135373
	Selenium	-8.19			-20	20	04/10/2025	10:37	LB135373
	Silver	3.75			-10	10	04/10/2025	10:37	LB135373
ICSAB01	Arsenic	111	104	107	88.4	120	04/10/2025	10:42	LB135373
	Barium	459	537	86	437	637	04/10/2025	10:42	LB135373
	Cadmium	981	972	101	826	1120	04/10/2025	10:42	LB135373
	Chromium	553	542	102	460	624	04/10/2025	10:42	LB135373
	Lead	57.3	49.0	117	37	61	04/10/2025	10:42	LB135373
	Selenium	36.7	46.0	80	26	66	04/10/2025	10:42	LB135373
	Silver	186	201	92	170	232	04/10/2025	10:42	LB135373
ICSA01	Arsenic	10.8			-20	20	04/14/2025	14:14	LB135424
	Barium	4.69	6.0	78	-94	106	04/14/2025	14:14	LB135424
	Cadmium	-1.94	1.0	194	-5	7	04/14/2025	14:14	LB135424
	Chromium	55.2	52.0	106	42	62	04/14/2025	14:14	LB135424
	Lead	5.03			-12	12	04/14/2025	14:14	LB135424
	Selenium	-0.72			-20	20	04/14/2025	14:14	LB135424
	Silver	-3.74			-10	10	04/14/2025	14:14	LB135424
ICSAB01	Arsenic	114	104	110	88.4	120	04/14/2025	14:18	LB135424
	Barium	479	537	89	437	637	04/14/2025	14:18	LB135424
	Cadmium	1040	972	107	826	1120	04/14/2025	14:18	LB135424
	Chromium	553	542	102	460	624	04/14/2025	14:18	LB135424
	Lead	53.8	49.0	110	37	61	04/14/2025	14:18	LB135424
	Selenium	47.1	46.0	102	26	66	04/14/2025	14:18	LB135424
	Silver	179	201	89	170	232	04/14/2025	14:18	LB135424

METAL
QC
DATA

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

metals
- 5a -
MATRIX SPIKE SUMMARY

client: Portal Partners Tri-Venture **level:** low **sdg no.:** Q1746

contract: PORT06 **lab code:** CHEM **case no.:** Q1746 **sas no.:** Q1746

matrix: Water **sample id:** Q1743-04 **client id:** TP-16MS

Percent Solids for Sample: NA **Spiked ID:** Q1743-04MS **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/L	75 - 125	3390		100	U	4000	85		P
Barium	ug/L	75 - 125	3120		2470		1000	65	N	P
Cadmium	ug/L	75 - 125	865		4.92	J	1000	86		P
Chromium	ug/L	75 - 125	1680		50.0	U	2000	84		P
Lead	ug/L	75 - 125	6040		2220		5000	76		P
Mercury	ug/L	75 - 125	36.6		2.00	U	40.0	92		CV
Selenium	ug/L	75 - 125	8320		100	U	10000	83		P
Silver	ug/L	75 - 125	310		50.0	U	380	82		P

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

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: Portal Partners Tri-Venture **level:** low **sdg no.:** Q1746

contract: PORT06 **lab code:** CHEM **case no.:** Q1746 **sas no.:** Q1746

matrix: Water **sample id:** Q1743-04 **client id:** TP-16MSD

Percent Solids for Sample: NA **Spiked ID:** Q1743-04MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/L	75 - 125	3500		100	U	4000	88		P
Barium	ug/L	75 - 125	3020		2470		1000	54	N	P
Cadmium	ug/L	75 - 125	872		4.92	J	1000	87		P
Chromium	ug/L	75 - 125	1700		50.0	U	2000	85		P
Lead	ug/L	75 - 125	6110		2220		5000	78		P
Mercury	ug/L	75 - 125	35.5		2.00	U	40.0	89		CV
Selenium	ug/L	75 - 125	8540		100	U	10000	85		P
Silver	ug/L	75 - 125	314		50.0	U	380	83		P

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

Metals
- 5b -
POST DIGEST SPIKE SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

Matrix: Water **Level:** LOW **Client ID:** TP-16A

Sample ID: Q1743-04 **Spiked ID:** Q1743-04A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Barium	ug/L	75 - 125	3250		2470		1000	77		P

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

Metals

- 6 -
DUPLICATE SAMPLE SUMMARY

Client: Portal Partners Tri-Venture **Level:** LOW **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

Matrix: Water **Sample ID:** Q1743-04 **Client ID:** TP-16DUP

Percent Solids for Sample: NA **Duplicate ID** Q1743-04DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/L	20	100	U	100	U			P
Barium	ug/L	20	2470		2440		1		P
Cadmium	ug/L	20	4.92	J	5.01	J	2		P
Chromium	ug/L	20	50.0	U	14.2	J	200.0		P
Lead	ug/L	20	2220		2220		0		P
Mercury	ug/L	20	2.00	U	2.00	U			CV
Selenium	ug/L	20	100	U	100	U			P
Silver	ug/L	20	50.0	U	50.0	U			P

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

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

Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: Portal Partners Tri-Venture **Level:** LOW **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

Matrix: Water **Sample ID:** Q1743-04MS **Client ID:** TP-16MSD

Percent Solids for Sample: NA **Duplicate ID** Q1743-04MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/L	20	3390		3500		3		P
Barium	ug/L	20	3120		3020		3		P
Cadmium	ug/L	20	865		872		1		P
Chromium	ug/L	20	1680		1700		1		P
Lead	ug/L	20	6040		6110		1		P
Mercury	ug/L	20	36.6		35.5		3		CV
Selenium	ug/L	20	8320		8540		3		P
Silver	ug/L	20	310		314		1		P

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

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

LABORATORY CONTROL SAMPLE SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB167533BS							
Arsenic	ug/L	4000	4080		102	80 - 120	P
Barium	ug/L	1000	968		97	80 - 120	P
Cadmium	ug/L	1000	1020		102	80 - 120	P
Chromium	ug/L	2000	2010		100	80 - 120	P
Lead	ug/L	5000	5050		101	80 - 120	P
Selenium	ug/L	10000	10200		102	80 - 120	P
Silver	ug/L	380	372		98	80 - 120	P

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

LABORATORY CONTROL SAMPLE SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB167539BS							
Mercury	ug/L	4.0	3.80		95	80 - 120	CV

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

Metals

-9 -

ICP SERIAL DILUTIONS

SAMPLE NO.

TP-16L

Lab Name: Chemtech Consulting Group **Contract:** PORT06

Lab Code: CHEM **Lb No.:** lb135424 **Lab Sample ID :** Q1743-04L **SDG No.:** Q1746

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

Concentration Units: ug/L

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Arsenic	100	U	500	U			P
Barium	2470		2500		1		P
Cadmium	4.92	J	5.82	J	18		P
Chromium	50.0	U	39.7	J	100.0		P
Lead	2220		2330		5		P
Mercury	2.00	U	10.0	U			CV
Selenium	100	U	500	U			P
Silver	50.0	U	250	U			P

METAL PREPARATION & INSTRUMENT DATA

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

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

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

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

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

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

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

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

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

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

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

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

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

Metals
- 11 -
ICP INTERELEMENT CORRECTION FACTORS

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Case No.:** Q1746 **SAS No.:** Q1746

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: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Method:**

Case No.: Q1746 **SAS No.:** Q1746

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB167533**						
PB167517TB	PB167517TB	MB	WATER	04/09/2025	5.0	25.0	
PB167533BL	PB167533BL	MB	WATER	04/09/2025	5.0	25.0	
PB167533BS	PB167533BS	LCS	WATER	04/09/2025	5.0	25.0	
Q1743-04DUP	TP-16DUP	DUP	WATER	04/09/2025	5.0	25.0	
Q1743-04MS	TP-16MS	MS	WATER	04/09/2025	5.0	25.0	
Q1743-04MSD	TP-16MSD	MSD	WATER	04/09/2025	5.0	25.0	
Q1746-02	B-149-SB01	SAM	WATER	04/09/2025	5.0	25.0	
Q1746-04	B-149-SB02	SAM	WATER	04/09/2025	5.0	25.0	

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

Metals
- 13 -
SAMPLE PREPARATION SUMMARY

Client: Portal Partners Tri-Venture **SDG No.:** Q1746

Contract: PORT06 **Lab Code:** CHEM **Method:**

Case No.: Q1746 **SAS No.:** Q1746

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB167539**						
PB167517TB	PB167517TB	MB	WATER	04/10/2025	3.0	30.0	
PB167539BL	PB167539BL	MB	WATER	04/10/2025	30.0	30.0	
PB167539BS	PB167539BS	LCS	WATER	04/10/2025	30.0	30.0	
Q1743-04DUP	TP-16DUP	DUP	WATER	04/10/2025	3.0	30.0	
Q1743-04MS	TP-16MS	MS	WATER	04/10/2025	3.0	30.0	
Q1743-04MSD	TP-16MSD	MSD	WATER	04/10/2025	3.0	30.0	
Q1746-02	B-149-SB01	SAM	WATER	04/10/2025	3.0	30.0	
Q1746-04	B-149-SB02	SAM	WATER	04/10/2025	3.0	30.0	

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

metals
- 14 -
ANALYSIS RUN LOG

Client: Portal Partners Tri-Venture **Contract:** PORT06

Lab code: CHEM **Case no.:** Q1746 **Sas no.:** Q1746 **Sdg no.:** Q1746

Instrument id number: **Method:** **Run number:** LB135365

Start date: 04/10/2025 **End date:** 04/10/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1241	HG
S0.2	S0.2	1	1244	HG
S2.5	S2.5	1	1246	HG
S5	S5	1	1248	HG
S7.5	S7.5	1	1250	HG
S10	S10	1	1253	HG
ICV83	ICV83	1	1301	HG
ICB83	ICB83	1	1303	HG
CCV53	CCV53	1	1306	HG
CCB53	CCB53	1	1308	HG
CRA	CRA	1	1310	HG
PB167539BL	PB167539BL	1	1317	HG
PB167539BS	PB167539BS	1	1322	HG
Q1743-04DUP	TP-16DUP	1	1327	HG
Q1743-04MS	TP-16MS	1	1331	HG
Q1743-04MSD	TP-16MSD	1	1334	HG
CCV54	CCV54	1	1338	HG
CCB54	CCB54	1	1341	HG
Q1746-02	B-149-SB01	1	1350	HG
Q1746-04	B-149-SB02	1	1352	HG
CCV55	CCV55	1	1406	HG
CCB55	CCB55	1	1408	HG
CCV56	CCV56	1	1436	HG
CCB56	CCB56	1	1438	HG
CCV57	CCV57	1	1506	HG
CCB57	CCB57	1	1508	HG
PB167517TB	PB167517TB	1	1512	HG
Q1743-04L	TP-16L	5	1517	HG
CCV58	CCV58	1	1526	HG
CCB58	CCB58	1	1528	HG

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

metals
- 14 -
ANALYSIS RUN LOG

Client: Portal Partners Tri-Venture **Contract:** PORT06

Lab code: CHEM **Case no.:** Q1746 **Sas no.:** Q1746 **Sdg no.:** Q1746

Instrument id number: **Method:** **Run number:** LB135373

Start date: 04/10/2025 **End date:** 04/10/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	0930	Ag,As,Ba,Cd,Cr,Pb,Se
S1	S1	1	0935	Ag,As,Ba,Cd,Cr,Pb,Se
S2	S2	1	0939	Ag,As,Ba,Cd,Cr,Pb,Se
S3	S3	1	0943	Ag,As,Ba,Cd,Cr,Pb,Se
S4	S4	1	0947	Ag,As,Ba,Cd,Cr,Pb,Se
S5	S5	1	0951	Ag,As,Ba,Cd,Cr,Pb,Se
ICV01	ICV01	1	1009	Ag,As,Ba,Cd,Cr,Pb,Se
LLICV01	LLICV01	1	1025	Ag,As,Ba,Cd,Cr,Pb,Se
ICB01	ICB01	1	1029	Ag,As,Ba,Cd,Cr,Pb,Se
CRI01	CRI01	1	1033	Ag,As,Ba,Cd,Cr,Pb,Se
ICSA01	ICSA01	1	1037	Ag,As,Ba,Cd,Cr,Pb,Se
ICSAB01	ICSAB01	1	1042	Ag,As,Ba,Cd,Cr,Pb,Se
CCV01	CCV01	1	1100	Ag,As,Ba,Cd,Cr,Pb,Se
CCB01	CCB01	1	1121	Ag,As,Ba,Cd,Cr,Pb,Se
CCV02	CCV02	1	1208	Ag,As,Ba,Cd,Cr,Pb,Se
CCB02	CCB02	1	1212	Ag,As,Ba,Cd,Cr,Pb,Se
CCV03	CCV03	1	1259	Ag,As,Ba,Cd,Cr,Pb,Se
CCB03	CCB03	1	1304	Ag,As,Ba,Cd,Cr,Pb,Se
CCV04	CCV04	1	1351	Ag,As,Ba,Cd,Cr,Pb,Se
CCB04	CCB04	1	1355	Ag,As,Ba,Cd,Cr,Pb,Se
CCV05	CCV05	1	1444	Ag,As,Ba,Cd,Cr,Pb,Se
CCB05	CCB05	1	1449	Ag,As,Ba,Cd,Cr,Pb,Se
CCV06	CCV06	1	1544	Ag,As,Ba,Cd,Cr,Pb,Se
CCB06	CCB06	1	1548	Ag,As,Ba,Cd,Cr,Pb,Se
PB167517TB	PB167517TB	1	1643	Ag,As,Ba,Cd,Cr,Pb,Se
CCV07	CCV07	1	1656	Ag,As,Ba,Cd,Cr,Pb,Se
CCB07	CCB07	1	1700	Ag,As,Ba,Cd,Cr,Pb,Se
CCV08	CCV08	1	1756	Ag,As,Ba,Cd,Cr,Pb,Se
CCB08	CCB08	1	1800	Ag,As,Ba,Cd,Cr,Pb,Se
CCV09	CCV09	1	1819	Ag,As,Ba,Cd,Cr,Pb,Se
CCB09	CCB09	1	1823	Ag,As,Ba,Cd,Cr,Pb,Se

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

metals
- 14 -
ANALYSIS RUN LOG

Client: Portal Partners Tri-Venture **Contract:** PORT06

Lab code: CHEM **Case no.:** Q1746 **Sas no.:** Q1746 **Sdg no.:** Q1746

Instrument id number: **Method:** **Run number:** LB135424

Start date: 04/14/2025 **End date:** 04/14/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1313	Ag,As,Ba,Cd,Cr,Pb,Se
S1	S1	1	1317	Ag,As,Ba,Cd,Cr,Pb,Se
S2	S2	1	1322	Ag,As,Ba,Cd,Cr,Pb,Se
S3	S3	1	1326	Ag,As,Ba,Cd,Cr,Pb,Se
S4	S4	1	1330	Ag,As,Ba,Cd,Cr,Pb,Se
S5	S5	1	1334	Ag,As,Ba,Cd,Cr,Pb,Se
ICV01	ICV01	1	1356	Ag,As,Ba,Cd,Cr,Pb,Se
LLICV01	LLICV01	1	1401	Ag,As,Ba,Cd,Cr,Pb,Se
ICB01	ICB01	1	1405	Ag,As,Ba,Cd,Cr,Pb,Se
CRI01	CRI01	1	1409	Ag,As,Ba,Cd,Cr,Pb,Se
ICSA01	ICSA01	1	1414	Ag,As,Ba,Cd,Cr,Pb,Se
ICSAB01	ICSAB01	1	1418	Ag,As,Ba,Cd,Cr,Pb,Se
CCV01	CCV01	1	1431	Ag,As,Ba,Cd,Cr,Pb,Se
CCB01	CCB01	1	1435	Ag,As,Ba,Cd,Cr,Pb,Se
Q1743-04DUP	TP-16DUP	1	1444	Ag,As,Ba,Cd,Cr,Pb,Se
Q1743-04L	TP-16L	5	1448	Ag,As,Ba,Cd,Cr,Pb,Se
Q1743-04MS	TP-16MS	1	1452	Ag,As,Ba,Cd,Cr,Pb,Se
Q1743-04MSD	TP-16MSD	1	1457	Ag,As,Ba,Cd,Cr,Pb,Se
Q1743-04A	TP-16A	1	1501	Ba
CCV02	CCV02	1	1522	Ag,As,Ba,Cd,Cr,Pb,Se
CCB02	CCB02	1	1526	Ag,As,Ba,Cd,Cr,Pb,Se
PB167533BL	PB167533BL	1	1556	Ag,As,Ba,Cd,Cr,Pb,Se
PB167533BS	PB167533BS	1	1601	Ag,As,Ba,Cd,Cr,Pb,Se
CCV03	CCV03	1	1628	Ag,As,Ba,Cd,Cr,Pb,Se
CCB03	CCB03	1	1632	Ag,As,Ba,Cd,Cr,Pb,Se
CCV04	CCV04	1	1718	Ag,As,Ba,Cd,Cr,Pb,Se
CCB04	CCB04	1	1722	Ag,As,Ba,Cd,Cr,Pb,Se
CCV05	CCV05	1	1816	Ag,As,Ba,Cd,Cr,Pb,Se
CCB05	CCB05	1	1820	Ag,As,Ba,Cd,Cr,Pb,Se
CCV06	CCV06	1	1907	Ag,As,Ba,Cd,Cr,Pb,Se
CCB06	CCB06	1	1911	Ag,As,Ba,Cd,Cr,Pb,Se
CCV07	CCV07	1	1957	Ag,As,Ba,Cd,Cr,Pb,Se
CCB07	CCB07	1	2001	Ag,As,Ba,Cd,Cr,Pb,Se
Q1746-02	B-149-SB01	1	2034	Ag,As,Ba,Cd,Cr,Pb,Se
Q1746-04	B-149-SB02	1	2039	Ag,As,Ba,Cd,Cr,Pb,Se
CCV08	CCV08	1	2048	Ag,As,Ba,Cd,Cr,Pb,Se
CCB08	CCB08	1	2052	Ag,As,Ba,Cd,Cr,Pb,Se
CCV09	CCV09	1	2138	Ag,As,Ba,Cd,Cr,Pb,Se
CCB09	CCB09	1	2142	Ag,As,Ba,Cd,Cr,Pb,Se
CCV10	CCV10	1	2228	Ag,As,Ba,Cd,Cr,Pb,Se
CCB10	CCB10	1	2232	Ag,As,Ba,Cd,Cr,Pb,Se

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

metals
- 14 -
ANALYSIS RUN LOG

Client: Portal Partners Tri-Venture **Contract:** PORT06

Lab code: CHEM **Case no.:** Q1746 **Sas no.:** Q1746 **Sdg no.:** Q1746

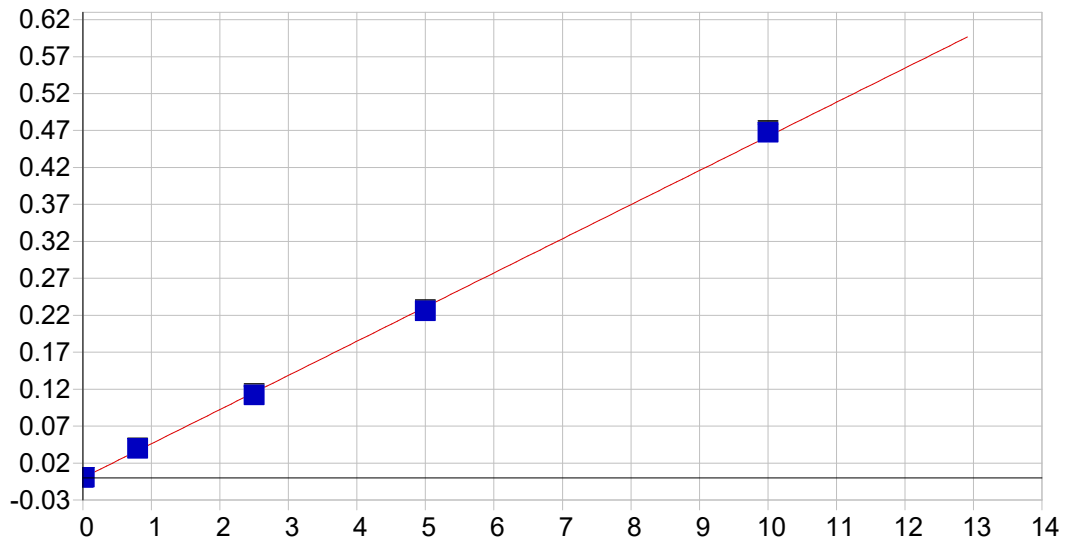
Instrument id number: **Method:** **Run number:** LB135424

Start date: 04/14/2025 **End date:** 04/14/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
CCV11	CCV11	1	2240	Ag,As,Ba,Cd,Cr,Pb,Se
CCB11	CCB11	1	2244	Ag,As,Ba,Cd,Cr,Pb,Se
CCV12	CCV12	1	2306	Ag,As,Ba,Cd,Cr,Pb,Se
CCB12	CCB12	1	2311	Ag,As,Ba,Cd,Cr,Pb,Se

METAL
RAW DATA

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



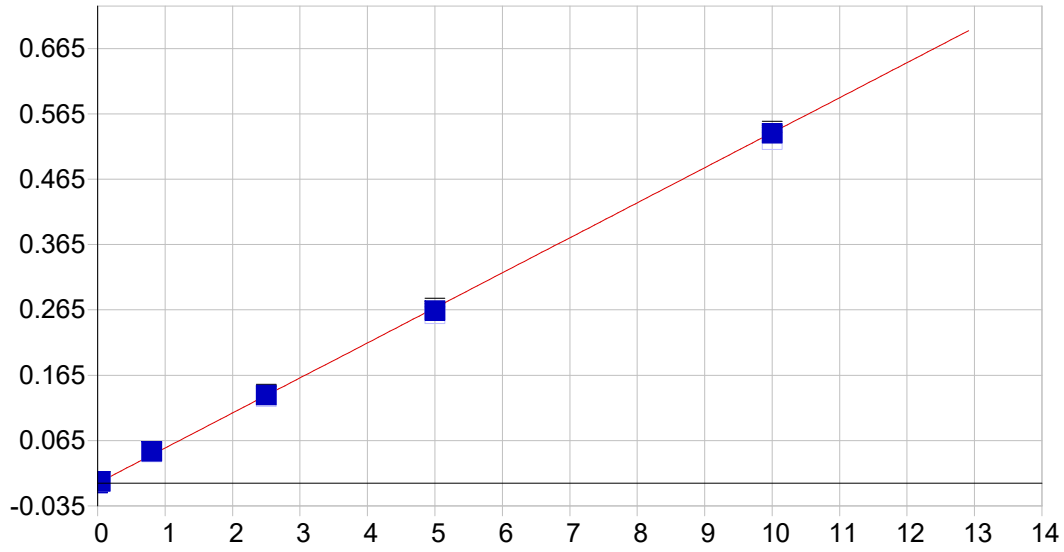
As 189.042 {479}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000082	Re-Slope:	1.000000
A1 (Gain):	0.046218	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999689	Status:	OK.
Std Error of Est:	0.000027		
Predicted MDL:	0.002522		
Predicted MQL:	0.008406		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00008	.000	1
S1	.02000	.02011	.000	.545	.00084	.000	1
S3	2.5000	2.4244	-.076	-3.02	.11184	.002	1
S4	5.0000	4.8907	-.109	-2.19	.22570	.001	1
S5	10.000	10.120	.120	1.20	.46714	.002	1
S2	.80000	.86483	.065	8.10	.03985	.000	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



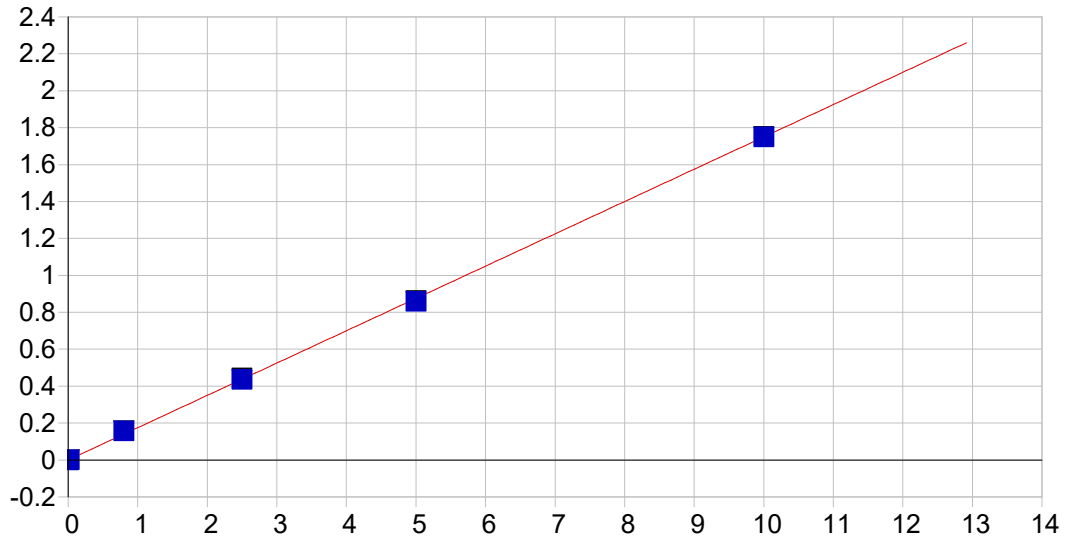
Tl 190.856 {477}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000009	Re-Slope:	1.000000
A1 (Gain):	0.053615	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999635	Status:	OK.
Std Error of Est:	0.000047		
Predicted MDL:	0.001828		
Predicted MQL:	0.006092		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00001	.000	1
S1	.04000	.03946	-.001	-1.35	.00199	.000	1
S3	2.5000	2.5038	.004	.152	.13178	.002	1
S4	5.0000	4.9184	-.082	-1.63	.25877	.004	1
S5	10.000	9.9823	-.018	-.177	.52533	.003	1
S2	.80000	.89599	.096	12.0	.04726	.000	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



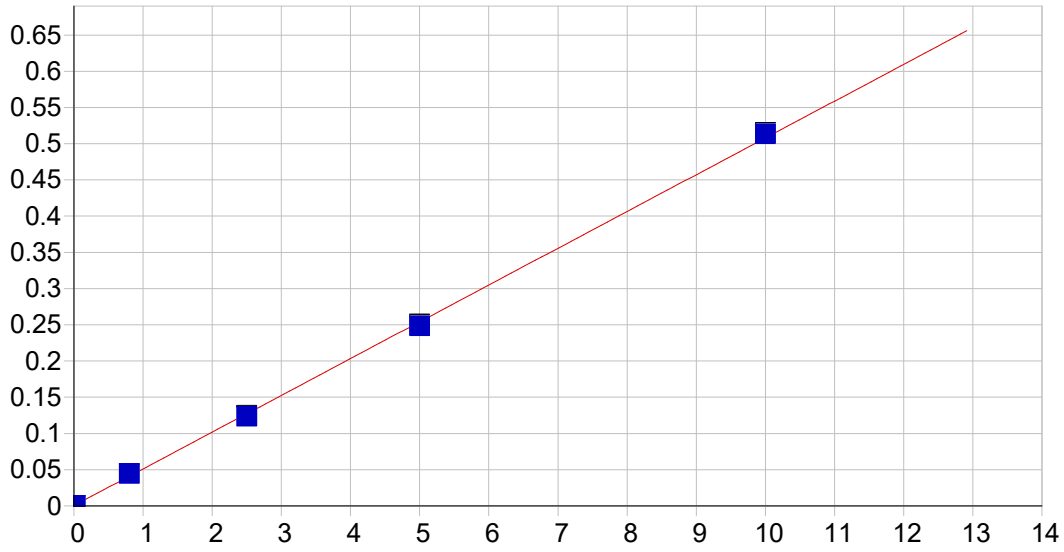
Pb 220.353 {453}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000007	Re-Slope:	1.000000
A1 (Gain):	0.175003	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999605	Status:	OK.
Std Error of Est:	0.000089		
Predicted MDL:	0.001384		
Predicted MQL:	0.004612		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00001	.000	1
S1	.01200	.01096	-.001	-8.63	.00187	.000	1
S3	2.5000	2.4961	-.004	-.156	.43634	.007	1
S4	5.0000	4.9086	-.091	-1.83	.85805	.003	1
S5	10.000	9.9957	-.004	-.043	1.7473	.002	1
S2	.80000	.90068	.101	12.6	.15746	.001	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



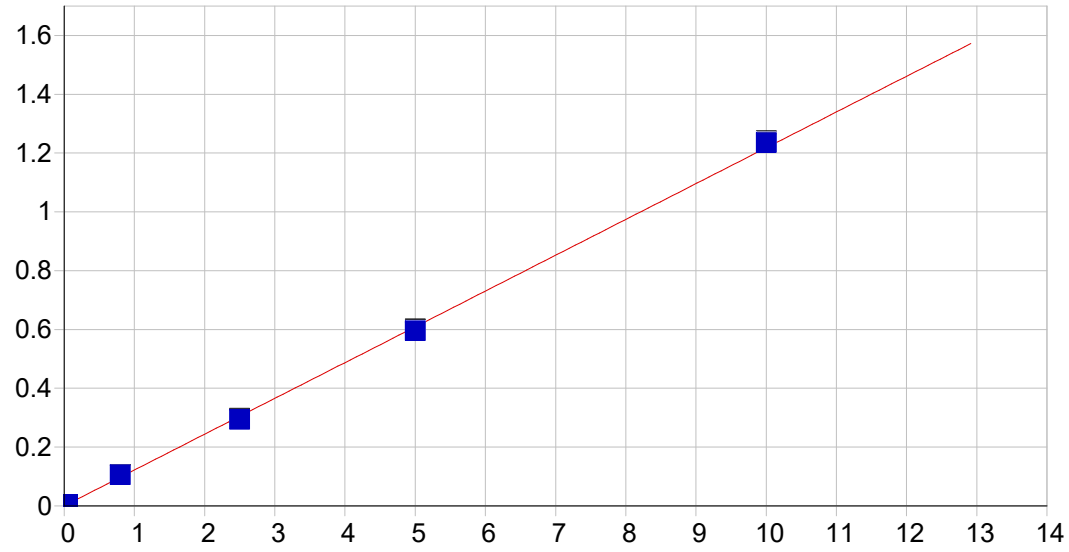
Se 196.090 {472}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000341	Re-Slope:	1.000000
A1 (Gain):	0.050757	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999665	Status:	OK.
Std Error of Est:	0.000031		
Predicted MDL:	0.002789		
Predicted MQL:	0.009296		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00034	.000	1
S1	.02000	.01715	-.003	-14.3	.00121	.000	1
S3	2.5000	2.4290	-.071	-2.84	.12358	.002	1
S4	5.0000	4.8899	-.110	-2.20	.24845	.003	1
S5	10.000	10.114	.114	1.14	.51352	.002	1
S2	.80000	.86992	.070	8.74	.04448	.000	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



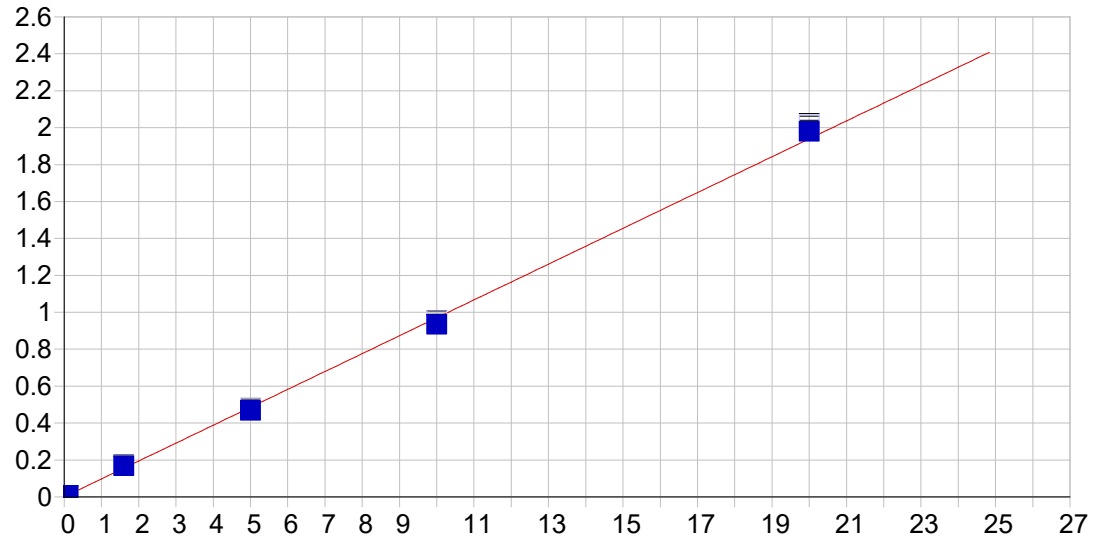
Sb 206.833 {463}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000285	Re-Slope:	1.000000
A1 (Gain):	0.121754	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999662	Status:	OK.
Std Error of Est:	0.000118		
Predicted MDL:	0.001756		
Predicted MQL:	0.005854		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00028	.000	1
S1	.05000	.04866	-.001	-2.67	.00622	.000	1
S3	2.5000	2.4114	-.089	-3.55	.29470	.004	1
S4	5.0000	4.8885	-.112	-2.23	.59713	.005	1
S5	10.000	10.139	.139	1.39	1.2381	.004	1
S2	.80000	.86234	.062	7.79	.10554	.000	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



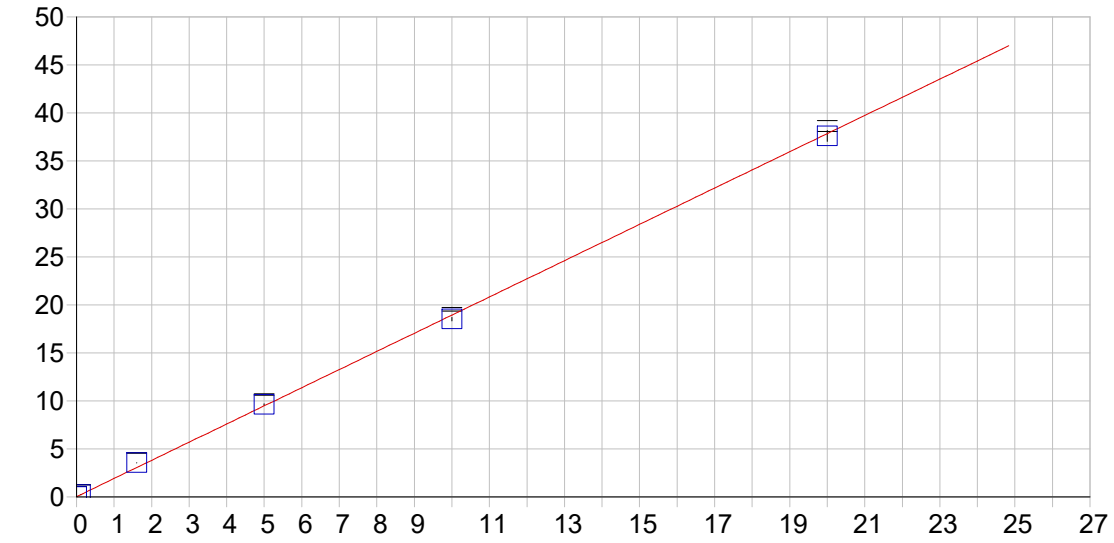
Al 396.152 { 85}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000586	Re-Slope:	1.000000
A1 (Gain):	0.096946	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999486	Status:	OK.
Std Error of Est:	0.000235		
Predicted MDL:	0.005139		
Predicted MQL:	0.017131		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00059	.000	1
S1	.10000	.09401	-.006	-5.99	.01045	.001	1
S3	5.0000	4.8300	-.170	-3.40	.47824	.001	1
S4	10.000	9.6352	-.365	-3.65	.95348	.001	1
S5	20.000	20.405	.405	2.02	2.0163	.007	1
S2	1.6000	1.7363	.136	8.52	.17192	.001	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



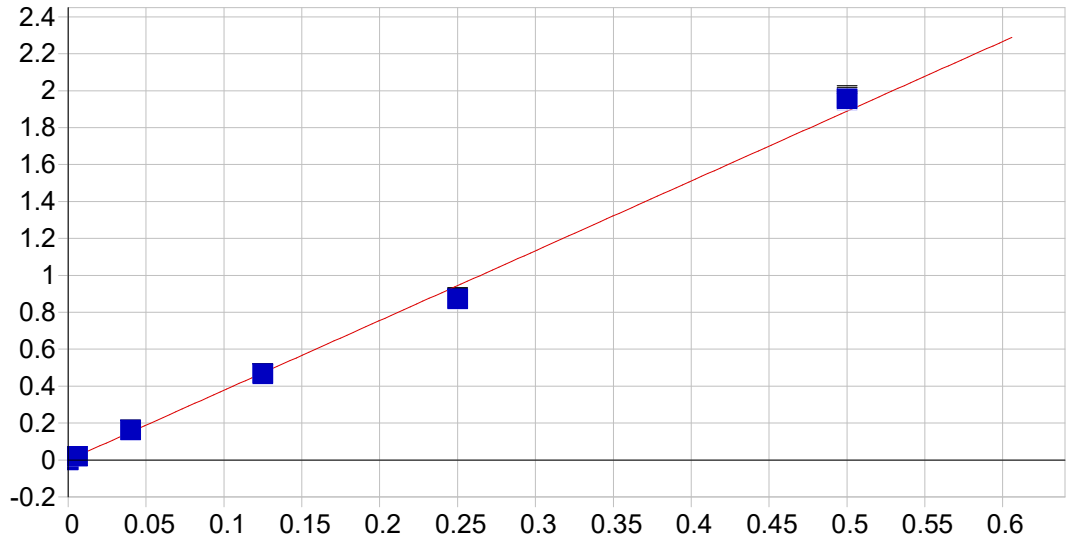
Ba 493.409 { 68}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.030975	Re-Slope:	1.000000
A1 (Gain):	1.890720	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999300	Status:	OK.
Std Error of Est:	0.005248		
Predicted MDL:	0.000911		
Predicted MQL:	0.003036		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00002	-.000	.000	.03095	.001	1
S1	.10000	.10033	.000	.332	.22067	.002	1
S3	5.0000	5.0784	.078	1.57	9.6327	.064	1
S4	10.000	9.7792	-.221	-2.21	18.521	.176	1
S5	20.000	19.875	-.125	-.624	37.609	.559	1
S2	1.6000	1.8669	.267	16.7	3.5608	.011	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



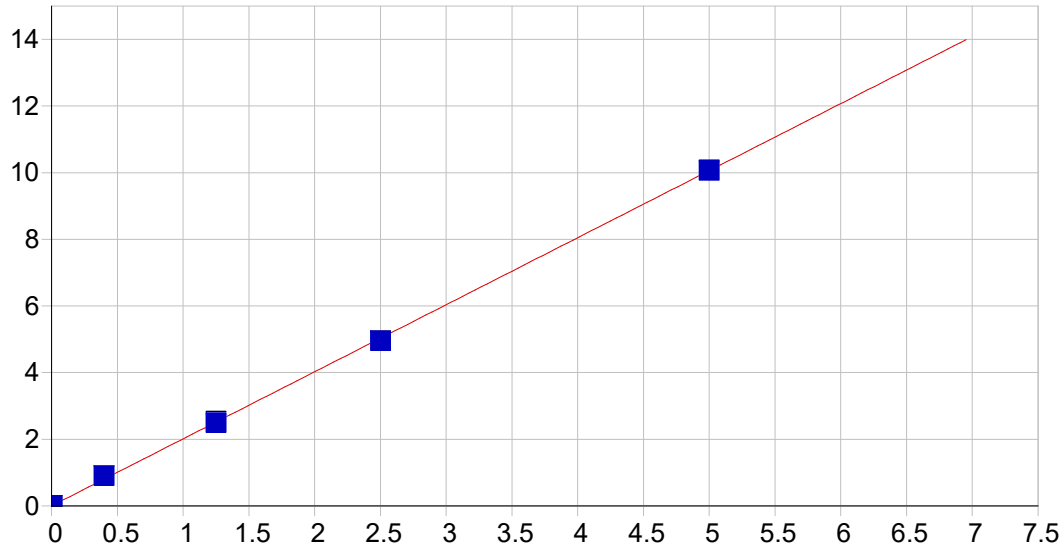
Be 234.861 {144}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000255	Re-Slope:	1.000000
A1 (Gain):	3.777939	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998724	Status:	OK.
Std Error of Est:	0.000547		
Predicted MDL:	0.000050		
Predicted MQL:	0.000167		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00025	.000	1
S1	.00600	.00542	-.001	-9.66	.02005	.000	1
S3	.12500	.12353	-.001	-1.18	.46431	.001	1
S4	.25000	.23122	-.019	-7.51	.86906	.006	1
S5	.50000	.51797	.018	3.59	1.9482	.016	1
S2	.04000	.04285	.003	7.13	.16096	.000	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



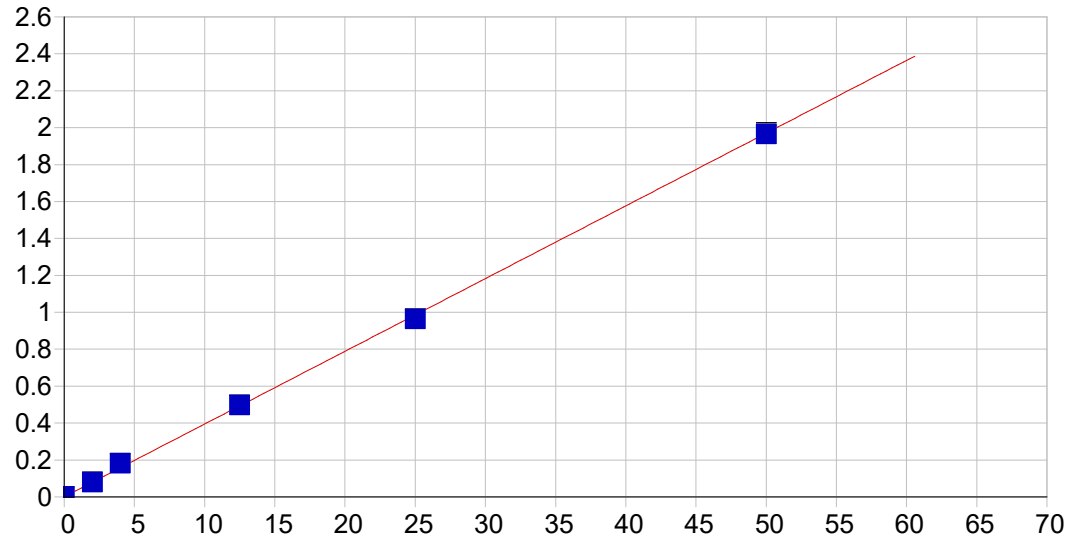
Cd 226.502 {449}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000204	Re-Slope:	1.000000
A1 (Gain):	2.012283	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999637	Status:	OK.
Std Error of Est:	0.000493		
Predicted MDL:	0.000083		
Predicted MQL:	0.000275		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00020	.000	1
S1	.00600	.00570	-.000	-4.96	.01174	.000	1
S3	1.2500	1.2416	-.008	-.669	2.5009	.040	1
S4	2.5000	2.4603	-.040	-1.59	4.9555	.013	1
S5	5.0000	4.9995	-.000	-.010	10.069	.013	1
S2	.40000	.44885	.049	12.2	.90412	.003	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



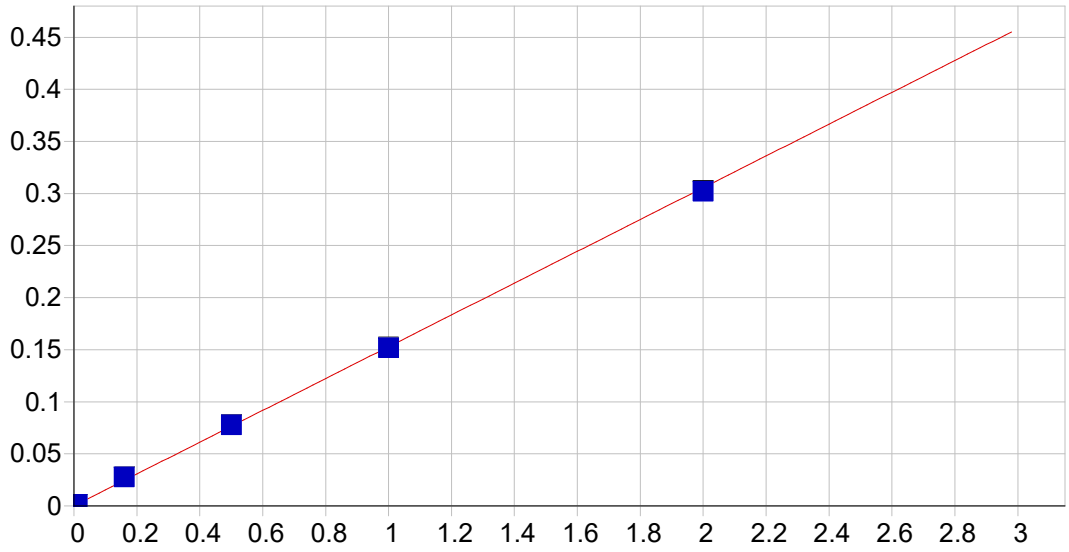
Ca 373.690 { 90}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000913	Re-Slope:	1.000000
A1 (Gain):	0.039390	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999477	Status:	OK.
Std Error of Est:	0.000674		
Predicted MDL:	0.009753		
Predicted MQL:	0.032511		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00024	-.000	.000	.00090	.000	1
S2	4.0000	4.5814	.581	14.5	.18137	.001	1
S3	12.500	12.600	.100	.798	.49721	.001	1
S4	25.000	24.452	-.548	-2.19	.96406	.001	1
S5	50.000	49.883	-.117	-.235	1.9658	.007	1
S1	2.0000	1.9844	-.016	-.778	.07908	.000	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



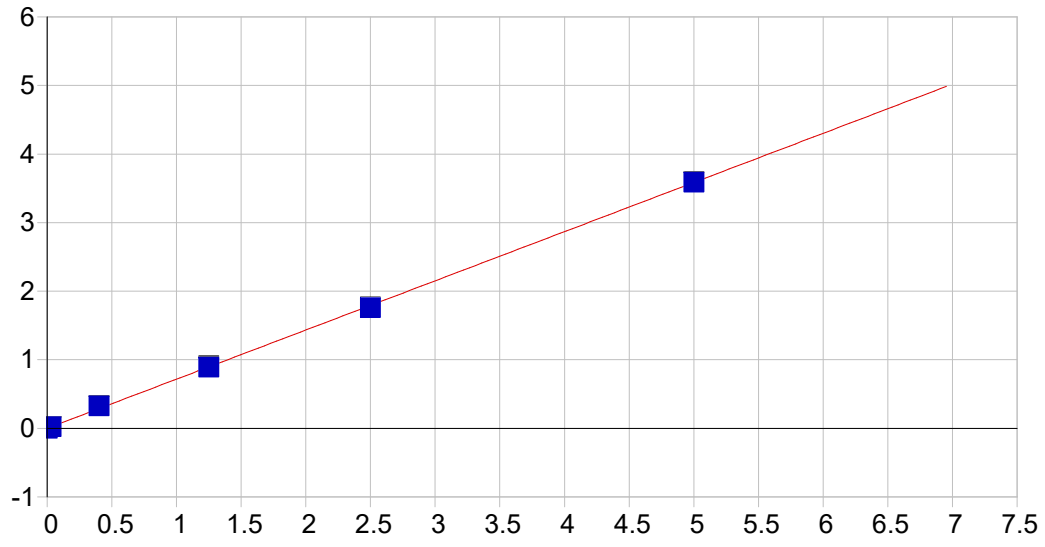
Cr 267.716 {126}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000117	Re-Slope:	1.000000
A1 (Gain):	0.152713	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999544	Status:	OK.
Std Error of Est:	0.000034		
Predicted MDL:	0.000364		
Predicted MQL:	0.001213		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00012	.000	1
S1	.01000	.00916	-.001	-8.36	.00152	.000	1
S3	.50000	.50848	.008	1.70	.07779	.000	1
S4	1.0000	.99365	-.006	-.635	.15191	.001	1
S5	2.0000	1.9774	-.023	-1.13	.30218	.000	1
S2	.16000	.18133	.021	13.3	.02782	.000	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



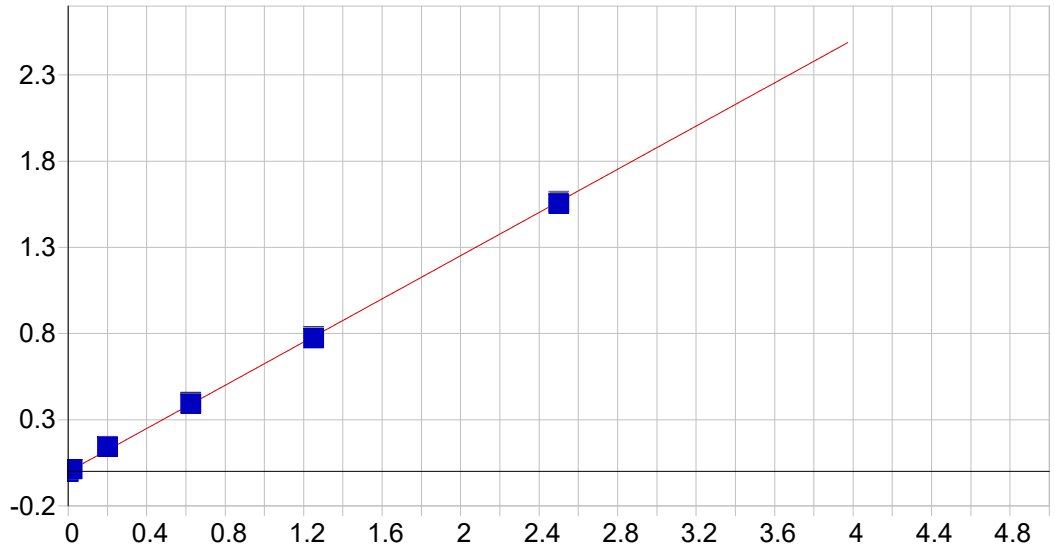
Co 228.616 {448}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000158	Re-Slope:	1.000000
A1 (Gain):	0.717042	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999594	Status:	OK.
Std Error of Est:	0.000416		
Predicted MDL:	0.000244		
Predicted MQL:	0.000813		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00016	.000	1
S1	.03000	.02933	-.001	-2.25	.02110	.000	1
S3	1.2500	1.2435	-.006	-.517	.89335	.015	1
S4	2.5000	2.4544	-.046	-1.82	1.7631	.005	1
S5	5.0000	5.0013	.001	.025	3.5924	.005	1
S2	.40000	.45143	.051	12.9	.32434	.001	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



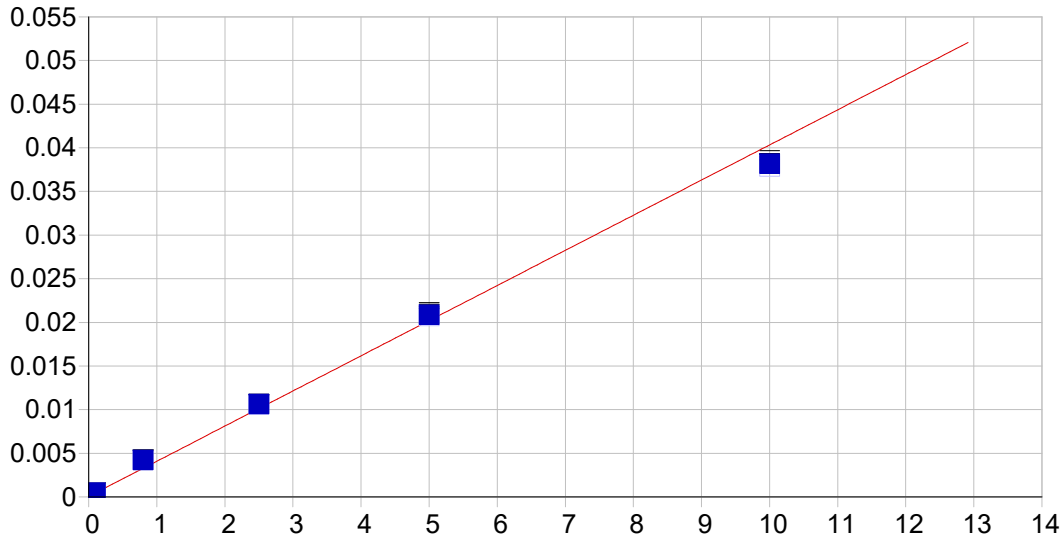
Cu 224.700 {450}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000487	Re-Slope:	1.000000
A1 (Gain):	0.626250	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999439	Status:	OK.
Std Error of Est:	0.000248		
Predicted MDL:	0.000401		
Predicted MQL:	0.001336		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00049	.000	1
S1	.02000	.02172	.002	8.59	.01324	.000	1
S3	.62500	.62843	.003	.549	.39584	.006	1
S4	1.2500	1.2350	-.015	-1.20	.77850	.004	1
S5	2.5000	2.4791	-.021	-.835	1.5632	.005	1
S2	.20000	.23069	.031	15.3	.14487	.000	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



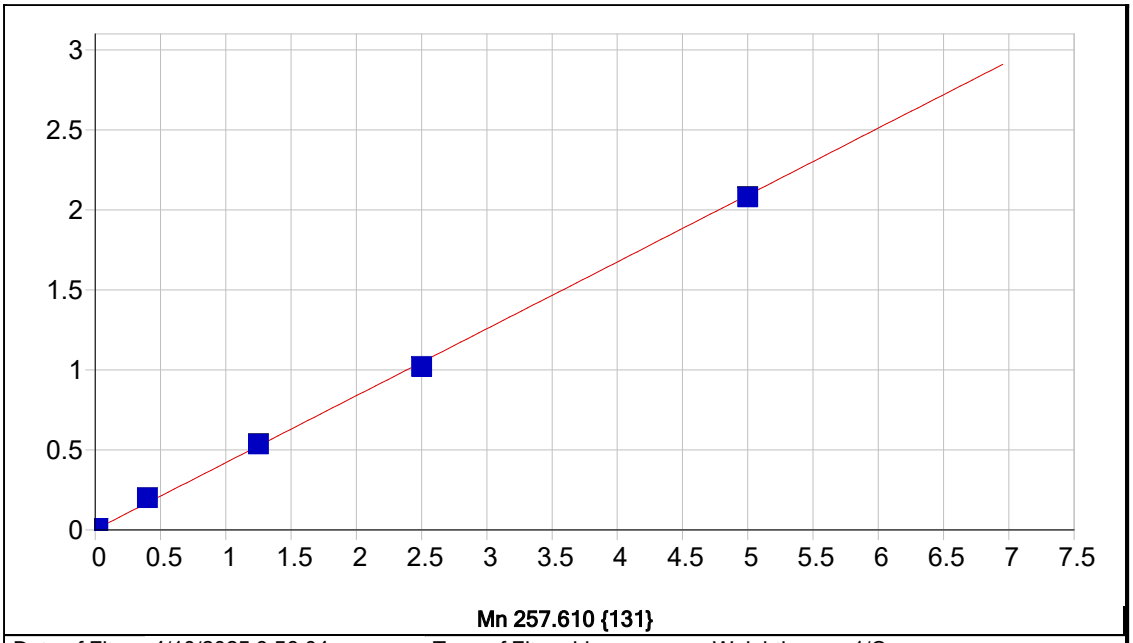
Fe 240.488 {140}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000059	Re-Slope:	1.000000
A1 (Gain):	0.004027	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.996956	Status:	OK.
Std Error of Est:	0.000016		
Predicted MDL:	0.004645		
Predicted MQL:	0.015485		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00004	-.000	.000	.00006	.000	1
S1	.10000	.10495	.005	4.95	.00048	.000	1
S3	2.5000	2.6244	.124	4.98	.01054	.000	1
S4	5.0000	5.1680	.168	3.36	.02070	.000	1
S5	10.000	9.4660	-.534	-5.34	.03784	.000	1
S2	.80000	1.0366	.237	29.6	.00421	.000	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



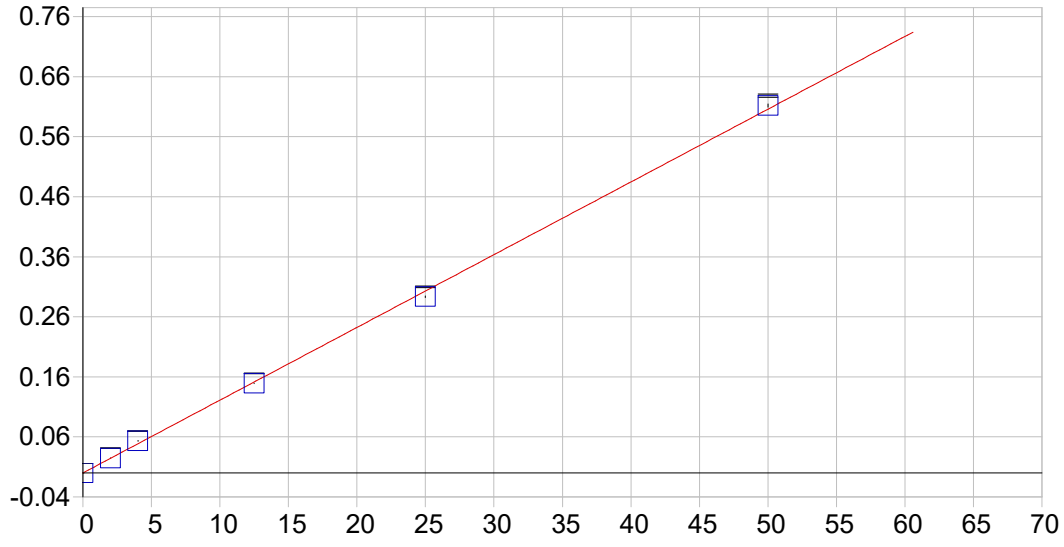
Mn 257.610 {131}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002233	Re-Slope:	1.000000
A1 (Gain):	0.418158	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999152	Status:	OK.
Std Error of Est:	0.000286		
Predicted MDL:	0.000362		
Predicted MQL:	0.001205		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00223	.000	1
S1	.02000	.01745	-.003	-12.8	.00953	.000	1
S3	1.2500	1.2784	.028	2.27	.53692	.002	1
S4	2.5000	2.4353	-.065	-2.59	1.0208	.001	1
S5	5.0000	4.9675	-.032	-.649	2.0799	.004	1
S2	.40000	.47131	.071	17.8	.19935	.000	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



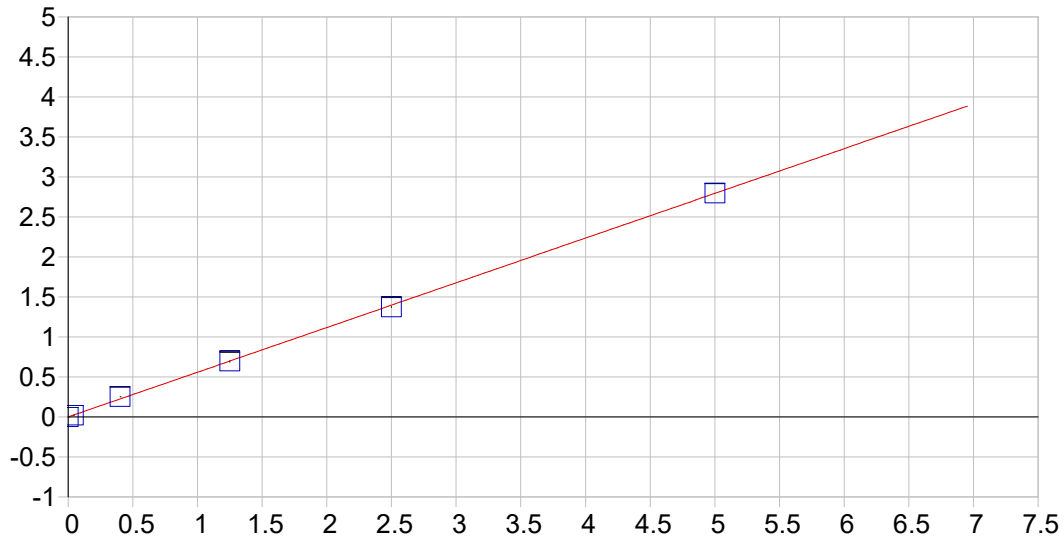
Mg 279.079 {121}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000081	Re-Slope:	1.000000
A1 (Gain):	0.012118	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999607	Status:	OK.
Std Error of Est:	0.000180		
Predicted MDL:	0.013807		
Predicted MQL:	0.046022		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00018	-.000	.000	-.00008	.000	1
S2	4.0000	4.4075	.408	10.2	.05333	.000	1
S3	12.500	12.329	-.171	-1.37	.14933	.001	1
S4	25.000	24.227	-.773	-3.09	.29351	.001	1
S5	50.000	50.494	.494	.989	.61184	.003	1
S1	2.0000	2.0421	.042	2.10	.02467	.000	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



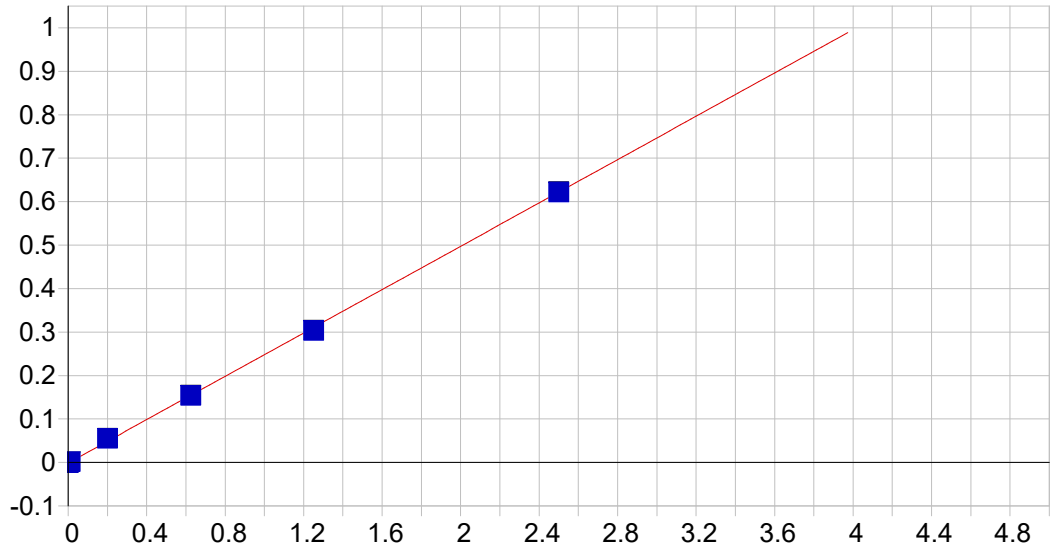
Ni 231.604 {446}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000032	Re-Slope:	1.000000
A1 (Gain):	0.558800	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999609	Status:	OK.
Std Error of Est:	0.000367		
Predicted MDL:	0.000292		
Predicted MQL:	0.000973		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00003	.000	1
S1	.04000	.03831	-.002	-4.23	.02138	.000	1
S3	1.2500	1.2423	-.008	-.613	.69418	.011	1
S4	2.5000	2.4573	-.043	-1.71	1.3731	.005	1
S5	5.0000	5.0016	.002	.032	2.7949	.002	1
S2	.40000	.45040	.050	12.6	.25165	.001	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



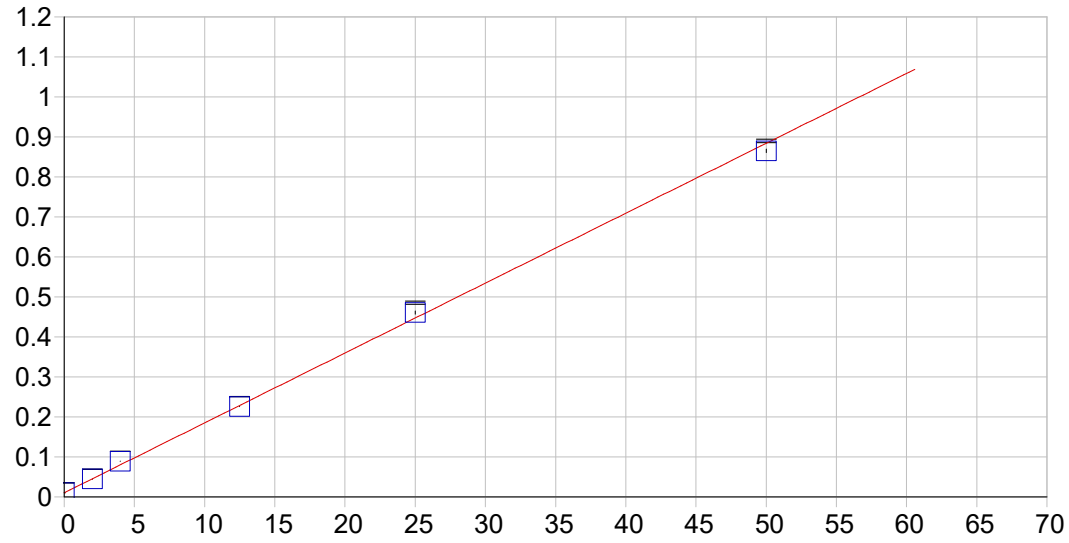
Ag 328.068 {103}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001208	Re-Slope:	1.000000
A1 (Gain):	0.249272	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999548	Status:	OK.
Std Error of Est:	0.000062		
Predicted MDL:	0.000321		
Predicted MQL:	0.001069		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00121	.000	1
S1	.01000	.00986	-.000	-1.38	.00123	.000	1
S3	.62500	.62398	-.001	-.163	.15371	.000	1
S4	1.2500	1.2233	-.027	-2.14	.30248	.000	1
S5	2.5000	2.5013	.001	.052	.61982	.000	1
S2	.20000	.22659	.027	13.3	.05508	.000	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



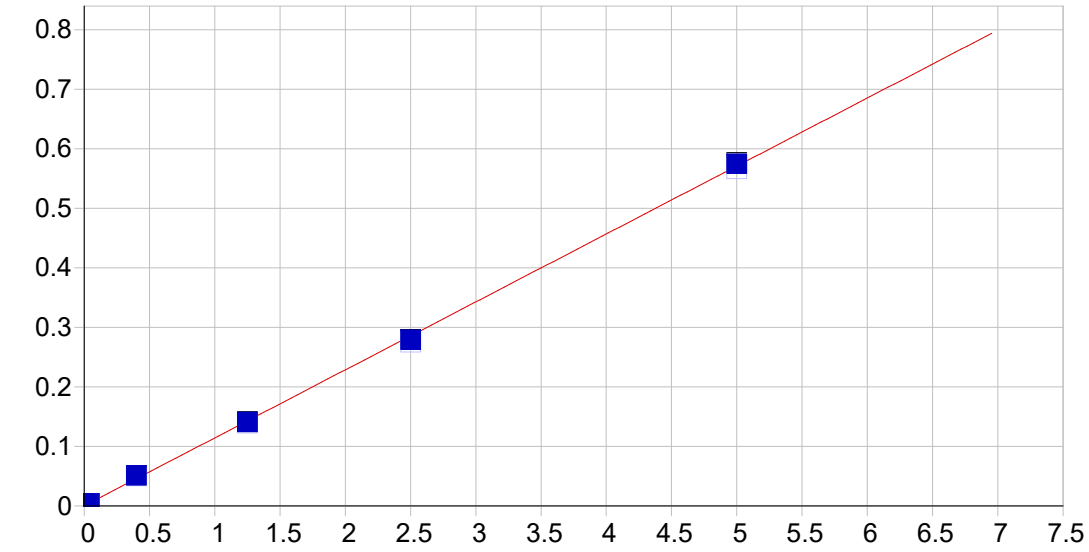
Na 589.592 { 57}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.010310	Re-Slope:	1.000000
A1 (Gain):	0.017473	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999376	Status:	OK.
Std Error of Est:	0.000327		
Predicted MDL:	0.009079		
Predicted MQL:	0.030263		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00020	-.000	.000	.01031	.000	1
S2	4.0000	4.5122	.512	12.8	.08915	.000	1
S3	12.500	12.336	-.164	-1.31	.22585	.001	1
S4	25.000	25.781	.781	3.13	.46080	.004	1
S5	50.000	48.915	-1.08	-2.17	.86502	.004	1
S1	2.0000	1.9555	-.044	-2.22	.04448	.000	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



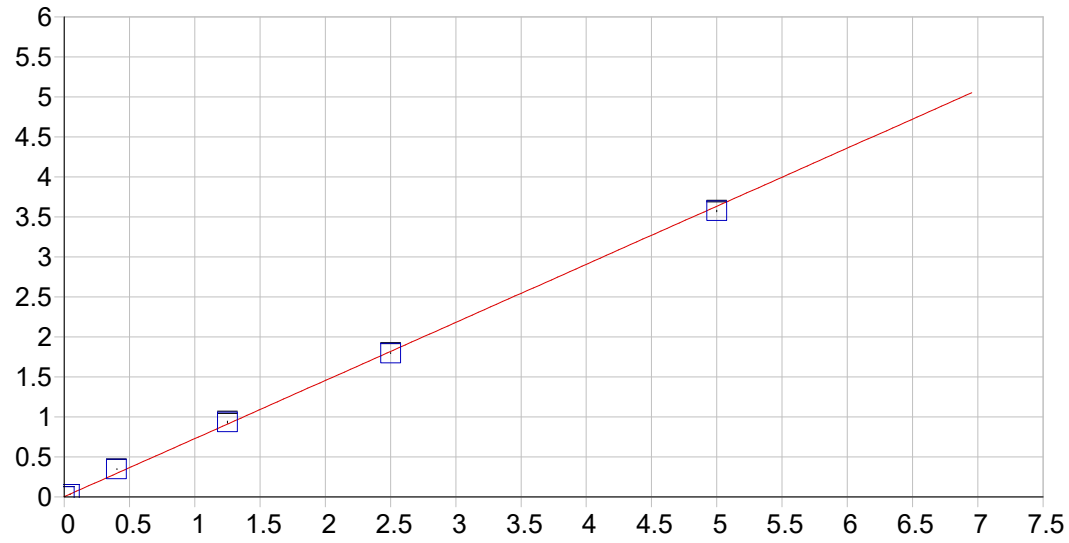
V 292.402 {115}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000119	Re-Slope:	1.000000
A1 (Gain):	0.114220	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999620	Status:	OK.
Std Error of Est:	0.000073		
Predicted MDL:	0.001610		
Predicted MQL:	0.005365		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00012	.000	1
S1	.04000	.03776	-.002	-5.60	.00426	.000	1
S3	1.2500	1.2341	-.016	-1.27	.13899	.000	1
S4	2.5000	2.4421	-.058	-2.32	.27489	.001	1
S5	5.0000	5.0317	.032	.634	.56651	.002	1
S2	.40000	.44434	.044	11.1	.05021	.000	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



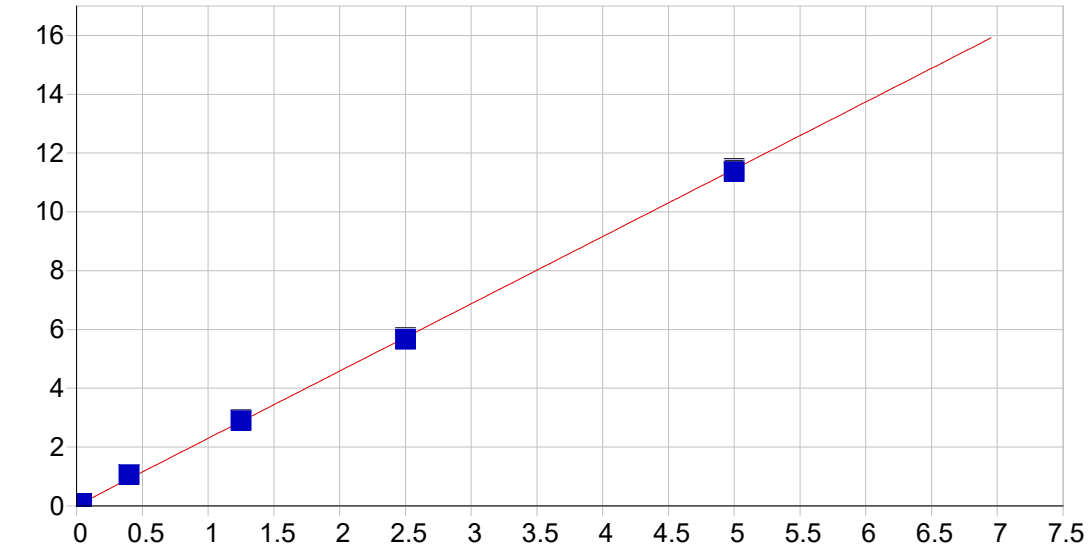
Zn 206.200 {464}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002532	Re-Slope:	1.000000
A1 (Gain):	0.726208	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999095	Status:	OK.
Std Error of Est:	0.000726		
Predicted MDL:	0.000209		
Predicted MQL:	0.000697		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00253	.000	1
S1	.04000	.03988	-.000	-.296	.03149	.000	1
S3	1.2500	1.2842	.034	2.74	.93512	.014	1
S4	2.5000	2.4716	-.028	-1.13	1.7975	.006	1
S5	5.0000	4.9192	-.081	-1.62	3.5749	.011	1
S2	.40000	.47508	.075	18.8	.34754	.001	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



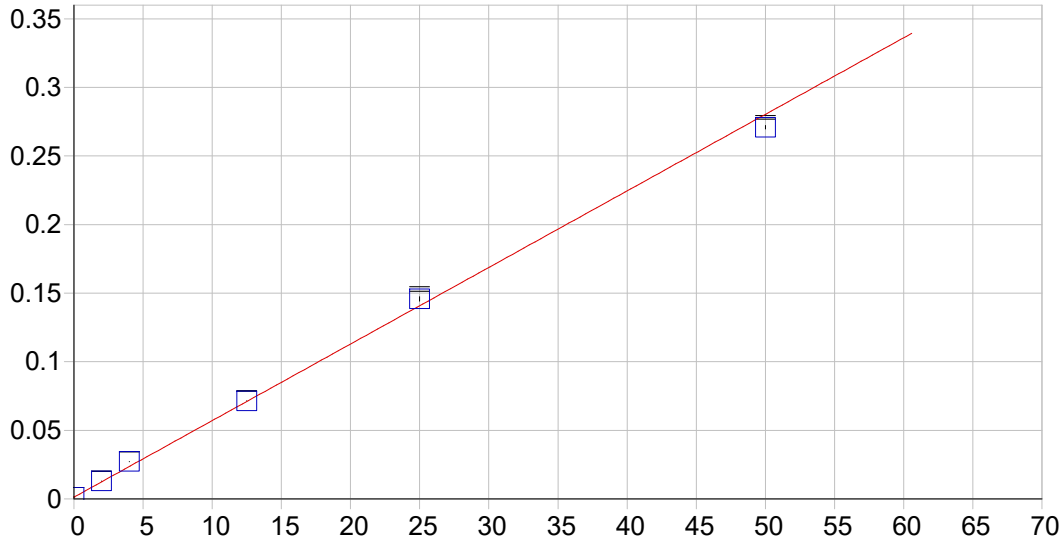
Zn 213.856 {158}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.009048	Re-Slope:	1.000000
A1 (Gain):	2.288293	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999482	Status:	OK.
Std Error of Est:	0.001742		
Predicted MDL:	0.000303		
Predicted MQL:	0.001011		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00904	.000	1
S1	.04000	.03861	-.001	-3.48	.09803	.001	1
S3	1.2500	1.2627	.013	1.01	2.9183	.005	1
S4	2.5000	2.4688	-.031	-1.25	5.6981	.025	1
S5	5.0000	4.9607	-.039	-.787	11.440	.031	1
S2	.40000	.45930	.059	14.8	1.0664	.005	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



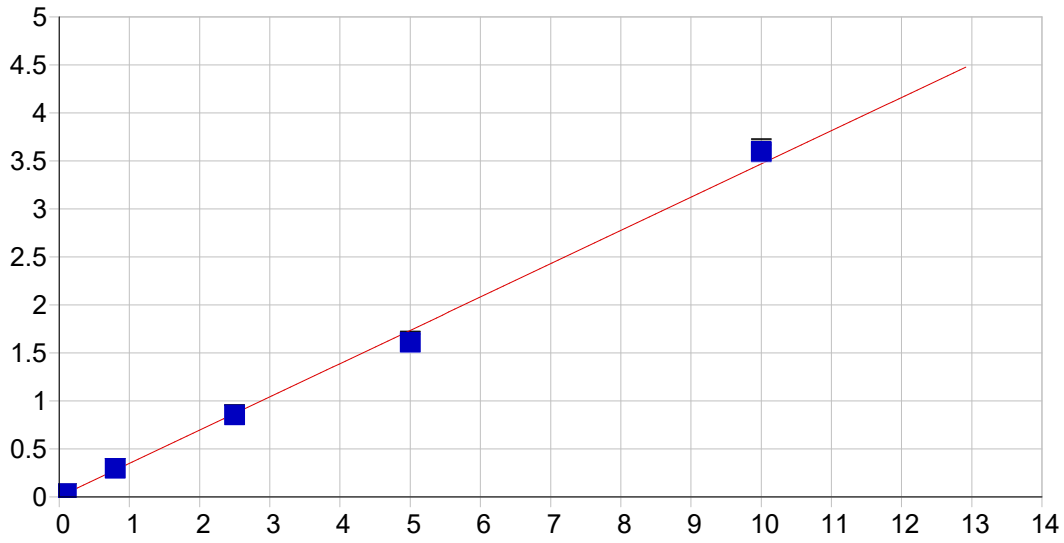
K 766.490 { 44}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001284	Re-Slope:	1.000000
A1 (Gain):	0.005582	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998951	Status:	OK.
Std Error of Est:	0.000135		
Predicted MDL:	0.029798		
Predicted MQL:	0.099327		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00043	-.000	.000	.00128	.000	1
S2	4.0000	4.6400	.640	16.0	.02718	.000	1
S3	12.500	12.574	.074	.596	.07147	.000	1
S4	25.000	25.888	.888	3.55	.14579	.002	1
S5	50.000	48.305	-1.70	-3.39	.27092	.001	1
S1	2.0000	2.0929	.093	4.65	.01297	.000	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



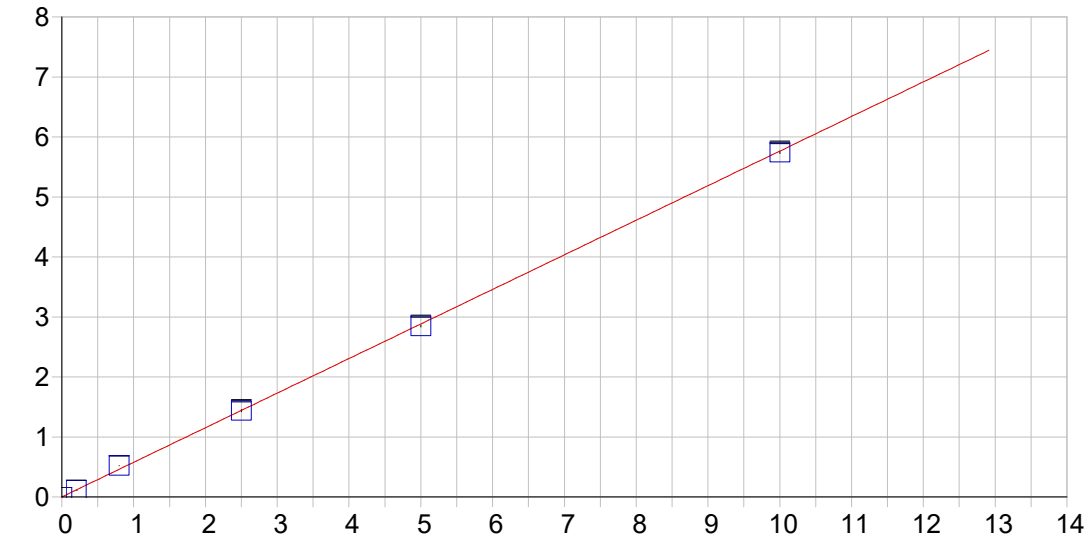
B 249.678 {135}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.003492	Re-Slope:	1.000000
A1 (Gain):	0.346429	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998761	Status:	OK.
Std Error of Est:	0.000904		
Predicted MDL:	0.000649		
Predicted MQL:	0.002163		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00350	.000	1
S1	.10000	.09020	-.010	-9.80	.03456	.000	1
S3	2.5000	2.4516	-.048	-1.94	.85023	.002	1
S4	5.0000	4.6352	-.365	-7.30	1.6041	.013	1
S5	10.000	10.376	.376	3.76	3.5879	.029	1
S2	.80000	.84688	.047	5.86	.29606	.001	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



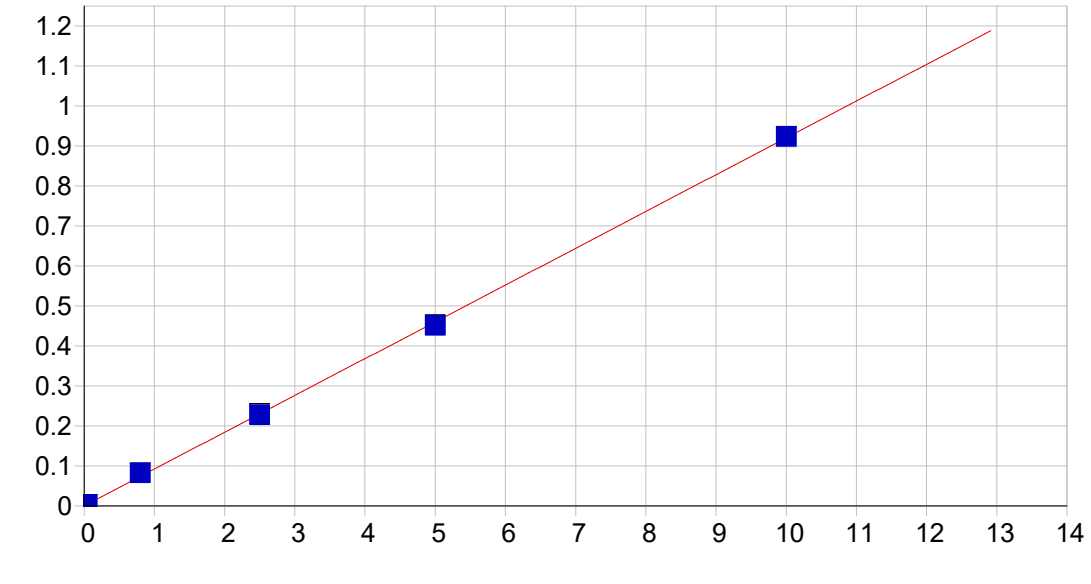
Mo 202.030 {467}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000418	Re-Slope:	1.000000
A1 (Gain):	0.576342	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999624	Status:	OK.
Std Error of Est:	0.001177		
Predicted MDL:	0.000275		
Predicted MQL:	0.000917		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00002	-.000	.000	.00041	.000	1
S1	.20000	.19684	-.003	-1.58	.11387	.000	1
S3	2.5000	2.4948	-.005	-.210	1.4383	.019	1
S4	5.0000	4.9403	-.060	-1.19	2.8477	.016	1
S5	10.000	9.9661	-.034	-.339	5.7443	.019	1
S2	.80000	.90208	.102	12.8	.52033	.001	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



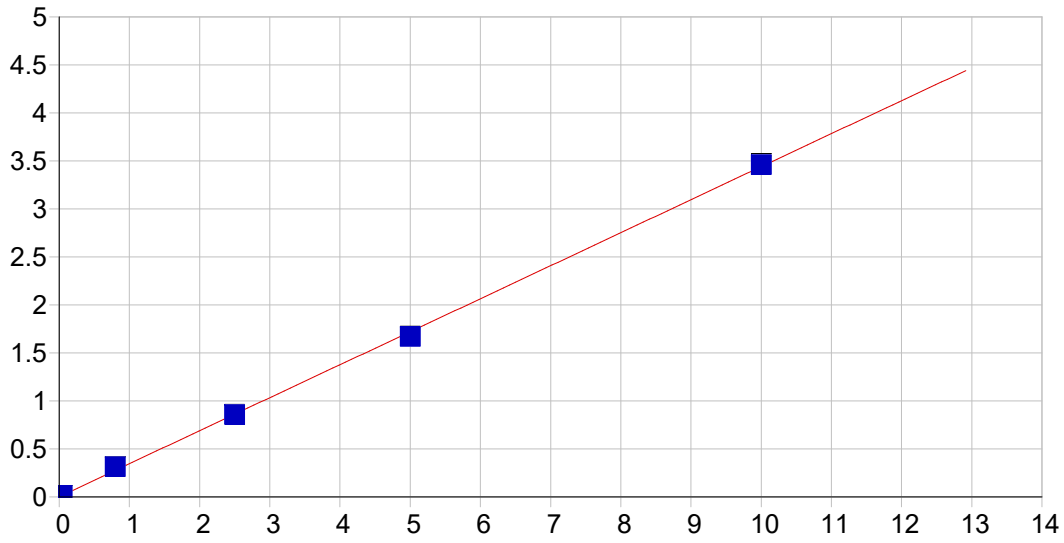
Sn 189.989 {478}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000155	Re-Slope:	1.000000
A1 (Gain):	0.092005	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999646	Status:	OK.
Std Error of Est:	0.000081		
Predicted MDL:	0.000825		
Predicted MQL:	0.002751		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00015	.000	1
S1	.04000	.03729	-.003	-6.78	.00358	.000	1
S3	2.5000	2.4746	-.025	-1.02	.22759	.003	1
S4	5.0000	4.9034	-.097	-1.93	.45082	.002	1
S5	10.000	10.033	.033	.329	.92229	.001	1
S2	.80000	.89184	.092	11.5	.08213	.000	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



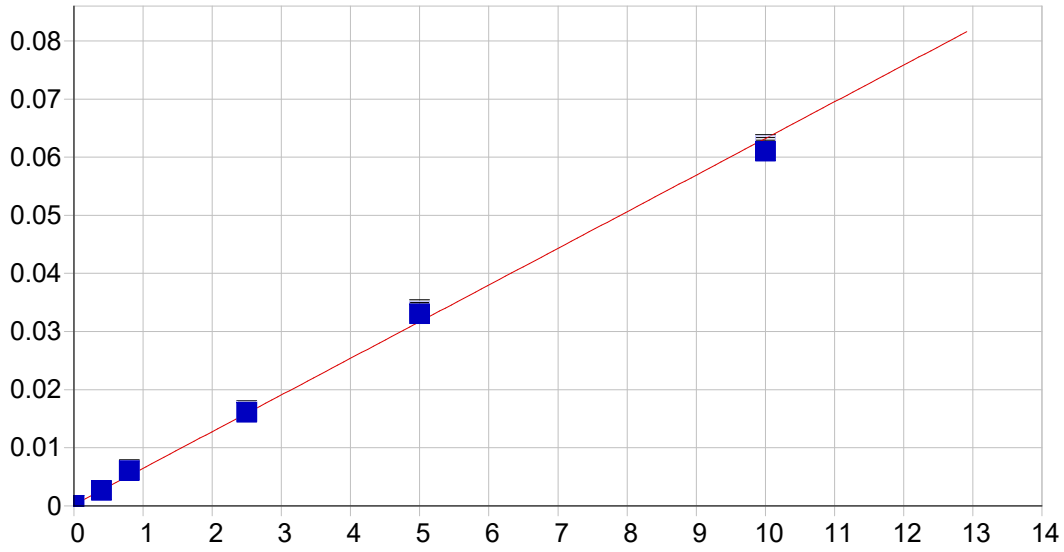
Ti 336.121 {100}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001960	Re-Slope:	1.000000
A1 (Gain):	0.343757	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999506	Status:	OK.
Std Error of Est:	0.000358		
Predicted MDL:	0.000737		
Predicted MQL:	0.002455		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00196	.000	1
S1	.04000	.03932	-.001	-1.69	.01547	.000	1
S3	2.5000	2.4841	-.016	-.636	.85557	.004	1
S4	5.0000	4.8531	-.147	-2.94	1.6696	.004	1
S5	10.000	10.060	.060	.603	3.4590	.012	1
S2	.80000	.90320	.103	12.9	.31234	.000	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



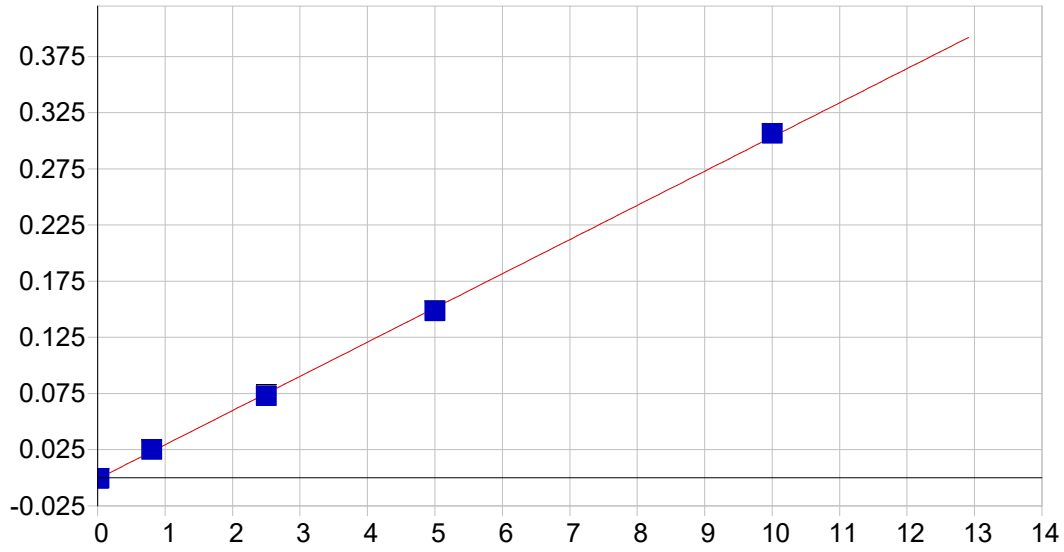
Si 288.158 {117}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000174	Re-Slope:	1.000000
A1 (Gain):	0.006305	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998860	Status:	OK.
Std Error of Est:	0.000032		
Predicted MDL:	0.006021		
Predicted MQL:	0.020071		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00006	-.000	.000	.00017	.000	1
S1	.40000	.38827	-.012	-2.93	.00263	.000	1
S3	2.5000	2.5237	.024	.950	.01632	.000	1
S4	5.0000	5.2094	.209	4.19	.03349	.000	1
S5	10.000	9.6457	-.354	-3.54	.06194	.000	1
S2	.80000	.93281	.133	16.6	.00613	.000	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



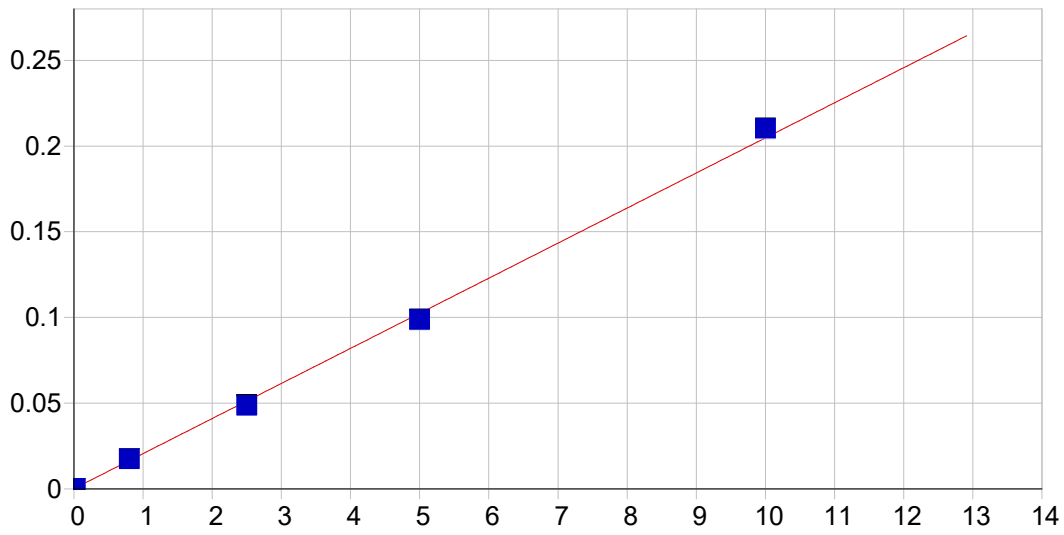
P 177.495 {490}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000995	Re-Slope:	1.000000
A1 (Gain):	0.030444	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999753	Status:	OK.
Std Error of Est:	0.000016		
Predicted MDL:	0.002719		
Predicted MQL:	0.009064		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00099	.000	1
S1	.02000	.01639	-.004	-18.1	-.00050	.000	1
S3	2.5000	2.4316	-.068	-2.74	.07302	.001	1
S4	5.0000	4.9111	-.089	-1.78	.14849	.000	1
S5	10.000	10.106	.106	1.06	.30661	.000	1
S2	.80000	.85527	.055	6.91	.02504	.000	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



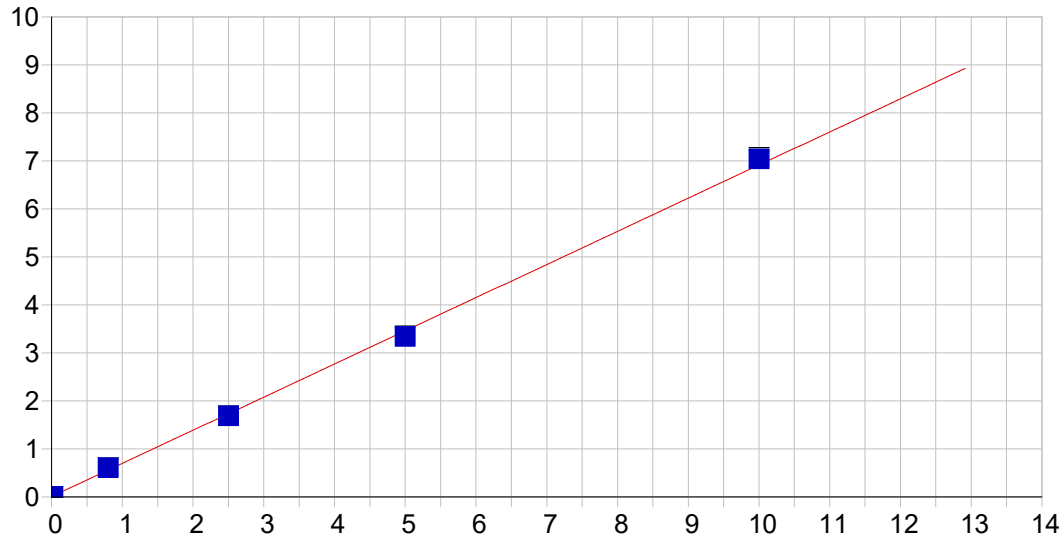
S 182.034 {485}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000159	Re-Slope:	1.000000
A1 (Gain):	0.020461	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999331	Status:	OK.
Std Error of Est:	0.000017		
Predicted MDL:	0.003508		
Predicted MQL:	0.011693		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00016	.000	1
S1	.02000	.01559	-.004	-22.0	.00046	.000	1
S3	2.5000	2.3725	-.127	-5.10	.04857	.001	1
S4	5.0000	4.8138	-.186	-3.72	.09839	.000	1
S5	10.000	10.272	.272	2.72	.20981	.000	1
S2	.80000	.84541	.045	5.68	.01741	.000	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



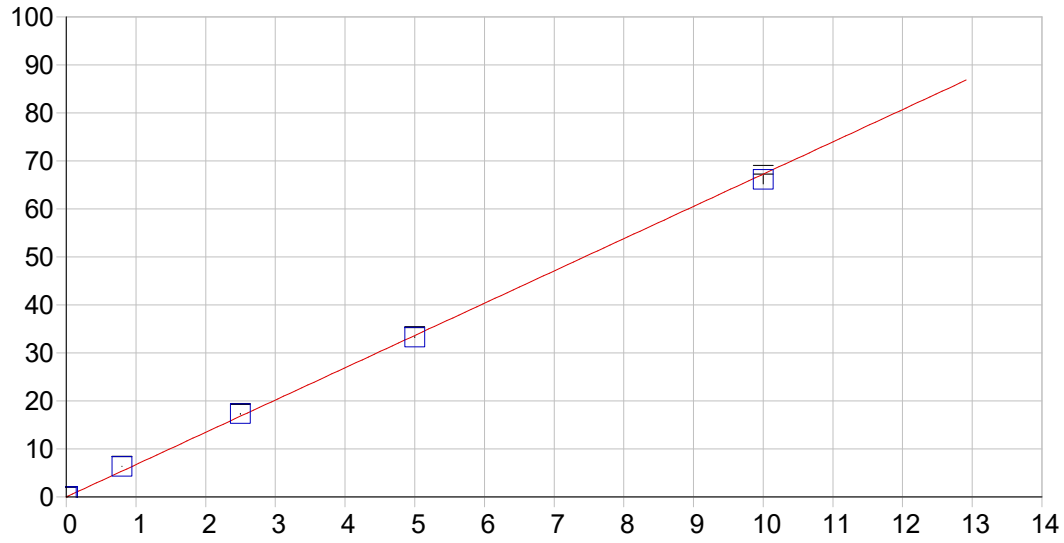
Li 670.784 { 50}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.006780	Re-Slope:	1.000000
A1 (Gain):	0.690720	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999491	Status:	OK.
Std Error of Est:	0.000517		
Predicted MDL:	0.001116		
Predicted MQL:	0.003721		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00678	.000	1
S5	10.000	10.178	.178	1.78	7.0402	.031	1
S4	5.0000	4.8237	-.176	-3.53	3.3403	.011	1
S3	2.5000	2.4296	-.070	-2.81	1.6858	.008	1
S1	.02000	.01624	-.004	-18.8	.01822	.000	1
S2	.80000	.87280	.073	9.10	.60992	.003	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



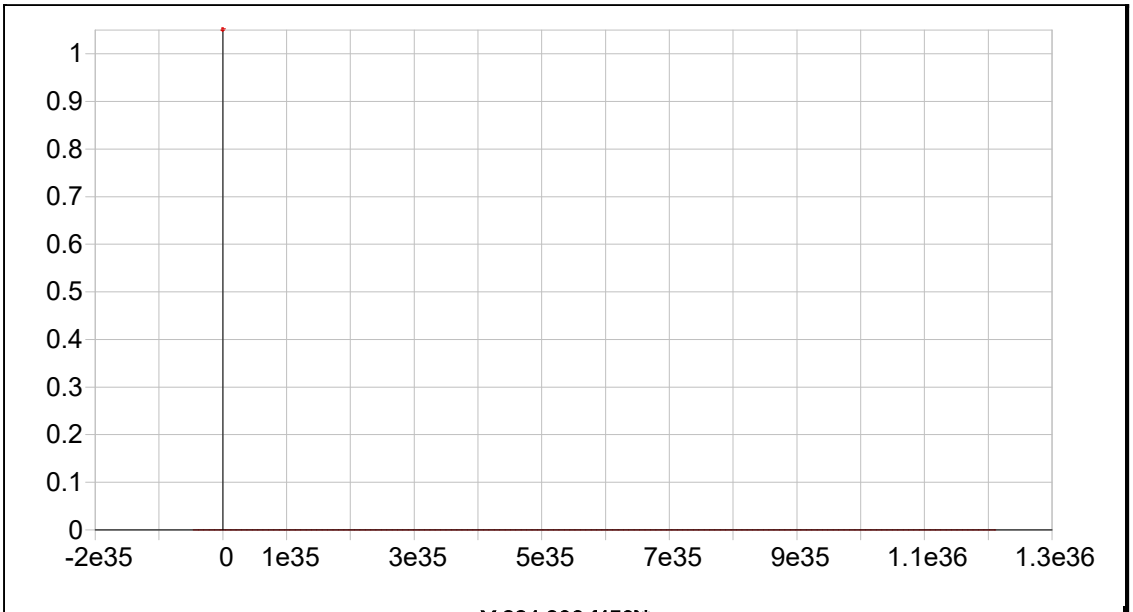
Sr 407.771 { 83}

Date of Fit:	4/10/2025 9:56:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002523	Re-Slope:	1.000000
A1 (Gain):	6.724150	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999142	Status:	OK.
Std Error of Est:	0.006531		
Predicted MDL:	0.000074		
Predicted MQL:	0.000248		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00250	.000	1
S1	.02000	.02000	.000	.024	.13704	.001	1
S3	2.5000	2.5743	.074	2.97	17.312	.112	1
S4	5.0000	4.9488	-.051	-1.02	33.279	.113	1
S5	10.000	9.8328	-.167	-1.67	66.120	.890	1
S2	.80000	.94410	.144	18.0	6.3508	.016	1

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

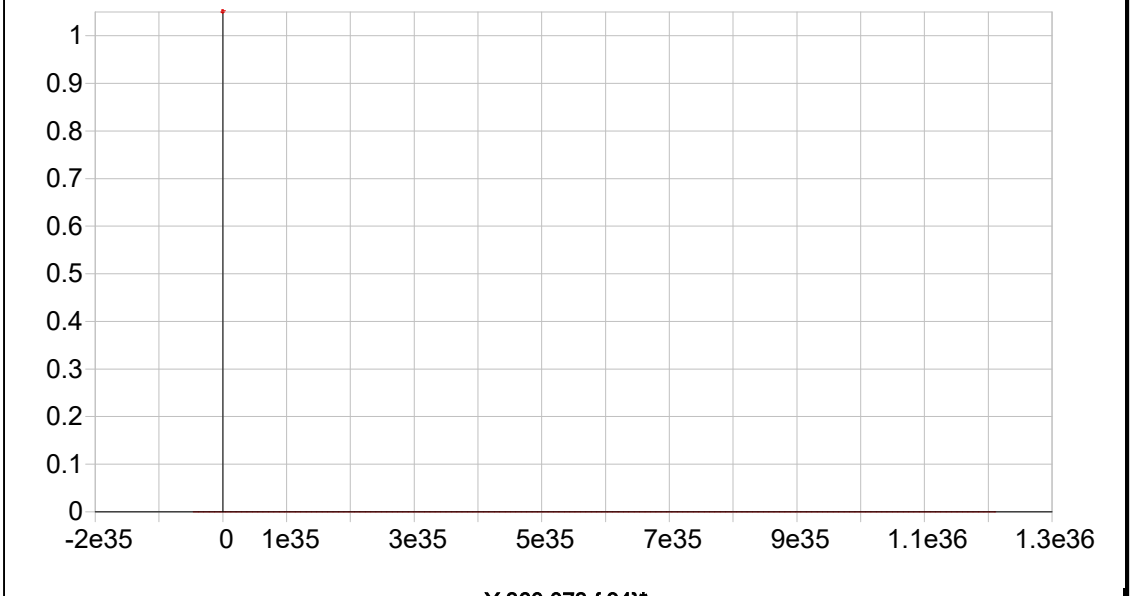


Y 224.306 {450}*

Date of Fit:	4/9/2025 13:12:50	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}*

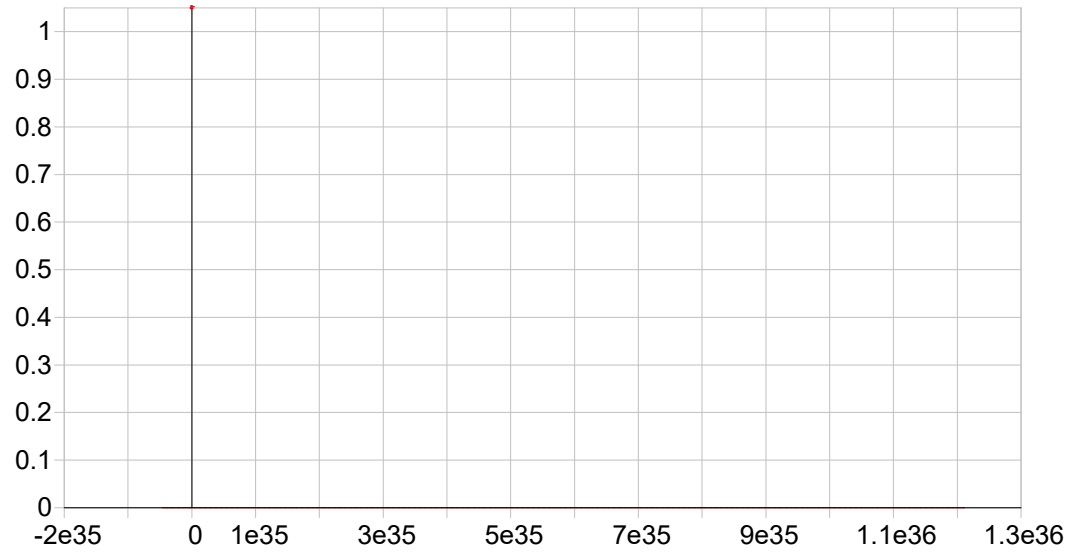
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

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

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

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



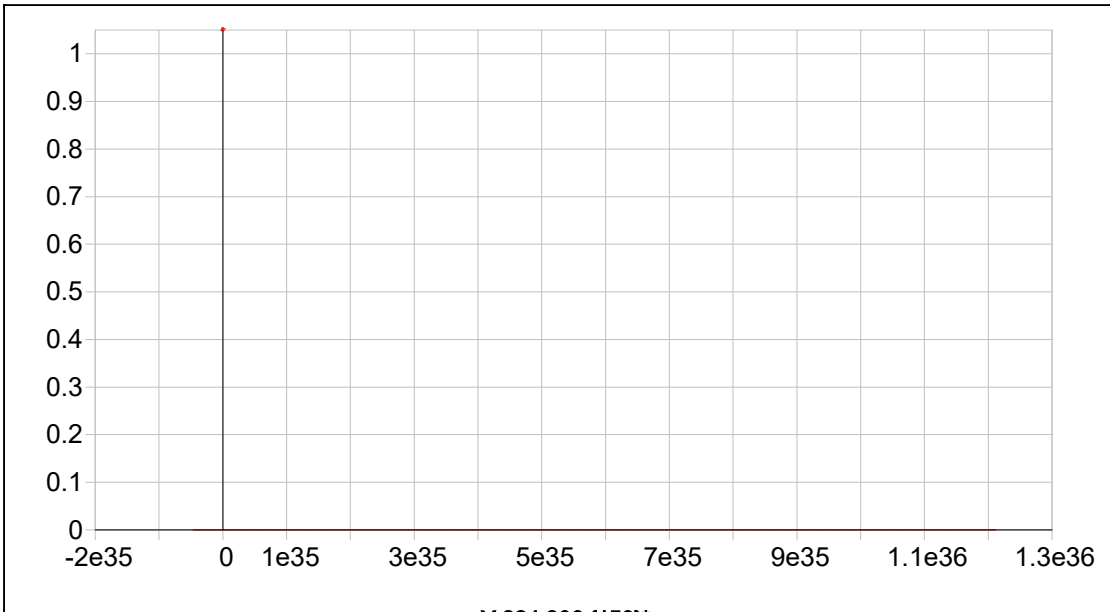
Y 371.030 { 91}*

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

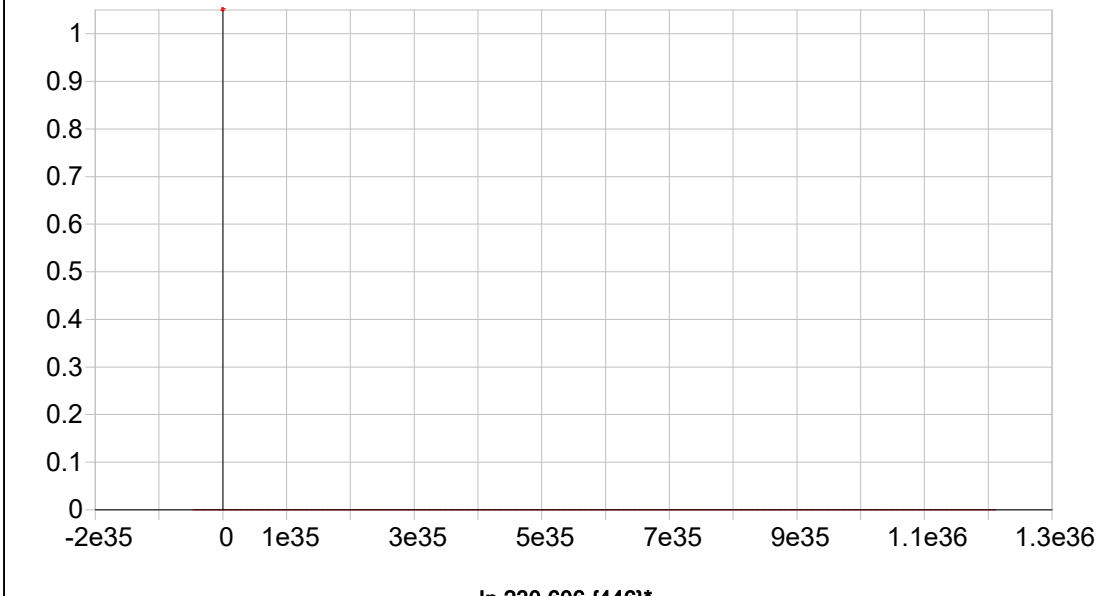
Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373



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:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

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:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: S0 Acquired: 4/10/2025 9:30:36 Type: Cal
Method: NON EPA-6010-200.7(v2904) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00008	.00001	-.00001	.00034	.00028	.00059	.03095	-.00025
Stddev	.00004	.00005	.00009	.00005	.00007	.00007	.00128	.00010
%RSD	43.657	596.22	1278.3	15.433	23.545	11.280	4.1268	41.086
#1	-.00010	-.00002	-.00001	.00028	.00036	.00064	.02973	-.00019
#2	-.00004	-.00002	.00009	.00036	.00024	.00061	.03083	-.00037
#3	-.00010	.00007	-.00010	.00038	.00025	.00051	.03228	-.00020

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	.00020	.00090	.00012	.00016	-.00049	.00006	.00223	-.00008
Stddev	.00014	.00006	.00002	.00020	.00025	.00001	.00015	.00013
%RSD	68.807	7.1574	17.321	130.17	51.990	14.656	6.7921	154.98
#1	.00017	.00097	.00009	.00034	-.00065	.00005	.00206	-.00002
#2	.00008	.00084	.00012	.00019	-.00020	.00006	.00234	.00000
#3	.00036	.00091	.00013	-.00006	-.00063	.00006	.00230	-.00023

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00003	-.00121	.01031	.00012	.00904	.00128	.00350	.00041
Stddev	.00025	.00002	.00012	.00006	.00048	.00010	.00010	.00006
%RSD	737.24	1.7633	1.1785	54.198	5.2713	7.9551	2.9083	13.945
#1	.00011	-.00120	.01020	.00005	.00879	.00135	.00344	.00035
#2	.00011	-.00123	.01028	.00015	.00874	.00117	.00361	.00047
#3	-.00032	-.00119	.01044	.00017	.00959	.00133	.00343	.00040

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	.00015	.00196	.00017	-.00099	.00016	.00678	.00250
Stddev	.00002	.00006	.00000	.00008	.00007	.00046	.00043
%RSD	15.893	3.0035	2.1007	7.7949	41.798	6.8227	17.322
#1	.00014	.00189	.00018	-.00108	.00009	.00655	.00200
#2	.00015	.00198	.00018	-.00097	.00022	.00731	.00269
#3	.00018	.00201	.00017	-.00093	.00016	.00648	.00280

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: S0 Acquired: 4/10/2025 9:30:36 Type: Cal
Method: NON EPA-6010-200.7(v2904) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3607.1	85561.	14797.	2562.3	5708.3
Stddev	5.7	276.	88.	11.9	13.3
%RSD	.15713	.32301	.59442	.46430	.23297
#1	3605.2	85252.	14897.	2551.2	5706.8
#2	3613.5	85783.	14761.	2574.9	5722.3
#3	3602.6	85648.	14733.	2560.9	5695.8

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: S1 Acquired: 4/10/2025 9:35:03 Type: Cal
Method: NON EPA-6010-200.7(v2904) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00084	.00199	.00187	.00121	.00622	.01045	.22067	.02005
Stddev	.00008	.00009	.00015	.00005	.00012	.00053	.00206	.00019
%RSD	9.7510	4.3008	7.8994	4.4766	1.9436	5.0751	.93372	.94498
#1	.00084	.00195	.00180	.00124	.00623	.01101	.21837	.01983
#2	.00076	.00208	.00204	.00125	.00634	.00995	.22234	.02016
#3	.00093	.00192	.00177	.00115	.00610	.01040	.22131	.02017

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	.01174	.07908	.00152	.02110	.01324	.00048	.00953	.02467
Stddev	.00011	.00009	.00005	.00035	.00011	.00002	.00012	.00033
%RSD	.90715	.11128	3.0186	1.6521	.80489	4.5522	1.2247	1.3180
#1	.01163	.07903	.00156	.02082	.01335	.00047	.00948	.02450
#2	.01184	.07918	.00147	.02149	.01314	.00046	.00945	.02446
#3	.01175	.07902	.00153	.02098	.01321	.00050	.00967	.02504

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	.02138	.00123	.04448	.00426	.09803	.01297	.03456	.11387
Stddev	.00021	.00006	.00034	.00010	.00091	.00006	.00019	.00021
%RSD	.99578	5.2281	.77407	2.3512	.93206	.48558	.55395	.18013
#1	.02161	.00116	.04420	.00420	.09709	.01302	.03439	.11404
#2	.02120	.00128	.04437	.00421	.09810	.01298	.03451	.11364
#3	.02132	.00126	.04487	.00438	.09891	.01290	.03477	.11392

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	.00358	.01547	.00263	-.00050	.00046	.01822	.13704
Stddev	.00010	.00014	.00001	.00010	.00006	.00026	.00055
%RSD	2.9126	.88999	.43306	20.609	13.105	1.4539	.39871
#1	.00346	.01551	.00264	-.00059	.00043	.01819	.13656
#2	.00363	.01558	.00262	-.00050	.00053	.01797	.13692
#3	.00365	.01531	.00262	-.00039	.00043	.01850	.13763

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: S1 Acquired: 4/10/2025 9:35:03 Type: Cal
Method: NON EPA-6010-200.7(v2904) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3555.9	84282.	16067.	2504.5	5581.0
Stddev	4.3	265.	34.	6.5	10.3
%RSD	.12168	.31477	.21001	.25822	.18437
#1	3551.5	84491.	16078.	2505.1	5571.5
#2	3560.2	84371.	16094.	2510.7	5579.6
#3	3556.1	83983.	16029.	2497.8	5591.9

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: S2 Acquired: 4/10/2025 9:39:25 Type: Cal
Method: NON EPA-6010-200.7(v2904) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.03985	.04726	.15746	.04448	.10554	.17192	3.5608	.16096
Stddev	.00019	.00014	.00076	.00010	.00001	.00082	.0108	.00030
%RSD	.48816	.29438	.48037	.22640	.00513	.47714	.30287	.18691
#1	.03976	.04740	.15762	.04452	.10554	.17176	3.5497	.16075
#2	.03971	.04725	.15663	.04437	.10554	.17120	3.5613	.16131
#3	.04007	.04712	.15812	.04456	.10555	.17281	3.5713	.16083

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	.90412	.18137	.02782	.32434	.14487	.00421	.19935	.05333
Stddev	.00274	.00092	.00010	.00068	.00026	.00005	.00029	.00020
%RSD	.30353	.50859	.35682	.20860	.18198	1.0867	.14620	.38351
#1	.90404	.18199	.02793	.32405	.14515	.00424	.19950	.05355
#2	.90141	.18181	.02779	.32385	.14463	.00415	.19901	.05329
#3	.90690	.18031	.02773	.32511	.14484	.00423	.19953	.05315

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	.25165	.05508	.08915	.05021	1.0664	.02718	.29606	.52033
Stddev	.00058	.00007	.00042	.00033	.0046	.00019	.00131	.00146
%RSD	.23224	.12633	.47304	.66367	.43331	.70813	.44246	.28049
#1	.25159	.05503	.08877	.04984	1.0611	.02713	.29618	.51998
#2	.25110	.05516	.08908	.05027	1.0690	.02703	.29730	.51907
#3	.25227	.05505	.08961	.05050	1.0692	.02740	.29469	.52193

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	.08213	.31234	.00613	.02504	.01741	.60992	6.3508
Stddev	.00012	.00030	.00008	.00015	.00009	.00295	.0159
%RSD	.15205	.09632	1.2842	.59365	.52151	.48439	.25093
#1	.08200	.31202	.00617	.02487	.01738	.60761	6.3343
#2	.08224	.31239	.00604	.02509	.01735	.60889	6.3521
#3	.08217	.31262	.00619	.02516	.01752	.61325	6.3661

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: S2 Acquired: 4/10/2025 9:39:25 Type: Cal
Method: NON EPA-6010-200.7(v2904) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3515.7	83404.	15468.	2487.6	5447.3
Stddev	2.0	39.	44.	9.5	4.1
%RSD	.05758	.04654	.28398	.38336	.07515
#1	3517.6	83407.	15457.	2498.6	5448.1
#2	3515.8	83441.	15431.	2481.3	5451.0
#3	3513.6	83363.	15517.	2483.0	5442.9

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: S3 Acquired: 4/10/2025 9:43:32 Type: Cal
Method: NON EPA-6010-200.7(v2904) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.11184	.13178	.43634	.12358	.29470	.47824	9.6327	.46431
Stddev	.00168	.00179	.00652	.00151	.00370	.00124	.0636	.00108
%RSD	1.5005	1.3584	1.4936	1.2251	1.2554	.25969	.66079	.23358
#1	.11262	.13226	.44116	.12440	.29714	.47709	9.6720	.46534
#2	.11299	.13328	.43892	.12451	.29653	.47956	9.6669	.46443
#3	.10992	.12980	.42892	.12184	.29045	.47808	9.5593	.46318

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.5009	.49721	.07779	.89335	.39584	.01054	.53692	.14933
Stddev	.0396	.00091	.00019	.01471	.00564	.00002	.00201	.00060
%RSD	1.5832	.18226	.24889	1.6469	1.4254	.18573	.37420	.40125
#1	2.5282	.49797	.07777	.90352	.39946	.01052	.53907	.14884
#2	2.5191	.49745	.07761	.90005	.39872	.01056	.53662	.15000
#3	2.4555	.49621	.07799	.87648	.38934	.01054	.53508	.14915

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	.69418	.15371	.22585	.13899	2.9183	.07147	.85023	1.4383
Stddev	.01065	.00031	.00055	.00033	.0053	.00008	.00239	.0187
%RSD	1.5338	.20176	.24530	.23486	.18187	.11083	.28110	1.3013
#1	.70093	.15386	.22549	.13937	2.9185	.07155	.85092	1.4488
#2	.69971	.15336	.22558	.13883	2.9129	.07140	.85220	1.4493
#3	.68191	.15392	.22649	.13878	2.9235	.07147	.84757	1.4166

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	.22759	.85557	.01632	.07302	.04857	1.6858	17.312
Stddev	.00320	.00365	.00007	.00111	.00065	.0083	.112
%RSD	1.4079	.42651	.40681	1.5250	1.3398	.49280	.64555
#1	.22967	.85841	.01635	.07373	.04906	1.6912	17.440
#2	.22920	.85685	.01625	.07360	.04882	1.6901	17.235
#3	.22390	.85146	.01637	.07174	.04783	1.6763	17.262

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: S3 Acquired: 4/10/2025 9:43:32 Type: Cal
Method: NON EPA-6010-200.7(v2904) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3452.4	81357.	14543.	2374.2	5288.7
Stddev	37.4	141.	58.	4.9	70.6
%RSD	1.0834	.17312	.39950	.20516	1.3345
#1	3430.8	81454.	14530.	2376.6	5243.3
#2	3430.8	81421.	14492.	2377.4	5252.8
#3	3495.6	81195.	14606.	2368.6	5370.0

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: S4 Acquired: 4/10/2025 9:47:39 Type: Cal
Method: NON EPA-6010-200.7(v2904) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.22570	.25877	.85805	.24845	.59713	.95348	18.521	.86906
Stddev	.00140	.00410	.00329	.00251	.00507	.00064	.176	.00570
%RSD	.62065	1.5835	.38320	1.0106	.84899	.06733	.95140	.65643
#1	.22470	.25423	.85506	.24700	.59279	.95371	18.404	.86316
#2	.22511	.25990	.85751	.24699	.59589	.95276	18.434	.86946
#3	.22731	.26219	.86157	.25135	.60270	.95399	18.723	.87455

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4.9555	.96406	.15191	1.7631	.77850	.02070	1.0208	.29351
Stddev	.0127	.00139	.00056	.0055	.00402	.00024	.0012	.00144
%RSD	.25595	.14367	.37038	.31086	.51701	1.1667	.11462	.49198
#1	4.9450	.96324	.15229	1.7587	.77607	.02092	1.0203	.29305
#2	4.9518	.96329	.15216	1.7615	.77628	.02074	1.0221	.29236
#3	4.9696	.96566	.15126	1.7693	.78314	.02044	1.0199	.29513

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.3731	.30248	.46080	.27489	5.6981	.14579	1.6041	2.8477
Stddev	.0052	.00026	.00436	.00071	.0248	.00158	.0128	.0165
%RSD	.37508	.08580	.94625	.25764	.43525	1.0816	.79921	.57866
#1	1.3693	.30269	.46483	.27492	5.7156	.14703	1.5937	2.8350
#2	1.3711	.30219	.46140	.27558	5.6697	.14633	1.6003	2.8417
#3	1.3790	.30256	.45617	.27416	5.7090	.14401	1.6184	2.8663

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	.45082	1.6696	.03349	.14849	.09839	3.3403	33.279
Stddev	.00157	.0037	.00024	.00029	.00046	.0114	.113
%RSD	.34891	.22143	.71982	.19288	.46439	.33972	.33814
#1	.44929	1.6718	.03371	.14881	.09793	3.3445	33.402
#2	.45074	1.6718	.03353	.14825	.09839	3.3490	33.180
#3	.45244	1.6654	.03323	.14842	.09884	3.3275	33.256

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: S4 Acquired: 4/10/2025 9:47:39 Type: Cal
Method: NON EPA-6010-200.7(v2904) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3306.9	78896.	14744.	2234.4	5028.2
Stddev	13.2	292.	89.	18.1	14.0
%RSD	.39822	.37011	.60189	.80900	.27818
#1	3312.9	78560.	14812.	2216.8	5037.8
#2	3315.9	79088.	14777.	2252.9	5034.7
#3	3291.8	79040.	14644.	2233.5	5012.2

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: S5 Acquired: 4/10/2025 9:51:52 Type: Cal
Method: NON EPA-6010-200.7(v2904) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.46714	.52533	1.7473	.51352	1.2381	2.0163	37.609	1.9482
Stddev	.00232	.00337	.0017	.00185	.0043	.0069	.559	.0160
%RSD	.49718	.64063	.09441	.36079	.34447	.34146	1.4874	.82261
#1	.46491	.52322	1.7485	.51174	1.2334	2.0143	37.961	1.9419
#2	.46697	.52357	1.7455	.51340	1.2390	2.0107	36.964	1.9362
#3	.46955	.52921	1.7481	.51544	1.2418	2.0240	37.903	1.9664

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	10.069	1.9658	.30218	3.5924	1.5632	.03784	2.0799	.61184
Stddev	.013	.0069	.00046	.0054	.0052	.00036	.0045	.00260
%RSD	.12694	.35260	.15134	.14966	.33449	.94344	.21556	.42467
#1	10.059	1.9631	.30177	3.5877	1.5582	.03798	2.0756	.61061
#2	10.066	1.9606	.30209	3.5911	1.5627	.03810	2.0794	.61007
#3	10.084	1.9736	.30267	3.5983	1.5686	.03743	2.0846	.61482

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	2.7949	.61982	.86502	.56651	11.440	.27092	3.5879	5.7443
Stddev	.0019	.00023	.00431	.00235	.031	.00129	.0292	.0192
%RSD	.06653	.03694	.49817	.41521	.27096	.47460	.81367	.33445
#1	2.7929	.61972	.86514	.56542	11.468	.27129	3.5740	5.7271
#2	2.7952	.62008	.86926	.56491	11.445	.27198	3.5682	5.7408
#3	2.7966	.61966	.86065	.56921	11.407	.26949	3.6214	5.7650

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	.92229	3.4590	.06194	.30661	.20981	7.0402	66.120
Stddev	.00114	.0117	.00024	.00008	.00016	.0314	.890
%RSD	.12376	.33709	.39499	.02653	.07428	.44666	1.3456
#1	.92119	3.4507	.06172	.30654	.20963	7.0062	66.111
#2	.92223	3.4539	.06220	.30660	.20991	7.0460	65.234
#3	.92347	3.4723	.06189	.30670	.20989	7.0682	67.014

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: S5 Acquired: 4/10/2025 9:51:52 Type: Cal
Method: NON EPA-6010-200.7(v2904) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3154.6	76472.	12711.	2110.2	4716.3
Stddev	8.7	164.	91.	14.0	6.1
%RSD	.27709	.21496	.71619	.66293	.12907
#1	3158.5	76323.	12731.	2095.0	4714.3
#2	3160.7	76445.	12790.	2112.8	4723.1
#3	3144.6	76649.	12612.	2122.6	4711.4

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: ICV01 Acquired: 4/10/2025 10:09:48 Type: Unk
Method: NON EPA-6010-200.7(v2912) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9847964	1.019649	.9512114	1.033103	1.001121	2.375501
Stddev	.0047460	.007811	.0010732	.002346	.004621	.003377
%RSD	.4819246	.7660296	.1128256	.2271288	.4615825	.1421711
#1	.9878783	1.027011	.9520886	1.033731	.996614	2.377885
#2	.9793310	1.011456	.9515309	1.030506	1.000900	2.371636
#3	.9871797	1.020480	.9500148	1.035071	1.005848	2.376981

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5338797	.4691498	.4833567	9.297973	.5051040	.4884050
Stddev	.0018043	.0041168	.0003990	.065655	.0008917	.0007329
%RSD	.3379688	.8774975	.0825426	.7061201	.1765283	.1500516
#1	.5359504	.4711668	.4835810	9.317367	.5042157	.4887981
#2	.5326445	.4718691	.4828961	9.351746	.5059989	.4875594
#3	.5330442	.4644135	.4835931	9.224805	.5050974	.4888574

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5174279	10.32463	.4684399	5.415083	.4965128	.2447265
Stddev	.0014056	.05193	.0027077	.047895	.0009300	.0001901
%RSD	.2716567	.5029553	.5780239	.8844792	.1872961	.0776879
#1	.5171348	10.36306	.4697477	5.404372	.4974297	.2446867
#2	.5161919	10.26556	.4702454	5.467427	.4955703	.2445595
#3	.5189570	10.34528	.4653265	5.373450	.4965383	.2449334

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.28948	.4599615	.9961496	10.21207	F 2.121679	2.537144
Stddev	.08953	.0014943	.0022210	.09392	.013049	.005776
%RSD	.8701484	.3248653	.2229582	.9196814	.6150274	.2276504
#1	10.25471	.4592230	.9944492	10.25095	2.128385	2.538298
#2	10.22256	.4616812	.9953371	10.10496	2.130011	2.530878
#3	10.39119	.4589803	.9986624	10.28031	2.106640	2.542255

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: ICV01 Acquired: 4/10/2025 10:09:48 Type: Unk
Method: NON EPA-6010-200.7(v2912) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.418315	2.349501	2.287021	F -.002095	F -.005767	F -.000208
Stddev	.000735	.005332	.017971	.003038	.002073	.000056
%RSD	.0304061	.2269561	.7857740	145.0239	35.93502	27.19662
#1	2.419164	2.355211	2.279374	-.001950	-.003433	-.000211
#2	2.417894	2.348643	2.274138	-.005203	-.007390	-.000150
#3	2.417888	2.344650	2.307550	.000868	-.006479	-.000262

Elem	Sr4077
Units	ppm
Avg	F .0008624
Stddev	.0000528
%RSD	6.117569
#1	.0009140
#2	.0008646
#3	.0008086

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3254.728	79353.65	15998.69	2186.308	5193.165
Stddev	8.246	222.84	160.01	7.643	4.112
%RSD	.2533626	.2808236	1.000123	.3495909	.0791746
#1	3260.597	79498.30	15964.55	2193.934	5197.011
#2	3258.287	79097.02	15858.51	2178.648	5193.651
#3	3245.300	79465.62	16173.01	2186.341	5188.831

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: LLICV01 Acquired: 4/10/2025 10:25:11 Type: Unk
Method: NON EPA-6010-200.7(v2913) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0184904	.0389366	.0099446	.0188900	.0516260	.0930976
Stddev	.0018667	.0022305	.0012299	.0013546	.0010309	.0003456
%RSD	10.09572	5.728501	12.36771	7.171141	1.996940	.3711755
#1	.0205714	.0368845	.0089252	.0173818	.0513406	.0928311
#2	.0169632	.0386149	.0113107	.0192851	.0507679	.0929737
#3	.0179366	.0413105	.0095980	.0200032	.0527696	.0934881

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0854958	.0053911	.0056180	1.876705	.0095638	.0280865
Stddev	.0016366	.0000491	.0000652	.014039	.0004715	.0002164
%RSD	1.914272	.9104253	1.160720	.7480741	4.930397	.7705543
#1	.0848134	.0053746	.0055648	1.861987	.0094683	.0280915
#2	.0843108	.0054463	.0056907	1.889949	.0091474	.0278676
#3	.0873632	.0053524	.0055984	1.878180	.0100758	.0283004

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0219428	.0898547	.0208059	1.985816	.0377380	.0104529
Stddev	.0003157	.0005536	.0000626	.007397	.0000856	.0003819
%RSD	1.438850	.6161360	.3010770	.3725131	.2267603	3.653711
#1	.0221156	.0899071	.0208070	1.981845	.0377782	.0103793
#2	.0221345	.0903802	.0208681	1.981252	.0376398	.0108662
#3	.0215784	.0892767	.0207428	1.994351	.0377961	.0101131

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.768319	.0370776	.0396118	1.811848	.0902454	.2015061
Stddev	.024139	.0007088	.0004690	.044708	.0005258	.0003166
%RSD	1.365073	1.911671	1.183963	2.467521	.5826223	.1571242
#1	1.744066	.0362871	.0400803	1.770086	.0908035	.2016965
#2	1.768548	.0372891	.0396126	1.806447	.0901734	.2016811
#3	1.792342	.0376565	.0391423	1.859010	.0897594	.2011406

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: LLICV01 Acquired: 4/10/2025 10:25:11 Type: Unk
Method: NON EPA-6010-200.7(v2913) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0369692	.0375301	.3737665	F .0152760	F .0145998	F .0129575
Stddev	.0004871	.0002293	.0065892	.0022322	.0024314	.0004412
%RSD	1.317691	.6109222	1.762916	14.61222	16.65381	3.405270
#1	.0374071	.0376695	.3722608	.0166196	.0135341	.0134604
#2	.0364445	.0372654	.3680604	.0165092	.0128832	.0126351
#3	.0370560	.0376553	.3809782	.0126994	.0173821	.0127771

Elem	Sr4077
Units	ppm
Avg	.0184151
Stddev	.0001730
%RSD	.9394631
#1	.0182181
#2	.0185425
#3	.0184846

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3341.821	80677.71	15235.45	2223.767	5441.305
Stddev	5.153	142.40	58.04	15.141	11.769
%RSD	.1542116	.1765009	.3809822	.6808686	.2162946
#1	3342.452	80606.75	15205.99	2211.242	5446.248
#2	3346.630	80584.74	15198.04	2219.465	5449.796
#3	3336.382	80841.65	15302.32	2240.593	5427.870

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: ICB01 Acquired: 4/10/2025 10:29:06 Type: Unk
Method: NON EPA-6010-200.7(v2914) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023444	-.002181	.0003285	-.002833	-.001488	.0020287	-.006584
Stddev	.0025720	.000847	.0021986	.002555	.001271	.0050944	.000261
%RSD	109.7099	38.81805	669.3556	90.17971	85.39921	251.1106	3.960678
#1	.0027242	-.001208	-.000236	-.004638	-.001613	.0007673	-.006885
#2	.0047054	-.002747	.002754	.000090	-.002692	-.002316	-.006444
#3	-.000396	-.002587	-.001533	-.003951	-.000159	.007635	-.006423

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000483	-.000128	-.021864	-.000323	-.000148	-.000645	-.008063
Stddev	.0000048	.000048	.007371	.000205	.000090	.000109	.002020
%RSD	9.865557	37.28306	33.71412	63.51083	60.87803	16.95377	25.04997
#1	.0000451	-.000146	-.016837	-.000135	-.000222	-.000769	-.010156
#2	.0000537	-.000074	-.018429	-.000292	-.000048	-.000601	-.007907
#3	.0000460	-.000165	-.030325	-.000542	-.000175	-.000564	-.006126

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003694	-.013686	-.000330	.0004633	-.326535	-.001030	-.001953
Stddev	.000244	.006571	.000082	.0001728	.005051	.001075	.000173
%RSD	6.602614	48.01200	24.85797	37.30144	1.546996	104.3680	8.883562
#1	-.003604	-.016421	-.000424	.0004346	-.331004	-.001368	-.002147
#2	-.003971	-.006189	-.000272	.0006487	-.327546	-.001895	-.001812
#3	-.003509	-.018447	-.000294	.0003067	-.321054	.000173	-.001900

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.223564	-.004040	-.000380	-.000426	.0007967	.0016612	-.002484
Stddev	.043363	.000307	.000110	.000774	.0004520	.0025322	.003047
%RSD	19.39616	7.606741	29.05025	181.7721	56.72639	152.4306	122.6601
#1	-.248909	-.003835	-.000347	-.001122	.0003605	.0000217	-.000937
#2	-.248289	-.004393	-.000503	.000407	.0007668	.0003843	-.000521
#3	-.173494	-.003891	-.000289	-.000562	.0012629	.0045777	-.005994

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: ICB01 Acquired: 4/10/2025 10:29:06 Type: Unk
Method: NON EPA-6010-200.7(v2914) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002952	-.004167	-.000314
Stddev	.003332	.000866	.000022
%RSD	112.8679	20.78030	6.945146
#1	-.006329	-.004065	-.000291
#2	.000332	-.005079	-.000334
#3	-.002859	-.003356	-.000318

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3296.002	80208.50	15838.19	2186.623	5469.003
Stddev	18.596	138.32	50.28	14.089	22.266
%RSD	.5641905	.1724551	.3174460	.6443425	.4071342
#1	3315.381	80140.87	15809.03	2178.428	5484.271
#2	3294.322	80117.01	15896.25	2178.549	5479.285
#3	3278.304	80367.63	15809.30	2202.891	5443.454

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CRI01 Acquired: 4/10/2025 10:33:26 Type: Unk
Method: NON EPA-6010-200.7(v2914) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0189466	.0382808	.0116484	.0181171	.0510466	.0979640
Stddev	.0012453	.0013718	.0015709	.0015899	.0006922	.0055266
%RSD	6.572870	3.583541	13.48594	8.775510	1.355974	5.641432
#1	.0192125	.0383837	.0134326	.0196765	.0504673	.1007109
#2	.0200375	.0368604	.0110392	.0181763	.0518131	.0916022
#3	.0175898	.0395982	.0104733	.0164984	.0508593	.1015789

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0853933	.0054804	.0055074	1.875683	.0094248	.0281712
Stddev	.0007861	.0000653	.0000546	.002097	.0001431	.0001478
%RSD	.9206149	1.191393	.9913209	.1118186	1.518797	.5247736
#1	.0845158	.0054816	.0054453	1.873370	.0094043	.0280005
#2	.0856311	.0055451	.0055478	1.877461	.0092930	.0282570
#3	.0860331	.0054146	.0055291	1.876217	.0095771	.0282561

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0218742	.1020287	.0150455	1.980487	.0380316	.0104005
Stddev	.0002102	.0033826	.0000834	.017401	.0002306	.0003714
%RSD	.9610499	3.315365	.5542660	.8786386	.6063956	3.570456
#1	.0220995	.1052382	.0150261	1.962763	.0380432	.0108115
#2	.0216833	.0984962	.0151369	1.997547	.0377953	.0100891
#3	.0218397	.1023518	.0149735	1.981150	.0382562	.0103010

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.482868	.0362631	.0396212	1.962017	.0796568	.2049427
Stddev	.015113	.0014121	.0005707	.021102	.0005979	.0007756
%RSD	1.019193	3.894146	1.440428	1.075537	.7506350	.3784517
#1	1.479261	.0364412	.0399403	1.951328	.0795600	.2047144
#2	1.499459	.0347703	.0389624	1.948399	.0791132	.2043069
#3	1.469885	.0375777	.0399611	1.986325	.0802973	.2058068

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CRI01 Acquired: 4/10/2025 10:33:26 Type: Unk
Method: NON EPA-6010-200.7(v2914) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0369423	.0380093	.4123105	.0162972	F .0135227	F .0138047
Stddev	.0003063	.0002488	.0018227	.0010687	.0036051	.0012583
%RSD	.8290509	.6544525	.4420768	6.557779	26.65989	9.115079
#1	.0368005	.0381951	.4144097	.0159990	.0161046	.0144690
#2	.0367327	.0381061	.4113931	.0154093	.0094038	.0145916
#3	.0372938	.0377267	.4111287	.0174834	.0150597	.0123535

Elem	Sr4077
Units	ppm
Avg	.0184445
Stddev	.0000651
%RSD	.3527684
#1	.0185112
#2	.0183812
#3	.0184411

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3263.294	78963.48	16458.23	2128.477	5386.525
Stddev	3.359	171.12	51.72	16.968	11.417
%RSD	.1029279	.2167090	.3142392	.7971677	.2119640
#1	3266.536	78954.04	16439.12	2112.387	5399.421
#2	3263.517	79139.12	16516.79	2146.203	5382.448
#3	3259.830	78797.27	16418.79	2126.840	5377.706

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: ICSA01 Acquired: 4/10/2025 10:37:43 Type: Unk
Method: NON EPA-6010-200.7(v2914) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051604	.0097886	.0073188	-.008186	-.001857	243.1321
Stddev	.0048095	.0030885	.0042699	.002643	.000945	2.0946
%RSD	93.20013	31.55184	58.34157	32.28995	50.88828	.8615072
#1	.0081538	.0063931	.0116600	-.005459	-.001162	245.1201
#2	.0077147	.0124306	.0071722	-.010736	-.001475	243.3310
#3	-.000387	.0105420	.0031240	-.008362	-.002933	240.9451

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003920	.0011355	-.003529	226.5924	.0557962	.0015817
Stddev	.000218	.0000282	.000414	.5925	.0003210	.0001625
%RSD	5.557988	2.479728	11.72802	.2614981	.5753338	10.27173
#1	-.004120	.0011157	-.003940	227.1600	.0557783	.0015336
#2	-.003688	.0011678	-.003534	225.9777	.0554845	.0014486
#3	-.003952	.0011232	-.003112	226.6397	.0561258	.0017627

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004964	106.7488	.0007817	243.2609	.0024624	.0037469
Stddev	.000942	.3011	.0003742	1.0562	.0003191	.0003460
%RSD	18.98011	.2820594	47.87273	.4341708	12.95803	9.235376
#1	-.005891	106.4041	.0008696	244.1504	.0028118	.0035328
#2	-.004007	106.9603	.0003714	242.0936	.0021864	.0035618
#3	-.004993	106.8820	.0011041	243.5385	.0023891	.0041462

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.202208	.0022820	.0027389	-.132272	F .1588668	.0001123
Stddev	.013887	.0002332	.0008002	.008877	.0004550	.0007655
%RSD	6.867657	10.21699	29.21474	6.711504	.2863690	681.8243
#1	-.200474	.0020670	.0032287	-.123907	.1583670	.0001417
#2	-.216880	.0025298	.0018155	-.141586	.1592569	-.000668
#3	-.189269	.0022490	.0031725	-.131324	.1589764	.000863

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: ICSA01 Acquired: 4/10/2025 10:37:43 Type: Unk
Method: NON EPA-6010-200.7(v2914) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006603	-.000995	.0210512	.0031543	-.019185	.0028872
Stddev	.001610	.000503	.0062562	.0025035	.006570	.0002470
%RSD	24.38886	50.52344	29.71887	79.36629	34.24564	8.556177
#1	-.005177	-.001084	.0263995	.0003642	-.026771	.0030722
#2	-.006282	-.000454	.0141715	.0038945	-.015480	.0026067
#3	-.008350	-.001447	.0225826	.0052043	-.015304	.0029827

Elem	Sr4077
Units	ppm
Avg	F .0942149
Stddev	.0003424
%RSD	.3633902
#1	.0940448
#2	.0946090
#3	.0939908

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2936.492	69840.12	15452.96	1890.480	4370.437
Stddev	60.017	123.55	82.08	5.745	100.351
%RSD	2.043819	.1769027	.5311497	.3039011	2.296129
#1	3003.878	69733.92	15368.36	1888.281	4484.020
#2	2916.811	69975.72	15532.26	1886.160	4333.502
#3	2888.787	69810.73	15458.26	1897.000	4293.787

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: ICSAB01 Acquired: 4/10/2025 10:42:08 Type: Unk
Method: NON EPA-6010-200.7(v2914) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1106279	.1031214	.0572577	.0367083	.6238266	236.4193
Stddev	.0033645	.0006792	.0012085	.0042399	.0037551	.3529
%RSD	3.041248	.6586312	2.110581	11.55018	.6019419	.1492762
#1	.1125869	.1023904	.0563584	.0406746	.6196550	236.7753
#2	.1067430	.1037329	.0567833	.0322396	.6248883	236.4131
#3	.1125538	.1032410	.0586314	.0372107	.6269366	236.0695

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4585892	.5250418	.9806628	218.5021	.5526211	.4982671
Stddev	.0016646	.0024306	.0035584	.3997	.0001667	.0021862
%RSD	.3629897	.4629250	.3628613	.1829224	.0301711	.4387559
#1	.4605097	.5231564	.9797441	218.1700	.5524412	.4966958
#2	.4576968	.5241840	.9776537	218.3906	.5526517	.4973418
#3	.4575610	.5277849	.9845905	218.9457	.5527705	.5007638

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4999114	93.58896	.4542800	236.8297	.9945172	.1863518
Stddev	.0037635	.24616	.0004319	.6055	.0044254	.0002822
%RSD	.7528386	.2630263	.0950816	.2556737	.4449838	.1514097
#1	.4992693	93.82835	.4547136	236.2093	.9933999	.1866765
#2	.4965102	93.60200	.4538498	236.8604	.9907575	.1862126
#3	.5039546	93.33654	.4542767	237.4192	.9993942	.1861664

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.267477	.4598223	1.057743	-.182971	1.112347	1.114809
Stddev	.008541	.0008684	.001567	.013275	.002648	.005917
%RSD	3.193094	.1888495	.1481360	7.255406	.2380252	.5307857
#1	-.270782	.4606504	1.057447	-.188932	1.110014	1.112558
#2	-.273871	.4598979	1.056346	-.192221	1.111801	1.110348
#3	-.257778	.4589186	1.059438	-.167760	1.115225	1.121522

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: ICSAB01 Acquired: 4/10/2025 10:42:08 Type: Unk
Method: NON EPA-6010-200.7(v2914) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.086012	1.016554	1.019846	F .0015509	F -.018050	F -.001974
Stddev	.006011	.002782	.013991	.0037946	.007071	.000624
%RSD	.5534742	.2736699	1.371900	244.6678	39.17640	31.60719
#1	1.084111	1.017752	1.026354	.0054609	-.014180	-.001283
#2	1.081181	1.013374	1.029399	-.002117	-.026212	-.002144
#3	1.092743	1.018536	1.003787	.001308	-.013758	-.002496

Elem	Sr4077
Units	ppm
Avg	F .0888286
Stddev	.0004788
%RSD	.5389862
#1	.0893021
#2	.0883447
#3	.0888390

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2905.696	70768.28	13928.77	1922.314	4323.602
Stddev	13.014	157.13	51.86	3.692	15.488
%RSD	.4478938	.2220341	.3723176	.1920740	.3582168
#1	2909.187	70738.20	13976.50	1922.440	4326.614
#2	2916.608	70628.37	13936.23	1918.560	4337.363
#3	2891.291	70938.27	13873.59	1925.942	4306.830

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: ICSADLX20 Acquired: 4/10/2025 10:46:11 Type: Unk
Method: NON EPA-6010-200.7(v2914) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSADLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006107	-.000139	-.000194	-.001039	-.001510	11.88961	-.006586
Stddev	.0009340	.001283	.001780	.001189	.001324	.02664	.000788
%RSD	152.9405	922.5020	917.9732	114.4662	87.68466	.2240256	11.96525
#1	.0009901	-.000719	.001845	-.000859	-.000480	11.90992	-.006080
#2	.0012952	-.001029	-.001436	-.002307	-.003004	11.85946	-.006185
#3	-.000453	.001331	-.000990	.000050	-.001047	11.89947	-.007494

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002394	-.000110	11.71483	.0024757	-.000075	-.000170	5.259396
Stddev	.0000455	.000061	.01032	.0004737	.000205	.000424	.025790
%RSD	19.01101	55.94321	.0881194	19.13587	272.4976	249.3706	.4903627
#1	.0002258	-.000175	11.70614	.0019438	-.000219	-.000083	5.277133
#2	.0002022	-.000053	11.71213	.0028523	.000159	-.000632	5.271244
#3	.0002901	-.000102	11.72624	.0026310	-.000165	.000204	5.229811

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003386	11.99382	.0000240	.0004759	-.339124	-.000730	.0005979
Stddev	.000121	.03136	.0000473	.0002113	.004013	.000652	.0002590
%RSD	3.570624	.2614956	197.1601	44.40344	1.183492	89.32762	43.31254
#1	-.003482	11.97403	.0000742	.0005497	-.339715	-.001394	.0007569
#2	-.003426	11.97744	-.000020	.0002376	-.342809	-.000706	.0007378
#3	-.003250	12.02998	.000018	.0006404	-.334848	-.000090	.0002991

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.273749	.0028563	-.000271	-.002077	.0013248	.0024108	-.002532
Stddev	.011003	.0002491	.000116	.001498	.0009634	.0031487	.002087
%RSD	4.019519	8.720389	42.58373	72.12051	72.71993	130.6048	82.44499
#1	-.283401	.0031334	-.000274	-.002214	.0005869	.0044376	-.000506
#2	-.261767	.0026510	-.000386	-.000515	.0009727	-.001217	-.002414
#3	-.276080	.0027844	-.000155	-.003502	.0024146	.004012	-.004675

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: ICSADLX20 Acquired: 4/10/2025 10:46:11 Type: Unk
Method: NON EPA-6010-200.7(v2914) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSADLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000618	-.003709	.0044836
Stddev	.000828	.000920	.0000263
%RSD	133.9351	24.80961	.5865943
#1	-.001292	-.004274	.0044655
#2	.000306	-.002647	.0045137
#3	-.000867	-.004206	.0044715

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3283.329	78937.39	15870.86	2170.141	5274.652
Stddev	14.409	59.61	41.61	10.778	16.838
%RSD	.4388481	.0755126	.2621623	.4966669	.3192290
#1	3270.827	78936.46	15893.06	2174.120	5261.906
#2	3299.087	78878.25	15896.67	2157.939	5293.740
#3	3280.074	78997.45	15822.86	2178.364	5268.310

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: ICSABDLX20 Acquired: 4/10/2025 10:50:27 Type: Unk
Method: NON EPA-6010-200.7(v2914) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSABDLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0073627	.0054447	.0016475	.0020310	.0311532	12.39209	.0169009
Stddev	.0011275	.0010687	.0007796	.0024236	.0003421	.02343	.0009703
%RSD	15.31331	19.62737	47.31893	119.3295	1.098237	.1890485	5.741181
#1	.0084930	.0058847	.0017074	.0000760	.0314796	12.40921	.0180153
#2	.0062381	.0062231	.0023953	.0012744	.0307972	12.36539	.0162433
#3	.0073570	.0042263	.0008396	.0047426	.0311829	12.40167	.0164441

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0270645	.0495966	12.00582	.0292194	.0247923	.0266348	5.127469
Stddev	.0001796	.0000440	.04591	.0001890	.0003102	.0000617	.013065
%RSD	.6636875	.0886820	.3824292	.6466728	1.251130	.2316931	.2548114
#1	.0272702	.0495722	12.05294	.0290014	.0250789	.0267048	5.131696
#2	.0269849	.0495702	12.00330	.0293196	.0244630	.0265881	5.112813
#3	.0269384	.0496473	11.96122	.0293371	.0248349	.0266116	5.137898

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0209624	12.51188	.0506467	.0096761	-.343405	.0231508	.0527589
Stddev	.0003401	.05518	.0000839	.0002510	.004391	.0008334	.0002027
%RSD	1.622411	.4410496	.1657181	2.594337	1.278701	3.599707	.3842284
#1	.0210453	12.53454	.0505502	.0099591	-.348037	.0241072	.0529764
#2	.0212535	12.55212	.0506866	.0094804	-.342878	.0225805	.0525753
#3	.0205886	12.44897	.0507031	.0095887	-.339302	.0227647	.0527250

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.245583	.0016277	-.000370	-.001783	.0010208	-.000687	-.005399
Stddev	.036345	.0004639	.000141	.001426	.0005559	.000706	.001405
%RSD	14.79968	28.49978	38.10911	79.94503	54.46265	102.8252	26.02992
#1	-.272595	.0020898	-.000531	-.000251	.0016625	-.000411	-.005557
#2	-.204260	.0016313	-.000311	-.003070	.0007137	-.000160	-.003921
#3	-.259893	.0011621	-.000268	-.002028	.0006861	-.001489	-.006718

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: ICSABDLX20 Acquired: 4/10/2025 10:50:27 Type: Unk
Method: NON EPA-6010-200.7(v2914) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSABDLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.004524	-.004337	.0045216
Stddev	.001521	.000505	.0000269
%RSD	33.61768	11.64412	.5950598
#1	-.005855	-.004751	.0044924
#2	-.004850	-.003774	.0045454
#3	-.002866	-.004485	.0045271

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3239.664	77746.00	14828.66	2109.140	5244.752
Stddev	13.567	90.23	82.45	9.280	17.581
%RSD	.4187810	.1160623	.5560498	.4399819	.3352092
#1	3251.465	77773.37	14752.61	2098.954	5262.675
#2	3242.686	77819.39	14817.09	2111.354	5244.049
#3	3224.841	77645.26	14916.29	2117.113	5227.534

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCV01 Acquired: 4/10/2025 11:00:25 Type: Unk
Method: NON EPA-6010-200.7(v2914) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.751163	4.772034	5.241634	4.818364	4.908135	9.817712
Stddev	.007927	.023456	.007161	.013583	.013582	.023555
%RSD	.1668425	.4915220	.1366103	.2819067	.2767266	.2399266
#1	4.748025	4.793485	5.247229	4.824940	4.923565	9.828358
#2	4.745285	4.746989	5.244110	4.802744	4.897987	9.834066
#3	4.760178	4.775629	5.233564	4.827408	4.902854	9.790714

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.767630	.2463695	2.337069	24.00899	1.011728	2.447029
Stddev	.092703	.0001875	.006522	.04104	.002227	.005818
%RSD	.9490850	.0760992	.2790561	.1709473	.2201275	.2377459
#1	9.693801	.2463754	2.342082	24.00439	1.013042	2.451565
#2	9.737419	.2461792	2.339428	23.97045	1.009156	2.449053
#3	9.871669	.2465540	2.329696	24.05214	1.012985	2.440470

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.256964	5.246861	2.349064	23.96112	2.463510	1.252708
Stddev	.001567	.014872	.002774	.03291	.006191	.001401
%RSD	.1246484	.2834389	.1180706	.1373286	.2512944	.1118401
#1	1.257218	5.241970	2.349595	23.99332	2.470425	1.253655
#2	1.255286	5.235051	2.346063	23.92755	2.461620	1.251098
#3	1.258388	5.263562	2.351534	23.96250	2.458484	1.253369

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.51396	2.424411	2.539191	26.91043	F 4.423424	4.911612
Stddev	.04120	.003563	.005315	.04689	.008942	.003238
%RSD	.1829908	.1469524	.2093365	.1742431	.2021556	.0659226
#1	22.55187	2.427895	2.544868	26.94152	4.421972	4.913648
#2	22.47012	2.420774	2.534332	26.85650	4.433004	4.907879
#3	22.51988	2.424563	2.538373	26.93328	4.415297	4.913310

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCV01 Acquired: 4/10/2025 11:00:25 Type: Unk
Method: NON EPA-6010-200.7(v2914) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.742207	4.658566	F 6.246868	4.752096	4.594503	4.650618
Stddev	.012055	.012323	.023096	.011031	.009841	.015965
%RSD	.2542119	.2645232	.3697152	.2321373	.2141870	.3432834
#1	4.754541	4.671269	6.237626	4.764558	4.605011	4.666934
#2	4.741628	4.657767	6.229824	4.743583	4.585504	4.649890
#3	4.730451	4.646662	6.273153	4.748146	4.592994	4.635030

Elem	Sr4077
Units	ppm
Avg	4.745931
Stddev	.014517
%RSD	.3058777
#1	4.758639
#2	4.749043
#3	4.730110

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3172.056	75441.92	14942.34	2046.879	4909.976
Stddev	7.385	236.04	14.09	8.031	17.176
%RSD	.2328249	.3128732	.0942870	.3923375	.3498246
#1	3164.110	75383.18	14932.15	2042.548	4890.418
#2	3178.711	75701.78	14958.42	2056.145	4916.902
#3	3173.346	75240.79	14936.46	2041.943	4922.608

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCB01 Acquired: 4/10/2025 11:21:50 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000467	-.001965	-.001453	-.001590	-.000767	-.004886	-.008209
Stddev	.000805	.001245	.000631	.001365	.000602	.003765	.000610
%RSD	172.4165	63.37676	43.42232	85.82756	78.51621	77.06048	7.435105
#1	-.000387	-.003123	-.001650	-.001164	-.001162	-.009155	-.007562
#2	-.001309	-.000648	-.001961	-.003117	-.001065	-.003464	-.008290
#3	.000295	-.002123	-.000747	-.000489	-.000074	-.002039	-.008774

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000543	-.000134	-.015540	-.000130	-.000154	-.000552	-.010169
Stddev	.0000258	.000028	.011325	.000190	.000027	.000131	.002355
%RSD	47.41987	21.07603	72.87398	146.1526	17.55740	23.80804	23.15723
#1	.0000812	-.000108	-.007418	-.000310	-.000126	-.000412	-.010701
#2	.0000520	-.000164	-.028476	-.000147	-.000154	-.000672	-.007594
#3	.0000298	-.000131	-.010726	.000068	-.000180	-.000572	-.012213

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004018	-.007370	-.000489	.0005663	-.331604	-.001593	-.002192
Stddev	.000222	.003612	.000271	.0001883	.002660	.000566	.000125
%RSD	5.537588	49.00717	55.38918	33.24597	.8020803	35.53515	5.713358
#1	-.004111	-.008177	-.000780	.0004283	-.334360	-.002186	-.002066
#2	-.003764	-.003423	-.000442	.0004899	-.331401	-.001059	-.002317
#3	-.004178	-.010510	-.000244	.0007808	-.329052	-.001534	-.002193

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.250047	-.003103	-.000352	-.001260	.0011668	-.001123	-.000996
Stddev	.017391	.000353	.000219	.000549	.0001959	.002658	.001532
%RSD	6.955092	11.37809	62.29934	43.57467	16.78658	236.6467	153.8435
#1	-.248146	-.002830	-.000363	-.001673	.0011019	.001333	-.002101
#2	-.233684	-.002978	-.000127	-.000637	.0013870	-.003946	-.001640
#3	-.268310	-.003502	-.000565	-.001470	.0010117	-.000757	.000753

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCB01 Acquired: 4/10/2025 11:21:50 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.004314	-.004869	-.000360
Stddev	.002401	.000821	.000009
%RSD	55.65688	16.86788	2.535756
#1	-.005980	-.004554	-.000355
#2	-.001562	-.005801	-.000371
#3	-.005400	-.004252	-.000356

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3322.171	80811.57	15372.33	2187.221	5538.030
Stddev	7.878	139.98	29.73	12.978	21.157
%RSD	.2371306	.1732142	.1933814	.5933369	.3820327
#1	3325.437	80716.47	15345.52	2184.896	5552.778
#2	3327.890	80972.30	15404.30	2201.204	5547.523
#3	3313.185	80745.93	15367.17	2175.563	5513.790

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PB167483BL Acquired: 4/10/2025 11:26:11 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000093	-.001873	-.001399	-.001962	-.000591	-.003628	-.006901
Stddev	.000265	.000762	.001439	.000986	.001541	.003039	.000894
%RSD	286.5166	40.67823	102.9055	50.26068	260.4812	83.77583	12.95630
#1	.000154	-.001070	-.002074	-.000901	.001043	-.001938	-.007933
#2	-.000059	-.001963	-.002376	-.002850	-.002017	-.001810	-.006411
#3	-.000373	-.002587	.000254	-.002136	-.000800	-.007137	-.006358

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000307	-.000092	-.017919	-.000137	-.000246	.0001460	-.004367
Stddev	.0000384	.000066	.007572	.000223	.000081	.0000513	.003513
%RSD	125.0910	71.84017	42.26024	163.0565	32.97934	35.13759	80.43556
#1	.0000425	-.000085	-.025560	.000112	-.000327	.0000869	-.005764
#2	-.000012	-.000030	-.017779	-.000203	-.000249	.0001716	-.006966
#3	.000062	-.000162	-.010417	-.000320	-.000164	.0001795	-.000371

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003518	-.010547	-.000407	.0001416	-.335397	-.001523	-.001758
Stddev	.000096	.006604	.000082	.0001453	.018775	.001973	.000268
%RSD	2.718510	62.61354	20.09452	102.5703	5.597778	129.5365	15.23331
#1	-.003427	-.003795	-.000499	.0001624	-.349458	-.001485	-.002066
#2	-.003617	-.016992	-.000343	.0002754	-.342657	.000430	-.001576
#3	-.003510	-.010855	-.000380	-.000013	-.314076	-.003514	-.001633

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.270748	-.004019	-.000412	-.001240	.0007276	.0019410	-.001644
Stddev	.011987	.000280	.000080	.000325	.0005319	.0083132	.001708
%RSD	4.427501	6.972692	19.32645	26.22709	73.10601	428.2906	103.8930
#1	-.257109	-.004211	-.000404	-.001595	.0005749	-.006929	.000327
#2	-.279611	-.004148	-.000495	-.000958	.0002887	.003198	-.002568
#3	-.275524	-.003697	-.000336	-.001166	.0013191	.009554	-.002691

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PB167483BL Acquired: 4/10/2025 11:26:11 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.004979	-.005493	-.000362
Stddev	.001646	.000658	.000035
%RSD	33.05569	11.98151	9.720780
#1	-.003096	-.006131	-.000334
#2	-.005696	-.004816	-.000350
#3	-.006145	-.005531	-.000402

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3324.066	79259.33	15617.20	2169.533	5540.865
Stddev	12.598	173.96	68.78	6.543	13.385
%RSD	.3790075	.2194829	.4404303	.3015785	.2415705
#1	3334.517	79456.24	15581.66	2176.308	5551.905
#2	3327.605	79195.25	15573.47	2169.039	5544.713
#3	3310.077	79126.50	15696.49	2163.251	5525.978

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PB167483BS Acquired: 4/10/2025 11:30:30 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7630763	1.925439	.9072437	1.962402	.7960454	1.830571
Stddev	.0058421	.018151	.0007563	.012419	.0059523	.029993
%RSD	.7655981	.9427066	.0833576	.6328299	.7477285	1.638453
#1	.7597388	1.908570	.9068929	1.952561	.7905227	1.864255
#2	.7596679	1.944646	.9081117	1.958289	.7952635	1.820699
#3	.7698220	1.923102	.9067266	1.976355	.8023500	1.806758

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1691284	.1865247	.1819346	.9040928	.3857396	.1837087
Stddev	.0021816	.0026585	.0000822	.0149973	.0009511	.0000773
%RSD	1.289879	1.425289	.0451900	1.658818	.2465740	.0420662
#1	.1712839	.1895797	.1819751	.9212566	.3867874	.1837691
#2	.1691794	.1852578	.1819888	.8935183	.3855008	.1836216
#3	.1669217	.1847366	.1818400	.8975034	.3849307	.1837353

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3006019	2.968453	.1834906	1.770230	.4695466	.0716884
Stddev	.0014033	.016980	.0023880	.028314	.0007047	.0001799
%RSD	.4668310	.5719995	1.301416	1.599444	.1500694	.2510026
#1	.2991703	2.949085	.1862302	1.802733	.4687376	.0717661
#2	.3006602	2.980777	.1823919	1.750917	.4698755	.0714826
#3	.3019751	2.975496	.1818497	1.757041	.4700267	.0718164

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.722283	.2707977	.1947905	9.628228	.2475330	.3902303
Stddev	.012123	.0024750	.0006304	.023749	.0037072	.0014835
%RSD	.4453381	.9139758	.3236460	.2466619	1.497673	.3801486
#1	2.726948	.2736263	.1942992	9.602122	.2518020	.3888442
#2	2.731381	.2690301	.1945710	9.648551	.2451243	.3900519
#3	2.708520	.2697366	.1955014	9.634012	.2456727	.3917949

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PB167483BS Acquired: 4/10/2025 11:30:30 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6411569	.1804015	.8145317	5.434024	F -.014016	.1837233
Stddev	.0008907	.0019096	.0034072	.017705	.002573	.0021047
%RSD	.1389227	1.058539	.4183043	.3258094	18.36051	1.145556
#1	.6402011	.1826062	.8148883	5.454466	-.011995	.1861188
#2	.6413057	.1792643	.8109602	5.423579	-.016913	.1828799
#3	.6419638	.1793340	.8177466	5.424027	-.013140	.1821711

Elem	Sr4077
Units	ppm
Avg	.1827041
Stddev	.0021335
%RSD	1.167751
#1	.1851424
#2	.1817897
#3	.1811802

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3176.630	77875.77	15397.77	2097.993	5179.297
Stddev	10.611	95.84	211.91	4.364	10.848
%RSD	.3340322	.1230629	1.376216	.2079926	.2094586
#1	3179.117	77783.34	15153.56	2102.125	5170.315
#2	3185.776	77869.30	15506.66	2093.430	5191.350
#3	3164.996	77974.68	15533.09	2098.424	5176.226

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PB167497BL Acquired: 4/10/2025 11:34:32 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004105	-.002175	-.001531	-.002498	-.001134	-.004825	-.009186
Stddev	.0009871	.001151	.001282	.001977	.001908	.001883	.000121
%RSD	240.4417	52.91938	83.75882	79.14262	168.1999	39.02692	1.311936
#1	.0008200	-.002695	-.001826	-.004770	-.000010	-.006702	-.009269
#2	.0011269	-.002975	-.002640	-.001167	-.003338	-.002936	-.009241
#3	-.000715	-.000856	-.000127	-.001557	-.000056	-.004838	-.009047

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000744	-.000133	-.016580	-.000262	-.000418	-.000063	-.007860
Stddev	.0000717	.000033	.005591	.000427	.000075	.000294	.003812
%RSD	96.41895	24.99737	33.72252	162.8753	17.85548	468.9326	48.49733
#1	.0000060	-.000170	-.010277	-.000199	-.000374	.000107	-.004079
#2	.0001490	-.000105	-.018522	-.000717	-.000375	-.000402	-.007799
#3	.0000681	-.000124	-.020941	.000130	-.000504	.000107	-.011701

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003717	.0005133	-.000349	.0007252	-.337274	-.001788	-.002145
Stddev	.000055	.0087697	.000278	.0000958	.020340	.000769	.000296
%RSD	1.489299	1708.496	79.55748	13.20811	6.030783	42.99073	13.79705
#1	-.003735	-.003018	-.000044	.0007244	-.359254	-.000905	-.002418
#2	-.003655	-.005941	-.000586	.0008214	-.333452	-.002149	-.001831
#3	-.003761	.010498	-.000417	.0006299	-.319115	-.002310	-.002188

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.268225	-.005537	-.000420	-.001293	.0011093	.0000215	-.002900
Stddev	.028806	.000463	.000267	.000484	.0004024	.0015914	.001245
%RSD	10.73961	8.354651	63.47459	37.40556	36.27726	7413.259	42.94398
#1	-.301426	-.005886	-.000450	-.000739	.0015677	-.001575	-.001481
#2	-.249863	-.005012	-.000140	-.001505	.0009462	.000031	-.003406
#3	-.253387	-.005714	-.000670	-.001634	.0008140	.001608	-.003813

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PB167497BL Acquired: 4/10/2025 11:34:32 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.004423	-.004737	-.000358
Stddev	.001547	.000300	.000056
%RSD	34.98056	6.329930	15.61035
#1	-.004691	-.004888	-.000338
#2	-.005819	-.004931	-.000316
#3	-.002759	-.004391	-.000422

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3237.365	79651.17	16444.51	2133.228	5440.845
Stddev	5.751	2545.63	119.54	60.388	4.857
%RSD	.1776503	3.195969	.7269140	2.830833	.0892609
#1	3243.833	82579.02	16349.56	2202.697	5438.951
#2	3235.434	78413.09	16405.23	2093.277	5437.222
#3	3232.827	77961.41	16578.75	2103.709	5446.364

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PB167497BS Acquired: 4/10/2025 11:38:51 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7715250	1.943734	.9190867	1.990186	.8038979	1.838379
Stddev	.0026160	.010580	.0018564	.013101	.0021617	.005685
%RSD	.3390699	.5443146	.2019819	.6582857	.2689065	.3092182
#1	.7727607	1.931692	.9212020	1.986940	.8014041	1.844798
#2	.7685200	1.951538	.9177285	1.979013	.8050504	1.836358
#3	.7732942	1.947972	.9183297	2.004605	.8052390	1.833981

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1673807	.1950672	.1847232	.9060386	.3829456	.1867503
Stddev	.0008401	.0004186	.0004334	.0070046	.0013237	.0004237
%RSD	.5019296	.2145673	.2346468	.7731057	.3456536	.2268849
#1	.1675746	.1953179	.1849652	.9139539	.3842946	.1863051
#2	.1664606	.1952997	.1842228	.9035217	.3828935	.1867974
#3	.1681069	.1945840	.1849816	.9006402	.3816488	.1871486

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3045778	2.775839	.1773149	1.772450	.4748527	.0709678
Stddev	.0016381	.016871	.0005603	.008905	.0008273	.0000494
%RSD	.5378280	.6077957	.3159966	.5023915	.1742277	.0696623
#1	.3038276	2.794599	.1779606	1.762288	.4742613	.0710234
#2	.3034492	2.771008	.1770269	1.778890	.4744988	.0709508
#3	.3064567	2.761910	.1769572	1.776172	.4757982	.0709290

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.526457	.2721009	.1939048	9.034127	.2615344	.3957228
Stddev	.007827	.0012722	.0009034	.035483	.0011004	.0014429
%RSD	.3097861	.4675420	.4659259	.3927716	.4207403	.3646187
#1	2.526287	.2711192	.1941098	9.065579	.2617811	.3947711
#2	2.518716	.2735381	.1929165	8.995660	.2624905	.3950143
#3	2.534366	.2716454	.1946882	9.041144	.2603316	.3973829

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PB167497BS Acquired: 4/10/2025 11:38:51 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6518475	.1807321	.7672256	5.462897	F -.013838	.1809877
Stddev	.0014646	.0010201	.0043115	.031250	.000488	.0008345
%RSD	.2246855	.5644449	.5619555	.5720321	3.527154	.4610864
#1	.6502891	.1810056	.7648477	5.437226	-.013797	.1818044
#2	.6520579	.1796031	.7722025	5.453772	-.014345	.1801364
#3	.6531956	.1815876	.7646268	5.497693	-.013372	.1810224

Elem	Sr4077
Units	ppm
Avg	.1814793
Stddev	.0007189
%RSD	.3961576
#1	.1823059
#2	.1809996
#3	.1811324

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3203.336	81081.93	14840.03	2159.103	5203.674
Stddev	5.886	216.82	32.61	1.602	7.263
%RSD	.1837542	.2674098	.2197227	.0742125	.1395808
#1	3209.043	80860.58	14815.70	2157.911	5211.913
#2	3203.679	81091.31	14827.32	2160.924	5200.914
#3	3197.286	81293.91	14877.08	2158.472	5198.195

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1715-01 Acquired: 4/10/2025 11:42:54 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001976	-.008457	-.001115	.0032455	-.003264	16.36833
Stddev	.000819	.002625	.001767	.0022608	.002524	.03162
%RSD	41.47183	31.03896	158.4603	69.66020	77.33556	.1931544
#1	-.002280	-.008610	.000654	.0058173	-.004538	16.38023
#2	-.002599	-.011002	-.002880	.0023484	-.004896	16.33249
#3	-.001048	-.005759	-.001118	.0015710	-.000357	16.39228

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.009288	-.000018	-.000216	10.17977	.9291275	.0103214
Stddev	.000506	.000047	.000081	.02611	.0018785	.0000956
%RSD	5.448336	261.6489	37.42648	.2564666	.2021781	.9263510
#1	-.009842	-.000051	-.000229	10.16401	.9312317	.0104318
#2	-.008850	-.000038	-.000129	10.16540	.9276193	.0102660
#3	-.009173	.000035	-.000289	10.20991	.9285315	.0102663

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0209526	.5265676	.0121156	2.200563	.0365630	.0004319
Stddev	.0002027	.0045618	.0001929	.004913	.0003203	.0004061
%RSD	.9675122	.8663314	1.591784	.2232477	.8758869	94.03052
#1	.0208956	.5216361	.0123181	2.205897	.0369324	-.000032
#2	.0207844	.5306367	.0119341	2.199568	.0363648	.000721
#3	.0211777	.5274300	.0120947	2.196224	.0363917	.000608

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 1861.883	-.001273	1.223496	190.7616	5.662378	.0398473
Stddev	7.445	.000317	.004304	.5569	.021544	.0002022
%RSD	.3998701	24.88869	.3517631	.2919173	.3804703	.5074051
#1	1870.291	-.001006	1.227265	191.3364	5.648254	.0398272
#2	1859.228	-.001189	1.224417	190.7239	5.651705	.0396560
#3	1856.128	-.001623	1.218806	190.2246	5.687174	.0400588

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1715-01 Acquired: 4/10/2025 11:42:54 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0375681	.0004317	.7628360	5.223920	F 836.4594	-.000467
Stddev	.0006005	.0004245	.0081592	.034792	2.0127	.000730
%RSD	1.598400	98.31900	1.069589	.6660149	.2406167	156.5414
#1	.0369700	.0004502	.7601136	5.200218	835.9797	-.000620
#2	.0381710	.0008466	.7720083	5.207679	834.7299	.000328
#3	.0375634	-.000002	.7563860	5.263863	838.6686	-.001108

Elem	Sr4077
Units	ppm
Avg	.0460039
Stddev	.0000294
%RSD	.0638568
#1	.0459707
#2	.0460266
#3	.0460145

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2710.282	65392.65	13967.05	1766.142	3919.106
Stddev	13.007	226.38	78.73	4.523	18.135
%RSD	.4798960	.3461876	.5636874	.2560721	.4627232
#1	2711.440	65226.32	13981.60	1762.616	3923.135
#2	2722.671	65650.45	14037.48	1771.241	3934.888
#3	2696.735	65301.17	13882.05	1764.568	3899.296

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1745-01 Acquired: 4/10/2025 11:47:15 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0621837	.0052527	3.869204	-.018206	.0762525	71.63698	1.969675
Stddev	.0018359	.0032587	.014376	.003846	.0005526	.26856	.010323
%RSD	2.952410	62.03928	.3715615	21.12297	.7246887	.3748951	.5241073
#1	.0631988	.0016198	3.871063	-.013818	.0756437	71.32867	1.958003
#2	.0600644	.0062202	3.882561	-.019810	.0767223	71.82004	1.973413
#3	.0632879	.0079182	3.853989	-.020990	.0763915	71.76224	1.977607

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0065838	.0016238	48.53476	.3031900	.0818225	7.077507	179.5087
Stddev	.0000121	.0002438	.17948	.0010580	.0005476	.021389	.9706
%RSD	.1830372	15.01492	.3697878	.3489709	.6693020	.3022132	.5407113
#1	.0065837	.0018891	48.33258	.3020499	.0824522	7.083701	178.6394
#2	.0065719	.0015729	48.59645	.3033796	.0815573	7.095116	179.3307
#3	.0065960	.0014095	48.67526	.3041404	.0814579	7.053705	180.5560

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.844063	28.80764	.3688022	.0143762	6.121834	.2031928	8.908127
Stddev	.003522	.03347	.0008354	.0001891	.033884	.0013595	.020692
%RSD	.1909835	.1161923	.2265143	1.315167	.5534983	.6690672	.2322848
#1	1.840055	28.76938	.3695887	.0141762	6.085471	.2016246	8.892293
#2	1.846662	28.83149	.3688925	.0145521	6.127509	.2040388	8.900548
#3	1.845471	28.82206	.3679253	.0144003	6.152523	.2039150	8.931540

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.924213	.3395212	.0034264	3.819395	2.252329	9.209509	4.869236
Stddev	.077293	.0014112	.0004753	.017064	.007367	.030499	.020385
%RSD	.7788328	.4156489	13.87107	.4467665	.3271013	.3311693	.4186503
#1	9.844656	.3387241	.0028778	3.827215	2.243831	9.174430	4.873574
#2	9.928958	.3386888	.0036887	3.831146	2.256918	9.224341	4.887103
#3	9.999024	.3411506	.0037127	3.799822	2.256238	9.229755	4.847031

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1745-01 Acquired: 4/10/2025 11:47:15 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	8.477923	.2178928	.2915500
Stddev	.036692	.0018117	.0016034
%RSD	.4327995	.8314521	.5499473
#1	8.510088	.2158561	.2897652
#2	8.485724	.2184977	.2920163
#3	8.437958	.2193247	.2928685

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3497.941	85239.44	17000.16	2268.545	4879.426
Stddev	8.313	112.57	39.67	4.738	13.907
%RSD	.2376672	.1320671	.2333585	.2088522	.2850100
#1	3496.488	85363.44	16983.16	2270.847	4869.790
#2	3490.450	85211.22	16971.82	2271.692	4873.119
#3	3506.885	85143.66	17045.49	2263.096	4895.369

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1745-09 Acquired: 4/10/2025 11:51:18 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5383387	.0113974	10.36788	-.011292	-.000137	84.13329
Stddev	.0042067	.0018848	.01881	.003059	.001899	.46851
%RSD	.7814301	16.53714	.1813890	27.08593	1382.621	.5568632
#1	.5414394	.0126834	10.38950	-.014243	-.000697	83.95050
#2	.5335502	.0092338	10.35532	-.008136	-.001693	83.78373
#3	.5400266	.0122749	10.35881	-.011496	.001979	84.66564

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.766048	.0080410	.0018883	146.1714	.2424032	.0912317
Stddev	.063025	.0001170	.0001546	1.0034	.0009954	.0002973
%RSD	1.093037	1.454785	8.185764	.6864649	.4106337	.3258381
#1	5.773907	.0080004	.0017389	145.7628	.2428947	.0908884
#2	5.699462	.0079497	.0020476	145.4367	.2430573	.0914068
#3	5.824775	.0081729	.0018784	147.3146	.2412577	.0913998

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.241632	276.5256	2.880695	15.32766	.3896574	.0452604
Stddev	.002388	.9993	.016887	.09528	.0013374	.0003538
%RSD	.0736762	.3613891	.5862129	.6216485	.3432350	.7817298
#1	3.242434	277.1669	2.875984	15.29966	.3907459	.0455322
#2	3.243516	277.0358	2.866663	15.24951	.3881644	.0453887
#3	3.238946	275.3742	2.899437	15.43381	.3900618	.0448604

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.83741	.3155223	4.359728	18.59240	.4935762	.0371060
Stddev	.08472	.0010540	.019759	.10458	.0033444	.0002899
%RSD	.5031356	.3340476	.4532056	.5624842	.6775843	.7813456
#1	16.87531	.3153947	4.361220	18.65093	.4965987	.0368389
#2	16.89656	.3145379	4.378699	18.65461	.4941468	.0374143
#3	16.74036	.3166343	4.339266	18.47166	.4899833	.0370648

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1745-09 Acquired: 4/10/2025 11:51:18 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.943054	1.435652	5.548383	F 11.47938	F 17.39359	.3738001
Stddev	.007662	.007769	.029424	.03094	.03881	.0011864
%RSD	.3943100	.5411491	.5303191	.2695626	.2231453	.3173942
#1	1.949337	1.428547	5.577773	11.51395	17.43660	.3739304
#2	1.934518	1.434460	5.548453	11.45425	17.36118	.3725539
#3	1.945305	1.443948	5.518924	11.46995	17.38298	.3749160

Elem	Sr4077
Units	ppm
Avg	.9731438
Stddev	.0148253
%RSD	1.523448
#1	.9591113
#2	.9886517
#3	.9716684

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3219.484	79986.35	16826.85	2094.279	4528.274
Stddev	6.329	451.35	100.08	13.754	5.902
%RSD	.1965754	.5642896	.5947639	.6567406	.1303421
#1	3223.072	79975.41	16900.56	2097.530	4529.205
#2	3212.177	79540.56	16867.08	2079.191	4521.961
#3	3223.204	80443.07	16712.92	2106.116	4533.655

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1748-01 Acquired: 4/10/2025 11:55:38 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1337580	.0153978	8.110684	-.006910	.0007800	82.51350
Stddev	.0026948	.0010311	.020474	.001673	.0010228	.28015
%RSD	2.014674	6.696485	.2524299	24.20292	131.1271	.3395175
#1	.1332039	.0145125	8.118593	-.008714	.0015712	82.21606
#2	.1366867	.0151510	8.087435	-.005411	-.000375	82.77236
#3	.1313833	.0165299	8.126024	-.006606	.001144	82.55208

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.838236	.0073602	-.000763	214.3819	.1993808	.1022104
Stddev	.011096	.0000657	.000496	.6067	.0002781	.0003998
%RSD	.3909539	.8927223	65.02608	.2829792	.1394647	.3911260
#1	2.826659	.0073363	-.000242	213.8737	.1990605	.1024700
#2	2.848779	.0073098	-.001230	215.0535	.1995226	.1017501
#3	2.839270	.0074345	-.000816	214.2184	.1995594	.1024113

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.472130	285.2394	2.734795	33.48808	.4171479	.0216041
Stddev	.008326	1.6991	.014820	.14734	.0004454	.0000587
%RSD	.1521499	.5956812	.5418941	.4399779	.1067705	.2718374
#1	5.476499	283.5947	2.720190	33.39873	.4173762	.0216719
#2	5.462529	286.9882	2.749821	33.65814	.4166347	.0215706
#3	5.477361	285.1354	2.734374	33.40736	.4174329	.0215699

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.70942	.3226802	4.490134	13.39560	.4560888	.0205097
Stddev	.13365	.0012693	.022446	.10146	.0043441	.0000826
%RSD	.5408998	.3933639	.4999046	.7574204	.9524715	.4029517
#1	24.56713	.3229711	4.505617	13.28095	.4516356	.0204379
#2	24.83232	.3237788	4.500395	13.47382	.4603150	.0206000
#3	24.72880	.3212907	4.464391	13.43202	.4563157	.0204911

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1748-01 Acquired: 4/10/2025 11:55:38 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.492437	1.984416	4.907175	F 13.87163	F 14.90210	.2503499
Stddev	.009386	.003500	.024367	.07351	.04034	.0013713
%RSD	.6289197	.1763598	.4965681	.5299075	.2706960	.5477504
#1	1.498026	1.981694	4.895532	13.94639	14.87796	.2489411
#2	1.481601	1.988364	4.935180	13.79944	14.87967	.2516803
#3	1.497685	1.983190	4.890813	13.86906	14.94867	.2504285

Elem	Sr4077
Units	ppm
Avg	1.108628
Stddev	.014108
%RSD	1.272558
#1	1.124417
#2	1.097261
#3	1.104205

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3229.056	79311.55	16461.70	2068.597	4544.679
Stddev	1.828	127.69	34.42	4.273	4.013
%RSD	.0566082	.1609997	.2090878	.2065862	.0882983
#1	3226.959	79383.87	16433.59	2069.008	4542.346
#2	3230.313	79164.12	16451.43	2064.132	4549.313
#3	3229.896	79386.68	16500.09	2072.649	4542.379

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1748-05 Acquired: 4/10/2025 11:59:50 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0412148	.0146007	1.392178	-.030233	-.006601	128.3542
Stddev	.0014395	.0011480	.001455	.001842	.002644	.1147
%RSD	3.492574	7.862302	.1045412	6.092149	40.05662	.0893689
#1	.0417747	.0138654	1.392782	-.031308	-.009636	128.4090
#2	.0395795	.0140133	1.390518	-.028107	-.004791	128.4313
#3	.0422902	.0159235	1.393234	-.031285	-.005377	128.2224

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.417618	.0112488	-.000780	39.03395	.2769398	.1775605
Stddev	.002624	.0000950	.000174	.04658	.0022470	.0004448
%RSD	.1851091	.8444886	22.29084	.1193298	.8113650	.2504845
#1	1.415041	.0112743	-.000762	39.08499	.2783582	.1780251
#2	1.420287	.0111436	-.000616	38.99375	.2743491	.1771386
#3	1.417526	.0113284	-.000963	39.02310	.2781122	.1775178

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6572381	354.9531	8.694815	54.56552	.3370640	.0239940
Stddev	.0008417	1.1448	.010035	.13404	.0003581	.0002323
%RSD	.1280679	.3225185	.1154152	.2456491	.1062332	.9679666
#1	.6580611	355.5494	8.698114	54.69691	.3366505	.0238234
#2	.6572745	353.6333	8.683545	54.42898	.3372702	.0239001
#3	.6563788	355.6767	8.702785	54.57067	.3372712	.0242585

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.084785	.3340663	.9572255	21.97316	.5862531	.0011401
Stddev	.021936	.0012291	.0015187	.00885	.0019942	.0002380
%RSD	.2414626	.3679141	.1586535	.0402633	.3401547	20.87662
#1	9.108422	.3351455	.9559500	21.97216	.5878204	.0012543
#2	9.065082	.3327285	.9568211	21.96485	.5840085	.0008665
#3	9.080850	.3343249	.9589055	21.98246	.5869304	.0012994

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1748-05 Acquired: 4/10/2025 11:59:50 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4844298	3.266745	7.712326	7.161487	F 17.37934	.3972862
Stddev	.0023013	.004363	.012575	.009666	.02933	.0004873
%RSD	.4750454	.1335550	.1630550	.1349708	.1687892	.1226531
#1	.4817752	3.270044	7.717758	7.161594	17.41303	.3975801
#2	.4856533	3.268391	7.697947	7.171100	17.35950	.3975548
#3	.4858608	3.261798	7.721272	7.151769	17.36547	.3967237

Elem	Sr4077
Units	ppm
Avg	.2130206
Stddev	.0001817
%RSD	.0852772
#1	.2131192
#2	.2131317
#3	.2128110

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3756.197	91926.21	19940.48	2438.418	4614.887
Stddev	5.220	403.94	41.71	9.476	7.056
%RSD	.1389608	.4394227	.2091867	.3886108	.1529041
#1	3750.235	91566.51	19900.84	2436.288	4608.798
#2	3758.416	92363.23	19984.00	2430.189	4622.620
#3	3759.942	91848.89	19936.59	2448.778	4613.244

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1749-01 Acquired: 4/10/2025 12:03:53 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0263095	-.002132	2.551917	-.011869	.0193977	35.80367	.2327218
Stddev	.0035903	.001205	.007527	.002543	.0011972	.09979	.0003863
%RSD	13.64634	56.53365	.2949591	21.42917	6.171885	.2787205	.1660103
#1	.0301201	-.003247	2.551344	-.014076	.0183091	35.75458	.2323119
#2	.0258181	-.000853	2.544693	-.009088	.0192042	35.73793	.2330792
#3	.0229902	-.002295	2.559715	-.012442	.0206799	35.91850	.2327744

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0044544	-.001895	5.389428	.1105721	.0399298	.4461174	80.02505
Stddev	.0000153	.000074	.007969	.0002625	.0003328	.0010337	.19662
%RSD	.3429942	3.921047	.1478707	.2374084	.8335478	.2317013	.2456956
#1	.0044371	-.001942	5.386353	.1105512	.0400127	.4473069	80.05942
#2	.0044602	-.001933	5.398476	.1108445	.0395634	.4456075	80.20222
#3	.0044660	-.001809	5.383453	.1103207	.0402134	.4454377	79.81352

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3470551	2.676767	.0781860	.0034198	1.550109	.1871101	.8672368
Stddev	.0011583	.009946	.0004096	.0002109	.004256	.0016068	.0045488
%RSD	.3337507	.3715563	.5238490	6.165837	.2745331	.8587522	.5245149
#1	.3460942	2.670906	.0777242	.0036082	1.553110	.1887573	.8628774
#2	.3467298	2.688251	.0783284	.0034592	1.551979	.1855470	.8668791
#3	.3483412	2.671144	.0785054	.0031920	1.545239	.1870259	.8719539

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.515107	.1192863	.0077841	.0623217	.6549549	3.672151	1.194476
Stddev	.024358	.0004685	.0001622	.0006084	.0025855	.010536	.004407
%RSD	1.607701	.3927310	2.084094	.9763091	.3947538	.2869252	.3689346
#1	1.505630	.1196245	.0078735	.0629500	.6542647	3.671911	1.193477
#2	1.496910	.1194828	.0078820	.0617352	.6578154	3.682805	1.190654
#3	1.542779	.1187516	.0075969	.0622800	.6527846	3.661736	1.199296

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1749-01 Acquired: 4/10/2025 12:03:53 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.007419	.0380890	.0408115
Stddev	.004346	.0003134	.0001224
%RSD	.4314318	.8227223	.2998070
#1	1.010931	.0379470	.0408753
#2	1.008768	.0384482	.0406704
#3	1.002558	.0378717	.0408887

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3396.554	83900.54	15641.65	2257.668	5162.635
Stddev	6.020	315.78	91.71	9.766	2.406
%RSD	.1772315	.3763751	.5863058	.4325644	.0465964
#1	3393.401	84206.19	15747.50	2263.820	5164.063
#2	3392.765	83575.52	15591.32	2246.408	5159.857
#3	3403.495	83919.92	15586.13	2262.778	5163.984

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCV02 Acquired: 4/10/2025 12:08:04 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.802838	4.856003	4.715725	4.864793	4.969272	9.830462
Stddev	.032649	.032992	.011303	.031089	.032725	.025840
%RSD	.6797838	.6794148	.2396891	.6390657	.6585442	.2628606
#1	4.770673	4.819382	4.704966	4.832143	4.935885	9.844570
#2	4.801892	4.865221	4.714708	4.868194	4.970640	9.800639
#3	4.835950	4.883406	4.727503	4.894042	5.001291	9.846178

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.675149	.2492668	2.354865	24.00969	1.021131	2.467166
Stddev	.121843	.0014188	.004534	.10816	.004184	.003867
%RSD	1.259335	.5692041	.1925175	.4504649	.4096958	.1567372
#1	9.534625	.2487899	2.349691	24.00712	1.021737	2.462863
#2	9.739464	.2481478	2.356768	23.90285	1.024979	2.468284
#3	9.751358	.2508626	2.358138	24.11911	1.016678	2.470351

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.274572	5.226019	2.344493	24.11762	2.479125	1.260692
Stddev	.003724	.029528	.007568	.14533	.007270	.001004
%RSD	.2921654	.5650112	.3228177	.6025807	.2932337	.0796408
#1	1.271021	5.257124	2.348683	24.11060	2.471259	1.261595
#2	1.274247	5.222559	2.335757	23.97593	2.480520	1.260870
#3	1.278448	5.198374	2.349041	24.26633	2.485596	1.259611

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.09167	2.432752	2.534778	26.80812	F 4.453158	4.963059
Stddev	.23644	.013378	.006893	.24021	.029796	.020281
%RSD	.8727578	.5499305	.2719438	.8960525	.6691066	.4086431
#1	27.26305	2.433253	2.537694	26.99506	4.443995	4.943006
#2	27.19005	2.419130	2.539733	26.89211	4.429019	4.962609
#3	26.82192	2.445873	2.526906	26.53719	4.486460	4.983561

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCV02 Acquired: 4/10/2025 12:08:04 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.797318	4.656074	F 6.242821	4.827944	4.675280	4.650698
Stddev	.016507	.018640	.022329	.015283	.016124	.020174
%RSD	.3440958	.4003354	.3576694	.3165476	.3448732	.4337817
#1	4.779555	4.660155	6.266186	4.811077	4.657591	4.671786
#2	4.800211	4.635732	6.240578	4.831886	4.689153	4.631584
#3	4.812187	4.672336	6.221698	4.840870	4.679096	4.648725

Elem	Sr4077
Units	ppm
Avg	4.714991
Stddev	.075301
%RSD	1.597063
#1	4.718630
#2	4.637936
#3	4.788407

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3164.474	75871.85	14926.97	2040.820	4906.699
Stddev	12.872	139.09	96.83	1.604	13.648
%RSD	.4067776	.1833158	.6486701	.0785999	.2781549
#1	3177.929	75814.89	14947.34	2042.649	4922.410
#2	3163.218	75770.29	15011.99	2040.161	4899.921
#3	3152.276	76030.37	14821.58	2039.651	4897.767

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCB02 Acquired: 4/10/2025 12:12:15 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002084	-.000844	-.001480	-.002703	-.000101	-.003730	-.008985
Stddev	.001231	.000336	.001586	.000833	.002569	.001525	.000750
%RSD	59.06313	39.78608	107.1267	30.82673	2541.068	40.87958	8.345073
#1	-.003415	-.001192	-.002084	-.003660	-.000959	-.002520	-.008634
#2	-.001854	-.000820	-.002675	-.002138	-.002131	-.005443	-.008475
#3	-.000985	-.000521	.000319	-.002310	.002787	-.003228	-.009846

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000872	-.000128	-.019729	-.000497	-.000061	-.000113	-.003734
Stddev	.0000158	.000020	.010143	.000307	.000137	.000299	.003066
%RSD	18.10682	15.59097	51.41254	61.78725	224.3550	265.4116	82.12178
#1	.0000940	-.000105	-.017671	-.000809	-.000218	.000159	-.000197
#2	.0000691	-.000137	-.010773	-.000195	-.000002	-.000434	-.005355
#3	.0000984	-.000142	-.030744	-.000486	.000037	-.000064	-.005648

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003760	-.001510	-.000085	.0007487	-.276556	-.000314	-.001871
Stddev	.000124	.006357	.000236	.0001485	.008074	.001510	.000233
%RSD	3.310885	420.9444	277.2274	19.83914	2.919447	481.5173	12.44726
#1	-.003638	-.008842	.000171	.0006926	-.285682	.001401	-.001619
#2	-.003887	.002469	-.000293	.0009171	-.273644	-.001445	-.002079
#3	-.003755	.001842	-.000133	.0006364	-.270343	-.000896	-.001914

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.188141	-.002074	-.000159	-.000541	.0013909	.0073831	-.001904
Stddev	.006446	.000346	.000101	.000718	.0001124	.0055700	.001351
%RSD	3.426344	16.66713	63.96711	132.5371	8.081531	75.44267	70.95387
#1	-.195080	-.001852	-.000258	-.000336	.0015084	.0122284	-.003297
#2	-.182339	-.001897	-.000162	-.001339	.0012844	.0086234	-.000600
#3	-.187004	-.002472	-.000056	.000051	.0013799	.0012975	-.001815

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCB02 Acquired: 4/10/2025 12:12:15 Type: Unk
Method: NON EPA-6010-200.7(v2915) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000836	-.004575	-.000256
Stddev	.000844	.000145	.000045
%RSD	101.0542	3.172848	17.40038
#1	.000086	-.004436	-.000213
#2	-.001021	-.004564	-.000302
#3	-.001572	-.004725	-.000254

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3264.874	78670.60	15545.19	2093.884	5490.688
Stddev	7.549	236.09	18.44	6.496	8.156
%RSD	.2312312	.3000992	.1186381	.3102268	.1485353
#1	3273.164	78865.01	15564.79	2092.322	5497.212
#2	3263.063	78407.89	15542.62	2088.312	5493.306
#3	3258.395	78738.90	15528.17	2101.019	5481.544

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1732-01 Acquired: 4/10/2025 12:17:10 Type: Unk
Method: NON EPA-6010-200.7(v2916) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0767385	.0007833	2.077115	-.033447	.0031573	114.6619	1.268970
Stddev	.0022883	.0017755	.009488	.001581	.0001956	.2569	.003666
%RSD	2.981928	226.6699	.4567838	4.726557	6.193994	.2240696	.2888681
#1	.0793127	-.000739	2.072189	-.033705	.0029364	114.7449	1.269544
#2	.0759675	.002734	2.071103	-.031753	.0033085	114.8671	1.272315
#3	.0749353	.000356	2.088052	-.034883	.0032268	114.3738	1.265051

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0081685	.0037783	223.7338	.2073820	.1843658	.7662815	269.1339
Stddev	.0000690	.0002192	.5835	.0010254	.0007802	.0012315	.2884
%RSD	.8443582	5.801127	.2607846	.4944235	.4231815	.1607136	.1071465
#1	.0081956	.0037198	224.3054	.2074057	.1836028	.7673678	269.1495
#2	.0082198	.0035944	223.7566	.2063450	.1843325	.7649436	269.4142
#3	.0080901	.0040208	223.1392	.2083953	.1851621	.7665331	268.8381

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.266042	59.04340	.3007113	.0088972	14.26703	.3757659	1.433027
Stddev	.027222	.17641	.0001809	.0002420	.06690	.0014663	.002824
%RSD	.4344443	.2987777	.0601520	2.719438	.4689462	.3902284	.1970839
#1	6.291010	59.22481	.3006850	.0089958	14.19294	.3762317	1.429802
#2	6.270095	59.03295	.3005450	.0090743	14.32301	.3769427	1.435063
#3	6.237020	58.87245	.3009039	.0086216	14.28515	.3741232	1.434214

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.78716	.4827309	.0069838	.0826710	3.824028	6.304579	8.145017
Stddev	.06695	.0015004	.0003700	.0017735	.011463	.027711	.008652
%RSD	.4855705	.3108185	5.298375	2.145300	.2997546	.4395407	.1062200
#1	13.73130	.4833897	.0073957	.0843441	3.830657	6.273886	8.150612
#2	13.86137	.4837892	.0066797	.0808117	3.830635	6.312092	8.135053
#3	13.76882	.4810138	.0068759	.0828572	3.810792	6.327760	8.149388

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1732-01 Acquired: 4/10/2025 12:17:10 Type: Unk
Method: NON EPA-6010-200.7(v2916) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.993543	.2634445	.7847101
Stddev	.019671	.0013245	.0027146
%RSD	.3282084	.5027654	.3459350
#1	5.975880	.2630607	.7853603
#2	5.990006	.2649185	.7870405
#3	6.014743	.2623543	.7817294

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3319.127	81533.91	18278.36	2123.044	4405.969
Stddev	9.357	124.46	42.89	10.784	13.802
%RSD	.2819115	.1526530	.2346289	.5079533	.3132582
#1	3310.730	81675.91	18229.11	2118.731	4402.713
#2	3329.214	81482.07	18307.42	2115.084	4421.108
#3	3317.437	81443.74	18298.57	2135.317	4394.087

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1733-01 Acquired: 4/10/2025 12:21:13 Type: Unk
Method: NON EPA-6010-200.7(v2916) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1538305	-.006345	.2719292	-.017465	-.003391	118.1648
Stddev	.0037608	.002536	.0008118	.005041	.002753	.0981
%RSD	2.444746	39.96407	.2985351	28.86468	81.16981	.0830285
#1	.1568863	-.007286	.2717626	-.014821	-.000253	118.0724
#2	.1496305	-.008275	.2712136	-.023278	-.004525	118.1544
#3	.1549747	-.003473	.2728113	-.014295	-.005396	118.2677

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6569979	.0334377	.0104923	77.75459	.3978178	.1557954
Stddev	.0013809	.0000965	.0001935	.17029	.0008122	.0006981
%RSD	.2101909	.2884921	1.844636	.2190045	.2041564	.4480828
#1	.6559452	.0333607	.0102919	77.68129	.3986567	.1550734
#2	.6564869	.0335459	.0106781	77.63323	.3970354	.1558461
#3	.6585615	.0334064	.0105069	77.94925	.3977613	.1564668

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2132617	137.7256	2.185400	104.2853	.2524029	.0093462
Stddev	.0004456	.6115	.005673	.2027	.0007114	.0001694
%RSD	.2089266	.4440328	.2595823	.1943449	.2818522	1.812824
#1	.2134498	137.9859	2.178851	104.3673	.2521298	.0092010
#2	.2135823	137.0269	2.188573	104.0545	.2518684	.0095324
#3	.2127529	138.1639	2.188777	104.4342	.2532103	.0093052

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	93.26922	.4298093	1.278364	19.21321	.2239240	.0078681
Stddev	.26914	.0005272	.003054	.07456	.0020932	.0001012
%RSD	.2885580	.1226633	.2389269	.3880680	.9347962	1.286582
#1	93.48311	.4292008	1.279068	19.27811	.2244435	.0078488
#2	93.35753	.4301286	1.275019	19.13177	.2216200	.0077779
#3	92.96703	.4300985	1.281004	19.22976	.2257086	.0079776

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1733-01 Acquired: 4/10/2025 12:21:13 Type: Unk
Method: NON EPA-6010-200.7(v2916) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0158175	.8284805	2.461302	F 27.71619	5.042854	.1095456
Stddev	.0016602	.0018557	.022192	.10150	.008033	.0001624
%RSD	10.49562	.2239890	.9016186	.3662175	.1592875	.1482605
#1	.0139038	.8279308	2.481614	27.64378	5.035134	.1093912
#2	.0168717	.8269617	2.437617	27.67258	5.042263	.1095306
#3	.0166770	.8305489	2.464674	27.83221	5.051166	.1097150

Elem	Sr4077
Units	ppm
Avg	.4569402
Stddev	.0010961
%RSD	.2398885
#1	.4559761
#2	.4567120
#3	.4581325

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3763.627	92459.53	18820.32	2440.662	4393.589
Stddev	13.115	259.09	50.91	14.306	6.547
%RSD	.3484647	.2802215	.2705240	.5861387	.1490176
#1	3748.533	92389.20	18876.92	2440.884	4388.848
#2	3770.111	92746.53	18805.75	2454.855	4401.060
#3	3772.236	92242.87	18778.27	2426.246	4390.860

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1740-01 Acquired: 4/10/2025 12:25:25 Type: Unk
Method: NON EPA-6010-200.7(v2916) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0257352	.0050319	.1357108	-.026269	-.004391	72.60556	.7193262
Stddev	.0019760	.0016948	.0016689	.000347	.001230	.07927	.0026920
%RSD	7.678202	33.68114	1.229727	1.320588	28.00520	.1091730	.3742383
#1	.0235541	.0040434	.1366482	-.026068	-.003138	72.66203	.7200795
#2	.0274060	.0069888	.1367002	-.026670	-.004439	72.63970	.7163378
#3	.0262455	.0040634	.1337840	-.026070	-.005597	72.51494	.7215612

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0102876	-.000491	18.94918	.1600540	.0871450	.2707263	187.6568
Stddev	.0001145	.000176	.07465	.0003267	.0001154	.0003311	.9876
%RSD	1.112792	35.82757	.3939730	.2041269	.1324083	.1223154	.5262617
#1	.0101557	-.000521	18.89573	.1596829	.0870148	.2703464	187.7413
#2	.0103607	-.000302	19.03448	.1601807	.0871858	.2708784	186.6297
#3	.0103464	-.000650	18.91732	.1602984	.0872345	.2709540	188.5994

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.708576	27.54385	.1902184	.0021293	7.784446	.2012734	.4776144
Stddev	.006362	.20984	.0007231	.0002849	.084034	.0014253	.0039770
%RSD	.1351164	.7618277	.3801230	13.38031	1.079508	.7081580	.8326876
#1	4.701769	27.37651	.1894306	.0023241	7.818653	.2028811	.4746491
#2	4.714372	27.77928	.1908519	.0018023	7.688703	.2007745	.4760602
#3	4.709587	27.47577	.1903725	.0022615	7.845981	.2001646	.4821338

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.554353	.2756024	.0000420	.0026325	2.212818	2.958227	6.931623
Stddev	.090602	.0024471	.0003164	.0003234	.001597	.030762	.033532
%RSD	1.059135	.8878990	753.0774	12.28713	.0721811	1.039884	.4837574
#1	8.593220	.2767601	.0001655	.0024794	2.211759	2.988415	6.892904
#2	8.450802	.2727913	.0002781	.0030040	2.212039	2.926921	6.950747
#3	8.619037	.2772558	-.000318	.0024139	2.214655	2.959346	6.951217

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1740-01 Acquired: 4/10/2025 12:25:25 Type: Unk
Method: NON EPA-6010-200.7(v2916) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3073152	.2026908	.1057872
Stddev	.0073233	.0012659	.0001818
%RSD	2.382999	.6245521	.1718637
#1	.3023398	.2014925	.1059969
#2	.3038813	.2025651	.1056916
#3	.3157244	.2040149	.1056732

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3582.471	86714.11	16537.82	2350.987	4898.685
Stddev	7.735	185.53	104.61	14.252	1.498
%RSD	.2159035	.2139550	.6325479	.6062087	.0305719
#1	3576.087	86855.97	16578.69	2353.084	4898.274
#2	3591.072	86782.19	16418.94	2364.074	4900.346
#3	3580.254	86504.15	16615.81	2335.802	4897.436

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1743-01 Acquired: 4/10/2025 12:29:30 Type: Unk
Method: NON EPA-6010-200.7(v2916) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0263876	-.003029	1.019781	-.015919	.0063378	49.20446	.4065609
Stddev	.0003581	.003309	.000858	.005182	.0003621	.11363	.0019672
%RSD	1.357219	109.2515	.0841604	32.55186	5.713533	.2309278	.4838659
#1	.0265895	.000656	1.019652	-.009961	.0067554	49.13357	.4046379
#2	.0259741	-.003995	1.018994	-.018413	.0061478	49.14429	.4085695
#3	.0265992	-.005747	1.020696	-.019382	.0061103	49.33552	.4064755

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0048292	-.000924	54.64361	.0982334	.1051883	.4532403	113.0016
Stddev	.0000420	.000272	.11135	.0016760	.0002675	.0012303	1.5004
%RSD	.8687091	29.43598	.2037835	1.706187	.2542649	.2714363	1.327785
#1	.0048015	-.001207	54.63201	.1001007	.1050238	.4520470	114.6832
#2	.0048087	-.000901	54.53852	.0968593	.1050441	.4531695	112.5216
#3	.0048775	-.000665	54.76032	.0977401	.1054969	.4545045	111.7999

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.117681	30.82602	.1175863	.0029603	1.748953	.2163412	.9709606
Stddev	.000671	.10403	.0006341	.0002693	.029378	.0016350	.0147030
%RSD	.0600194	.3374767	.5392686	9.098164	1.679749	.7557695	1.514274
#1	1.117534	30.85874	.1169617	.0026612	1.776990	.2169779	.9878920
#2	1.117096	30.70957	.1175677	.0030361	1.751472	.2175621	.9614107
#3	1.118413	30.90976	.1182295	.0031837	1.718397	.2144836	.9635793

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.583749	.1609791	.0039391	.0341636	2.123150	4.200086	1.918607
Stddev	.012776	.0038169	.0002486	.0016338	.002728	.043674	.012230
%RSD	.8066899	2.371072	6.311969	4.782158	.1284865	1.039844	.6374555
#1	1.598499	.1650233	.0037845	.0337518	2.121128	4.250457	1.928589
#2	1.576596	.1604746	.0038069	.0359639	2.122068	4.177034	1.922269
#3	1.576152	.1574396	.0042259	.0327752	2.126253	4.172767	1.904965

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1743-01 Acquired: 4/10/2025 12:29:30 Type: Unk
Method: NON EPA-6010-200.7(v2916) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.393923	.0622192	.1982532
Stddev	.004294	.0003840	.0003514
%RSD	.3080497	.6171741	.1772638
#1	1.392425	.0626444	.1979211
#2	1.390580	.0618978	.1986212
#3	1.398766	.0621154	.1982174

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3322.575	81131.95	15946.78	2166.111	4879.895
Stddev	6.361	1266.26	79.17	37.040	4.330
%RSD	.1914422	1.560740	.4964791	1.709965	.0887405
#1	3329.348	79669.90	15902.17	2123.366	4884.701
#2	3321.649	81877.54	16038.19	2186.207	4878.691
#3	3316.728	81848.41	15899.97	2188.759	4876.295

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1739-01 Acquired: 4/10/2025 12:33:38 Type: Unk
Method: NON EPA-6010-200.7(v2916) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009130	-.005519	.0455140	-.002488	.0020760	3.152453	.2540546
Stddev	.0035372	.003306	.0019689	.002998	.0016015	.013645	.0004121
%RSD	387.4292	59.89975	4.325934	120.4891	77.14167	.4328515	.1622058
#1	.0033148	-.001933	.0447362	-.001106	.0038635	3.137154	.2540213
#2	-.003149	-.006178	.0477530	-.000430	.0007719	3.156839	.2544824
#3	.002573	-.008445	.0440528	-.005927	.0015926	3.163366	.2536602

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010770	-.000678	61.11785	.0143716	.0015404	.0301871	20.22679
Stddev	.0000289	.000129	.21023	.0003225	.0000389	.0002545	.12139
%RSD	2.679191	18.96274	.3439721	2.243837	2.522002	.8429805	.6001261
#1	.0010960	-.000823	60.96775	.0140366	.0014972	.0300942	20.34008
#2	.0010438	-.000576	61.35812	.0146798	.0015516	.0299922	20.09867
#3	.0010913	-.000636	61.02767	.0143984	.0015724	.0304750	20.24163

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.642706	11.37737	.0047816	.0013590	843.7837	.0410811	.0992329
Stddev	.005542	.03184	.0001475	.0002223	6.3244	.0010252	.0005110
%RSD	.3373866	.2798206	3.084322	16.35334	.7495285	2.495443	.5149611
#1	1.639664	11.35753	.0046466	.0015183	847.5205	.0421408	.0986704
#2	1.649104	11.41409	.0047593	.0014537	836.4816	.0400944	.0993600
#3	1.639352	11.36048	.0049390	.0011051	847.3490	.0410083	.0996684

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.92733	.0905783	.0034763	-.001458	.1677936	6.506686	.4772570
Stddev	.07660	.0000842	.0000616	.000696	.0005780	.041549	.0049768
%RSD	.6422551	.0929650	1.773171	47.71914	.3444702	.6385607	1.042798
#1	11.99842	.0904827	.0034121	-.000697	.1672817	6.551716	.4762727
#2	11.84620	.0906414	.0035350	-.001618	.1684205	6.469833	.4728459
#3	11.93736	.0906108	.0034818	-.002061	.1676787	6.498510	.4826525

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1739-01 Acquired: 4/10/2025 12:33:38 Type: Unk
Method: NON EPA-6010-200.7(v2916) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	8.158826	.0038588	.4666544
Stddev	.012643	.0004761	.0008234
%RSD	.1549555	12.33740	.1764366
#1	8.144228	.0034729	.4665804
#2	8.166253	.0043908	.4675123
#3	8.165996	.0037125	.4658706

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2885.034	71279.24	16252.47	1869.448	4166.845
Stddev	5.795	172.42	118.92	8.620	6.220
%RSD	.2008469	.2418887	.7316877	.4611071	.1492821
#1	2891.655	71314.10	16374.32	1878.375	4174.024
#2	2880.888	71431.56	16136.72	1868.796	4163.471
#3	2882.559	71092.06	16246.37	1861.172	4163.042

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1748-04 Acquired: 4/10/2025 12:38:00 Type: Unk
Method: NON EPA-6010-200.7(v2916) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.007469	-.007439	.1681492	.0033203	.0025977	-.024192
Stddev	.000383	.001411	.0010239	.0025644	.0022825	.001767
%RSD	5.123134	18.96122	.6089282	77.23429	87.86569	7.305606
#1	-.007242	-.008600	.1673347	.0013903	.0001877	-.022896
#2	-.007911	-.007848	.1678143	.0023404	.0028788	-.023475
#3	-.007255	-.005869	.1692986	.0062302	.0047267	-.026205

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1268941	-.000160	.0010652	133.9467	.0006112	.0065707
Stddev	.0018759	.000016	.0000783	.7659	.0003699	.0002775
%RSD	1.478284	10.10579	7.351369	.5718262	60.52490	4.223679
#1	.1249894	-.000145	.0010557	133.0767	.0001861	.0067130
#2	.1269530	-.000177	.0009920	134.2439	.0007870	.0062509
#3	.1287398	-.000160	.0011478	134.5195	.0008604	.0067482

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0665040	-.001473	1.090825	3.754902	.0178338	.0006277
Stddev	.0003317	.001834	.007362	.040900	.0002250	.0001141
%RSD	.4987925	124.5049	.6749398	1.089233	1.261828	18.17485
#1	.0662032	-.000047	1.082342	3.707675	.0176301	.0006446
#2	.0668597	-.003541	1.095540	3.778648	.0177960	.0005062
#3	.0664490	-.000830	1.094594	3.778382	.0180754	.0007325

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	358.5701	-.000303	1.443994	3.101039	.0178024	.0009172
Stddev	2.3603	.000568	.003722	.029580	.0002253	.0003626
%RSD	.6582515	187.5900	.2577676	.9538764	1.265765	39.53485
#1	357.8324	-.000395	1.442986	3.082797	.0178468	.0005295
#2	361.2111	.000305	1.448116	3.135168	.0175582	.0009740
#3	356.6667	-.000819	1.440879	3.085152	.0180022	.0012480

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1748-04 Acquired: 4/10/2025 12:38:00 Type: Unk
Method: NON EPA-6010-200.7(v2916) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003412	-.001710	2.231793	.0296628	F 10.04583	-.011553
Stddev	.000786	.000419	.010142	.0019154	.00648	.000615
%RSD	23.04700	24.52083	.4544167	6.457137	.0644868	5.324969
#1	-.003454	-.001317	2.220091	.0285446	10.05173	-.012102
#2	-.002605	-.001663	2.238029	.0318744	10.04686	-.010888
#3	-.004177	-.002152	2.237260	.0285693	10.03890	-.011670

Elem	Sr4077
Units	ppm
Avg	.5077389
Stddev	.0021058
%RSD	.4147403
#1	.5053087
#2	.5088850
#3	.5090231

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2827.284	69972.77	15188.65	1847.351	4350.532
Stddev	3.784	224.17	31.45	10.781	5.569
%RSD	.1338247	.3203669	.2070826	.5835840	.1280053
#1	2824.008	69930.96	15219.18	1835.780	4344.103
#2	2826.419	69772.45	15190.42	1849.159	4353.635
#3	2831.425	70214.90	15156.34	1857.113	4353.858

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1748-08 Acquired: 4/10/2025 12:42:23 Type: Unk
Method: NON EPA-6010-200.7(v2916) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001669	-.006211	.0676200	.0025811	.0015044	.2080882	.4980144
Stddev	.000891	.000466	.0015588	.0025225	.0014506	.0043924	.0023889
%RSD	53.38983	7.498100	2.305262	97.73150	96.42193	2.110843	.4796921
#1	-.002653	-.006565	.0670211	-.000165	.0023690	.2032785	.4990056
#2	-.000916	-.005683	.0664494	.003113	.0023146	.2118870	.4952894
#3	-.001439	-.006384	.0693895	.004795	-.000170	.2090992	.4997481

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001840	-.000730	37.91300	-.000258	.0082313	.0134764	17.51526
Stddev	.0000362	.000016	.20945	.000173	.0000564	.0003232	.10589
%RSD	19.67286	2.168677	.5524616	66.82943	.6845275	2.398220	.6045506
#1	.0002242	-.000713	38.13277	-.000456	.0081663	.0131883	17.55870
#2	.0001739	-.000744	37.89057	-.000138	.0082655	.0138259	17.39456
#3	.0001539	-.000734	37.71567	-.000181	.0082622	.0134151	17.59251

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.967483	1.726018	.0110325	.0011562	345.3503	-.001824	.3551207
Stddev	.005995	.007892	.0002281	.0002163	1.5944	.000691	.0026215
%RSD	.3046927	.4572319	2.067813	18.70946	.4616772	37.87789	.7382022
#1	1.974259	1.735120	.0112642	.0012804	347.1687	-.001064	.3523922
#2	1.962871	1.721861	.0110252	.0012818	344.1918	-.002414	.3576202
#3	1.965320	1.721074	.0108082	.0009064	344.6905	-.001994	.3553499

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.625980	.0768730	-.000327	-.001558	.0060047	1.334742	.0205999
Stddev	.012712	.0003010	.000209	.000988	.0002141	.005351	.0025488
%RSD	.4840828	.3915534	63.89362	63.42169	3.565912	.4008778	12.37277
#1	2.630241	.0766143	-.000498	-.001674	.0057686	1.339532	.0187506
#2	2.611685	.0772033	-.000094	-.002483	.0061863	1.328968	.0195419
#3	2.636014	.0768013	-.000388	-.000517	.0060593	1.335726	.0235073

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1748-08 Acquired: 4/10/2025 12:42:23 Type: Unk
Method: NON EPA-6010-200.7(v2916) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8207269	-.003891	.1841623
Stddev	.0055543	.000253	.0006113
%RSD	.6767548	6.508451	.3319278
#1	.8157179	-.003938	.1838983
#2	.8267002	-.003618	.1837274
#3	.8197626	-.004118	.1848613

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2965.914	72761.00	15245.72	1952.570	4543.259
Stddev	10.109	199.84	114.72	5.099	15.095
%RSD	.3408497	.2746478	.7524585	.2611251	.3322569
#1	2960.364	72533.20	15161.23	1952.594	4533.230
#2	2977.583	72843.04	15199.62	1947.460	4560.620
#3	2959.795	72906.76	15376.32	1957.657	4535.927

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1754-02 Acquired: 4/10/2025 12:46:46 Type: Unk
Method: NON EPA-6010-200.7(v2916) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004048	-.007199	.0458442	.0004847	.0012055	.0209184	.3026898
Stddev	.001160	.001036	.0012642	.0011521	.0001420	.0020815	.0007947
%RSD	28.66234	14.39635	2.757514	237.7029	11.78291	9.950610	.2625532
#1	-.004562	-.008304	.0472916	.0004163	.0013160	.0231277	.3020735
#2	-.004863	-.007044	.0452849	-.000632	.0012550	.0206334	.3035868
#3	-.002720	-.006248	.0449562	.001670	.0010453	.0189941	.3024091

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000047	.0003364	16.39586	.0209237	-.000203	.0169220	.1389557
Stddev	.000015	.0001334	.02189	.0004592	.000116	.0003609	.0054734
%RSD	31.04066	39.65445	.1335000	2.194658	57.07031	2.132801	3.938937
#1	-.000058	.0004389	16.41758	.0204920	-.000077	.0166388	.1332443
#2	-.000031	.0003847	16.39618	.0214062	-.000229	.0173284	.1394677
#3	-.000054	.0001856	16.37381	.0208730	-.000304	.0167987	.1441551

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0211068	.9487980	.0096155	.0004140	242.5437	.0000184	.2215281
Stddev	.0002266	.0087166	.0003895	.0002061	1.7461	.0006358	.0007919
%RSD	1.073504	.9187034	4.051068	49.78827	.7198962	3447.435	.3574517
#1	.0209458	.9561214	.0096365	.0003909	240.8044	.0005102	.2222169
#2	.0210087	.9391567	.0092158	.0006307	242.5303	-.000700	.2206630
#3	.0213659	.9511158	.0099940	.0002204	244.2964	.000245	.2217045

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9694712	.0479812	-.000022	-.001155	.0007840	.7529021	.0875063
Stddev	.0117109	.0013843	.000279	.000219	.0003767	.0065017	.0023452
%RSD	1.207962	2.885143	1250.995	18.92919	48.04710	.8635474	2.680027
#1	.9773139	.0491427	-.000199	-.000956	.0005914	.7524499	.0895623
#2	.9560097	.0483516	-.000167	-.001389	.0012181	.7466383	.0849520
#3	.9750899	.0464494	.000299	-.001119	.0005426	.7596180	.0880046

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1754-02 Acquired: 4/10/2025 12:46:46 Type: Unk
Method: NON EPA-6010-200.7(v2916) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7085559	-.009613	.0934650
Stddev	.0008279	.000056	.0001143
%RSD	.1168493	.5874152	.1222817
#1	.7089024	-.009574	.0933458
#2	.7091543	-.009678	.0934754
#3	.7076110	-.009587	.0935737

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3073.947	74472.23	14909.05	2000.277	4802.876
Stddev	5.426	126.55	43.94	7.295	10.723
%RSD	.1765313	.1699238	.2947094	.3647116	.2232555
#1	3067.714	74561.71	14858.70	2003.765	4794.753
#2	3077.619	74527.52	14928.89	2005.173	4815.030
#3	3076.508	74327.44	14939.58	1991.892	4798.845

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1754-04 Acquired: 4/10/2025 12:51:11 Type: Unk
Method: NON EPA-6010-200.7(v2916) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005385	-.009739	.0038831	.0008727	.0007483	.8891898	.0785454
Stddev	.002157	.002283	.0016313	.0015734	.0016266	.0103315	.0007597
%RSD	40.05236	23.43574	42.01102	180.2899	217.3807	1.161899	.9672155
#1	-.006095	-.007720	.0056554	.0008590	-.000031	.8987562	.0778761
#2	-.002963	-.012216	.0035498	.0024529	-.000342	.8905794	.0793712
#3	-.007097	-.009283	.0024442	-.000694	.002618	.8782339	.0783891

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000070	-.000173	174.5504	.0506444	-.000728	.0015576	.3848007
Stddev	.000018	.000015	.3124	.0006649	.000092	.0004110	.0061249
%RSD	25.49434	8.880960	.1789644	1.312784	12.57536	26.38783	1.591715
#1	-.000058	-.000156	174.2828	.0503366	-.000623	.0010856	.3780172
#2	-.000061	-.000185	174.8937	.0501892	-.000792	.0018370	.3864597
#3	-.000090	-.000178	174.4748	.0514074	-.000769	.0017501	.3899252

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0172485	.5866924	.0001472	.0002753	328.6506	-.000760	.0063102
Stddev	.0002256	.0102573	.0001585	.0000727	1.6344	.000182	.0004099
%RSD	1.307877	1.748325	107.6753	26.41545	.4973091	24.00557	6.495957
#1	.0174788	.5825512	.0000360	.0002566	327.2394	-.000588	.0062150
#2	.0170280	.5983729	.0000770	.0002137	328.2709	-.000951	.0059563
#3	.0172387	.5791532	.0003286	.0003555	330.4414	-.000742	.0067593

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.780777	.0023587	.0026712	-.003726	.0205808	2.991401	.0266972
Stddev	.028766	.0001259	.0000810	.000620	.0008093	.017044	.0030764
%RSD	.7608588	5.336624	3.031491	16.64910	3.932123	.5697517	11.52323
#1	3.771073	.0022314	.0025785	-.004417	.0200118	2.994064	.0239029
#2	3.758117	.0024831	.0027068	-.003216	.0202234	2.973183	.0299938
#3	3.813140	.0023616	.0027283	-.003546	.0215073	3.006957	.0261950

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1754-04 Acquired: 4/10/2025 12:51:11 Type: Unk
Method: NON EPA-6010-200.7(v2916) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	6.359617	-.027305	1.481262
Stddev	.018245	.000503	.010975
%RSD	.2868848	1.842376	.7409005
#1	6.379588	-.026853	1.473670
#2	6.343823	-.027847	1.476270
#3	6.355440	-.027215	1.493845

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2865.171	71853.73	15760.42	1885.774	4401.283
Stddev	5.172	202.17	59.49	6.515	5.708
%RSD	.1805190	.2813606	.3774849	.3454700	.1296820
#1	2870.799	71965.49	15796.33	1889.842	4403.788
#2	2860.627	71975.35	15691.75	1889.219	4394.752
#3	2864.085	71620.36	15793.19	1878.259	4405.310

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1754-01 Acquired: 4/10/2025 12:55:44 Type: Unk
Method: NON EPA-6010-200.7(v2916) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0969117	.0073401	3.468905	-.019729	-.009752	81.26911	1.746116
Stddev	.0058642	.0021032	.004866	.004421	.000689	.08114	.003463
%RSD	6.051114	28.65366	.1402800	22.40722	7.066563	.0998386	.1983506
#1	.0971082	.0081948	3.463288	-.016667	-.010433	81.19899	1.743816
#2	.0909516	.0049441	3.471837	-.024797	-.009055	81.35798	1.750100
#3	.1026752	.0088813	3.471590	-.017723	-.009769	81.25037	1.744434

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0065925	.0004988	32.48540	.2268536	.0952006	.5577304	203.8905
Stddev	.0000924	.0000592	.06842	.0013681	.0006248	.0009212	.3101
%RSD	1.400966	11.86041	.2106114	.6030610	.6563004	.1651745	.1520761
#1	.0066860	.0005555	32.51068	.2268579	.0955617	.5583040	203.5325
#2	.0065901	.0005033	32.53757	.2254834	.0955609	.5582194	204.0694
#3	.0065013	.0004375	32.40793	.2282195	.0944791	.5566678	204.0697

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.492922	19.83206	.1655688	.0077749	.9329442	.2732331	1.162181
Stddev	.019379	.03023	.0002560	.0001299	.0120754	.0015450	.003626
%RSD	.4313219	.1524383	.1546010	1.670867	1.294331	.5654500	.3120349
#1	4.493918	19.85077	.1653119	.0078523	.9207464	.2715683	1.166345
#2	4.511784	19.84823	.1658238	.0078474	.9331929	.2746208	1.159716
#3	4.473064	19.79718	.1655706	.0076249	.9448933	.2735103	1.160482

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.341156	.3095818	.0019059	.6700174	1.770967	7.562334	8.769151
Stddev	.046953	.0012240	.0004911	.0000911	.006321	.083888	.016827
%RSD	.7404483	.3953742	25.76762	.0135948	.3569171	1.109292	.1918889
#1	6.308097	.3091939	.0022507	.6701087	1.766545	7.476063	8.785576
#2	6.320471	.3085987	.0021235	.6700169	1.778206	7.567320	8.751949
#3	6.394900	.3109527	.0013436	.6699266	1.768148	7.643617	8.769927

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1754-01 Acquired: 4/10/2025 12:55:44 Type: Unk
Method: NON EPA-6010-200.7(v2916) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.765399	.1740709	.1733574
Stddev	.002168	.0002211	.0005209
%RSD	.1228275	.1270313	.3004686
#1	1.764703	.1738231	.1729885
#2	1.767830	.1742481	.1739532
#3	1.763665	.1741413	.1731303

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3629.538	88326.74	18936.42	2328.091	4873.909
Stddev	9.539	88.55	71.43	10.766	9.040
%RSD	.2628088	.1002498	.3771930	.4624227	.1854737
#1	3633.397	88313.65	18892.10	2317.906	4879.617
#2	3618.674	88421.11	18898.34	2327.012	4863.486
#3	3636.543	88245.47	19018.82	2339.356	4878.623

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCV03 Acquired: 4/10/2025 12:59:48 Type: Unk
Method: NON EPA-6010-200.7(v2916) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.892151	4.838343	4.736216	4.987317	5.068789	9.939889
Stddev	.012111	.023932	.013040	.009818	.011844	.016842
%RSD	.2475625	.4946365	.2753184	.1968621	.2336660	.1694431
#1	4.892597	4.849772	4.734488	4.996726	5.071679	9.954179
#2	4.879823	4.810839	4.724126	4.977136	5.055767	9.921320
#3	4.904033	4.854419	4.750033	4.988091	5.078920	9.944169

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.10442	.2350868	2.360539	24.20593	1.015656	2.476167
Stddev	.11123	.0011758	.004899	.08049	.001220	.006297
%RSD	1.100820	.5001504	.2075254	.3325103	.1201424	.2543161
#1	10.04158	.2359369	2.360953	24.26794	1.014360	2.476075
#2	10.03883	.2337450	2.355446	24.11497	1.016783	2.469917
#3	10.23285	.2355785	2.365217	24.23487	1.015824	2.482510

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.288120	5.227525	2.367533	23.90134	2.494595	1.266130
Stddev	.002730	.020775	.008643	.11987	.006615	.000748
%RSD	.2119064	.3974248	.3650459	.5015257	.2651803	.0590862
#1	1.286486	5.224786	2.376619	23.96250	2.497049	1.266543
#2	1.286603	5.249534	2.359415	23.76322	2.487104	1.265266
#3	1.291271	5.208254	2.366567	23.97829	2.499633	1.266580

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.29467	2.466949	2.557179	23.28752	F 4.235824	5.015188
Stddev	.10677	.005151	.006139	.11442	.025588	.010892
%RSD	.4394850	.2087880	.2400668	.4913496	.6040790	.2171735
#1	24.26015	2.469846	2.550359	23.29613	4.253893	5.016241
#2	24.41443	2.470000	2.558915	23.39740	4.206544	5.003808
#3	24.20942	2.461002	2.562263	23.16904	4.247036	5.025515

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCV03 Acquired: 4/10/2025 12:59:48 Type: Unk
Method: NON EPA-6010-200.7(v2916) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.794317	4.751049	F 6.663249	4.756902	4.679432	4.761302
Stddev	.015881	.014540	.041293	.028392	.007682	.015056
%RSD	.3312381	.3060470	.6197179	.5968638	.1641742	.3162098
#1	4.798668	4.766822	6.632467	4.749630	4.680703	4.778339
#2	4.776715	4.738180	6.710175	4.732854	4.671193	4.749786
#3	4.807569	4.748145	6.647104	4.788223	4.686399	4.755781

Elem	Sr4077
Units	ppm
Avg	4.905086
Stddev	.039641
%RSD	.8081692
#1	4.944205
#2	4.864942
#3	4.906113

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3129.009	75958.23	15812.63	2014.528	4883.682
Stddev	6.135	114.86	65.73	5.636	11.812
%RSD	.1960640	.1512170	.4156862	.2797672	.2418685
#1	3123.947	75993.26	15755.97	2013.268	4875.635
#2	3135.831	75829.93	15884.70	2009.629	4897.243
#3	3127.247	76051.49	15797.23	2020.688	4878.170

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCB03 Acquired: 4/10/2025 13:04:00 Type: Unk
Method: NON EPA-6010-200.7(v2916) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002176	-.002742	.0002164	-.001377	.0003206	-.003526	-.008480
Stddev	.0036532	.000882	.0006303	.001625	.0014865	.003556	.000510
%RSD	1678.910	32.14287	291.2230	118.0178	463.6889	100.8643	6.009603
#1	.0015610	-.003610	.0006700	-.000198	-.000015	-.005375	-.009017
#2	.0030089	-.002769	-.000503	-.003230	.001946	-.005776	-.008003
#3	-.003917	-.001848	.000483	-.000702	-.000970	.000574	-.008418

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000876	.0000137	-.013731	-.000122	-.000062	-.000128	.0003047
Stddev	.0000161	.0000916	.002156	.000578	.000118	.000142	.0055305
%RSD	18.32895	668.3539	15.70242	475.1866	190.3424	110.6528	1814.799
#1	.0000881	-.000029	-.016201	-.000164	.000052	-.000200	.0066511
#2	.0000713	-.000049	-.012768	-.000678	-.000055	.000035	-.003484
#3	.0001034	.000119	-.012224	.000476	-.000183	-.000219	-.002253

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003251	-.007572	-.000295	.0004616	-.161017	-.001416	-.001899
Stddev	.000469	.011116	.000102	.0000595	.011554	.000539	.000294
%RSD	14.42775	146.7972	34.56648	12.88046	7.175367	38.03983	15.46940
#1	-.003194	-.010793	-.000178	.0003949	-.170806	-.001234	-.001606
#2	-.002813	.004798	-.000368	.0005092	-.148273	-.000991	-.001897
#3	-.003746	-.016722	-.000339	.0004806	-.163973	-.002021	-.002193

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.147871	-.003035	-.000047	-.000494	.0010049	.0005456	-.002258
Stddev	.020409	.000493	.000187	.000340	.0005854	.0019266	.000678
%RSD	13.80198	16.23794	399.9722	68.89447	58.24820	353.1063	30.03660
#1	-.160044	-.002654	-.000003	-.000435	.0016112	-.001532	-.001698
#2	-.124309	-.002859	.000114	-.000860	.0009606	.002272	-.002064
#3	-.159259	-.003591	-.000251	-.000187	.0004430	.000897	-.003012

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCB03 Acquired: 4/10/2025 13:04:00 Type: Unk
Method: NON EPA-6010-200.7(v2916) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000675	-.002424	-.000184
Stddev	.002502	.000505	.000015
%RSD	370.4268	20.83882	8.212679
#1	.000390	-.003003	-.000176
#2	.001117	-.002194	-.000201
#3	-.003534	-.002075	-.000174

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3234.173	78836.15	14929.78	2132.032	5343.439
Stddev	9.900	904.01	44.68	21.858	13.185
%RSD	.3061114	1.146700	.2992913	1.025225	.2467466
#1	3228.574	79879.04	14896.64	2156.752	5339.468
#2	3228.342	78353.79	14980.60	2124.080	5332.696
#3	3245.604	78275.63	14912.10	2115.262	5358.153

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1754-03 Acquired: 4/10/2025 13:07:55 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0365042	-.006803	.1522668	-.028541	.0022720	132.5724
Stddev	.0026383	.001784	.0009579	.003394	.0022782	.3189
%RSD	7.227331	26.22208	.6290909	11.89163	100.2728	.2405774
#1	.0339672	-.006704	.1523399	-.025587	.0048591	132.6831
#2	.0363121	-.005070	.1531861	-.027788	.0013916	132.2129
#3	.0392332	-.008634	.1512745	-.032248	.0005654	132.8213

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6516183	.0053299	-.002726	931.6813	.1628689	.0707356
Stddev	.0036514	.0000269	.000039	10.2009	.0000598	.0005481
%RSD	.5603562	.5053762	1.431201	1.094894	.0366930	.7747941
#1	.6526080	.0053559	-.002682	933.2137	.1628560	.0713290
#2	.6475741	.0053021	-.002754	920.8009	.1628166	.0702484
#3	.6546729	.0053317	-.002743	941.0293	.1629340	.0706294

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2752183	163.2640	3.135728	55.06156	.1740218	.0062503
Stddev	.0003501	.3165	.028162	.41821	.0003596	.0002043
%RSD	.1272098	.1938580	.8980858	.7595346	.2066584	3.268799
#1	.2756166	163.3781	3.143391	55.08582	.1744340	.0063553
#2	.2749593	162.9063	3.104529	54.63174	.1738591	.0063807
#3	.2750791	163.5076	3.159266	55.46711	.1737723	.0060148

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.47139	.2664870	.3103771	39.84601	.3964513	.0023395
Stddev	.05011	.0007905	.0019846	.15641	.0009382	.0002126
%RSD	.4367859	.2966459	.6394252	.3925257	.2366510	9.087554
#1	11.44754	.2658246	.3108659	39.79050	.3960278	.0023162
#2	11.52897	.2662741	.3120716	40.02260	.3957996	.0021395
#3	11.43768	.2673621	.3081937	39.72493	.3975266	.0025628

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1754-03 Acquired: 4/10/2025 13:07:55 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0020775	5.507309	8.296443	7.114095	F 11.03854	.0206568
Stddev	.0000844	.027336	.031939	.034230	.04792	.0017268
%RSD	4.064518	.4963504	.3849769	.4811570	.4340821	8.359661
#1	.0021718	5.510962	8.284701	7.122399	11.06361	.0211520
#2	.0020091	5.478331	8.332592	7.143408	11.06871	.0220820
#3	.0020516	5.532635	8.272037	7.076476	10.98329	.0187365

Elem	Sr4077
Units	ppm
Avg	5.493578
Stddev	.116150
%RSD	2.114279
#1	5.527488
#2	5.364247
#3	5.588998

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2981.110	72712.32	16149.95	1960.662	4030.367
Stddev	6.637	102.59	132.68	2.874	10.282
%RSD	.2226443	.1410908	.8215493	.1465704	.2551144
#1	2983.636	72654.74	16124.73	1957.989	4028.912
#2	2973.581	72830.77	16293.43	1963.701	4020.890
#3	2986.114	72651.46	16031.69	1960.297	4041.300

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1754-03DUP Acquired: 4/10/2025 13:12:19 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0357461	-.008958	.1526581	-.024046	.0027478	132.5667
Stddev	.0037934	.001274	.0042131	.002560	.0007298	.5138
%RSD	10.61195	14.21623	2.759832	10.64812	26.55795	.3876149
#1	.0371535	-.010420	.1574683	-.027002	.0020935	132.9195
#2	.0314502	-.008086	.1496233	-.022505	.0026150	132.8035
#3	.0386347	-.008369	.1508826	-.022632	.0035347	131.9772

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6459381	.0053751	-.002631	933.1039	.1646515	.0706502
Stddev	.0026070	.0000527	.000115	13.6958	.0003835	.0001818
%RSD	.4035953	.9812449	4.384775	1.467772	.2329399	.2573336
#1	.6456453	.0053913	-.002529	923.3208	.1647480	.0708283
#2	.6486792	.0053161	-.002756	948.7562	.1642289	.0706574
#3	.6434900	.0054178	-.002610	927.2347	.1649775	.0704649

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2742597	163.8660	3.108428	55.04140	.1744928	.0063486
Stddev	.0014176	.1560	.010568	.14402	.0005816	.0003141
%RSD	.5168962	.0952264	.3399627	.2616547	.3333230	4.947201
#1	.2740417	163.7815	3.103937	54.93271	.1739027	.0067031
#2	.2757737	164.0461	3.120499	55.20475	.1750656	.0062377
#3	.2729637	163.7705	3.100847	54.98675	.1745101	.0061050

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.59738	.2658227	.3119818	39.99986	.3959690	.0020202
Stddev	.02416	.0022236	.0006591	.06001	.0009088	.0005216
%RSD	.2082990	.8364948	.2112514	.1500144	.2295129	25.81878
#1	11.61558	.2647181	.3112445	39.99437	.3964545	.0016196
#2	11.60659	.2683823	.3125136	40.06242	.3965320	.0026100
#3	11.56997	.2643677	.3121875	39.94279	.3949206	.0018310

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1754-03DUP Acquired: 4/10/2025 13:12:19 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0035057	5.484546	8.514816	7.081342	F 10.97772	.0202506
Stddev	.0013604	.020863	.038040	.009981	.02329	.0017410
%RSD	38.80396	.3804047	.4467532	.1409485	.2121968	8.597168
#1	.0024712	5.484830	8.544197	7.088603	10.95381	.0217343
#2	.0029993	5.505266	8.471848	7.069961	10.97901	.0183340
#3	.0050467	5.463542	8.528403	7.085463	11.00035	.0206834

Elem	Sr4077
Units	ppm
Avg	5.507559
Stddev	.088484
%RSD	1.606586
#1	5.578796
#2	5.535369
#3	5.408511

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2961.376	71899.80	16161.90	1931.673	4024.419
Stddev	2.549	173.55	62.84	5.830	3.188
%RSD	.0860879	.2413783	.3888036	.3018318	.0792186
#1	2962.997	72075.26	16195.06	1925.667	4026.662
#2	2958.438	71728.22	16089.43	1932.043	4020.769
#3	2962.694	71895.92	16201.22	1937.310	4025.824

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1754-03LX5 Acquired: 4/10/2025 13:16:41 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0038112	-.002763	.0306055	-.011650	-.002003	27.91626	.1203974
Stddev	.0016151	.000527	.0018665	.002028	.000728	.10512	.0012442
%RSD	42.37779	19.06767	6.098558	17.40358	36.35996	.3765698	1.033412
#1	.0053605	-.003157	.0320069	-.013490	-.001188	28.03570	.1218311
#2	.0021374	-.002968	.0284868	-.009476	-.002230	27.87531	.1196005
#3	.0039357	-.002165	.0313228	-.011984	-.002591	27.83778	.1197605

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013346	-.000806	203.2928	.0355586	.0141737	.0638923	30.45526
Stddev	.0000796	.000071	.7837	.0003177	.0000915	.0000781	.14620
%RSD	5.967040	8.856277	.3855017	.8935379	.6454019	.1222783	.4800552
#1	.0012969	-.000887	204.1670	.0352587	.0140816	.0638194	30.34043
#2	.0012808	-.000753	202.6531	.0358916	.0142646	.0639748	30.61985
#3	.0014261	-.000778	203.0584	.0355254	.0141750	.0638828	30.40549

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6833721	12.03412	.0353435	.0010650	1.874172	.0571271	.0636998
Stddev	.0029675	.06958	.0001625	.0001424	.024191	.0013015	.0005246
%RSD	.4342381	.5782053	.4597677	13.37390	1.290733	2.278293	.8235827
#1	.6861240	12.10262	.0355018	.0011934	1.861497	.0586281	.0631250
#2	.6802281	11.96350	.0353515	.0009118	1.902066	.0564406	.0638215
#3	.6837642	12.03623	.0351771	.0010898	1.858953	.0563125	.0641529

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.481377	.0721915	.0004066	-.004508	1.178967	1.553171	1.355197
Stddev	.031047	.0004035	.0003017	.000317	.007460	.007803	.006992
%RSD	.4790153	.5589586	74.19556	7.026393	.6327283	.5024138	.5159454
#1	6.462577	.0726480	.0006840	-.004413	1.187581	1.555928	1.347943
#2	6.517212	.0720443	.0000854	-.004861	1.174624	1.544363	1.355754
#3	6.464342	.0718823	.0004504	-.004250	1.174697	1.559221	1.361894

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1754-03LX5 Acquired: 4/10/2025 13:16:41 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.082080	-.002710	1.141462
Stddev	.004215	.001010	.014580
%RSD	.2024526	37.27686	1.277335
#1	2.077280	-.003065	1.153908
#2	2.085176	-.003495	1.125420
#3	2.083786	-.001570	1.145057

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3040.778	74654.48	13926.97	1986.081	4649.262
Stddev	6.789	440.70	59.85	9.658	10.700
%RSD	.2232700	.5903129	.4297288	.4862753	.2301435
#1	3045.899	75163.05	13893.96	1997.159	4658.138
#2	3043.359	74385.16	13996.05	1979.437	4652.266
#3	3033.077	74415.22	13890.89	1981.646	4637.381

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1754-03A Acquired: 4/10/2025 13:29:40 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7604654	1.730631	1.021775	1.722692	.7461294	133.7819
Stddev	.0088386	.018328	.003926	.011819	.0050413	.7121
%RSD	1.162266	1.059062	.3842789	.6860774	.6756608	.5322708
#1	.7568982	1.712280	1.020360	1.710646	.7422118	133.1213
#2	.7539678	1.730677	1.018753	1.723158	.7443593	133.6884
#3	.7705302	1.748937	1.026213	1.734270	.7518170	134.5362

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7981671	.1638248	.1802954	929.6730	.5000912	.2549558
Stddev	.0032452	.0004687	.0017601	8.3884	.0006802	.0021778
%RSD	.4065761	.2861043	.9762405	.9022947	.1360119	.8541668
#1	.7944967	.1633649	.1790277	925.9078	.4993829	.2533570
#2	.8006561	.1638077	.1795535	923.8269	.5007393	.2540742
#3	.7993484	.1643018	.1823050	939.2843	.5001515	.2574361

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5258475	155.5728	3.261713	56.81695	.6296309	.0752627
Stddev	.0029323	.2963	.012773	.18599	.0050726	.0004991
%RSD	.5576272	.1904756	.3915956	.3273582	.8056451	.6631981
#1	.5249942	155.5867	3.248849	56.60663	.6258506	.0748033
#2	.5234366	155.8620	3.274392	56.88444	.6276464	.0751911
#3	.5291118	155.2698	3.261898	56.95978	.6353958	.0757938

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.87821	.5087497	.4890540	47.25378	.5926228	.3574507
Stddev	.04528	.0041499	.0006360	.06733	.0013004	.0012227
%RSD	.3262463	.8156988	.1300574	.1424883	.2194284	.3420678
#1	13.84044	.5039723	.4884994	47.17742	.5918999	.3571757
#2	13.86581	.5114599	.4897483	47.30462	.5918446	.3563890
#3	13.92840	.5108170	.4889143	47.27930	.5941241	.3587876

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1754-03A Acquired: 4/10/2025 13:29:40 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6491773	5.602191	9.555572	F 13.01928	F 10.86209	.1979933
Stddev	.0038727	.022388	.057303	.10184	.07381	.0010198
%RSD	.5965528	.3996314	.5996806	.7822139	.6794937	.5150839
#1	.6474472	5.576722	9.497132	12.94150	10.81296	.1974672
#2	.6464713	5.611088	9.557918	12.98180	10.82635	.1991687
#3	.6536135	5.618764	9.611665	13.13455	10.94696	.1973439

Elem	Sr4077
Units	ppm
Avg	5.523581
Stddev	.072608
%RSD	1.314509
#1	5.489513
#2	5.606958
#3	5.474271

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2968.349	72181.27	15052.98	1940.100	4015.536
Stddev	12.422	25.68	36.42	7.934	24.042
%RSD	.4184935	.0355770	.2419671	.4089300	.5987144
#1	2978.656	72201.90	15090.86	1948.283	4035.441
#2	2971.834	72189.40	15049.87	1939.575	4022.342
#3	2954.556	72152.51	15018.21	1932.442	3988.825

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1715-01DUP Acquired: 4/10/2025 13:33:56 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000556	-.008979	-.000925	.0043815	-.002889	16.49535
Stddev	.001456	.001012	.000880	.0015784	.002387	.02163
%RSD	262.0591	11.27639	95.06192	36.02562	82.61202	.1311169
#1	-.001290	-.008392	-.000173	.0049076	-.004357	16.51691
#2	.001121	-.010148	-.001893	.0056296	-.004176	16.49547
#3	-.001498	-.008397	-.000710	.0026071	-.000135	16.47366

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.009467	-.000060	-.000224	10.23837	.9480934	.0102482
Stddev	.000226	.000063	.000147	.04653	.0022108	.0001009
%RSD	2.387814	104.6281	65.60223	.4544432	.2331859	.9848316
#1	-.009209	-.000037	-.000311	10.27355	.9468355	.0103035
#2	-.009631	-.000012	-.000054	10.25595	.9506461	.0101317
#3	-.009560	-.000131	-.000306	10.18562	.9467985	.0103094

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0211439	.5230362	.0119327	2.232853	.0371260	.0004421
Stddev	.0003876	.0037059	.0003124	.007037	.0003425	.0001233
%RSD	1.833099	.7085363	2.618018	.3151382	.9225378	27.89720
#1	.0215429	.5201733	.0121919	2.240882	.0369353	.0005775
#2	.0207689	.5217134	.0120203	2.229919	.0369213	.0004126
#3	.0211198	.5272220	.0115858	2.227758	.0375214	.0003362

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 1845.649	-.000450	1.244628	185.3652	5.833027	.0411036
Stddev	12.755	.001616	.006527	1.3927	.041642	.0001553
%RSD	.6910667	359.4553	.5244000	.7513134	.7138999	.3778720
#1	1856.876	-.002129	1.249912	185.3057	5.845383	.0412824
#2	1848.289	.001095	1.246642	184.0032	5.867092	.0410256
#3	1831.780	-.000315	1.237332	186.7867	5.786605	.0410027

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1715-01DUP Acquired: 4/10/2025 13:33:56 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0391927	.0017970	.7682323	5.319044	F 836.2307	-.001166
Stddev	.0004737	.0003590	.0076720	.003374	2.1030	.000335
%RSD	1.208574	19.97606	.9986588	.0634248	.2514874	28.68890
#1	.0387540	.0016338	.7698012	5.317007	838.5175	-.001302
#2	.0391290	.0022086	.7598971	5.317188	834.3798	-.000785
#3	.0396950	.0015487	.7749986	5.322938	835.7947	-.001411

Elem	Sr4077
Units	ppm
Avg	.0453370
Stddev	.0002221
%RSD	.4898769
#1	.0455490
#2	.0451060
#3	.0453561

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2651.582	63643.03	13451.62	1714.613	3854.416
Stddev	7.188	101.50	99.71	10.233	7.718
%RSD	.2710955	.1594786	.7412671	.5968259	.2002442
#1	2658.234	63585.00	13373.11	1703.387	3862.701
#2	2643.956	63760.23	13417.94	1723.421	3853.118
#3	2652.557	63583.86	13563.81	1717.030	3847.429

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1715-01LX5 Acquired: 4/10/2025 13:38:17 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003485	-.003793	-.001514	-.001568	-.001452	3.325653
Stddev	.0019904	.000976	.001046	.000964	.001103	.010394
%RSD	571.1585	25.73355	69.05894	61.49269	75.98451	.3125548
#1	.0025081	-.004364	-.000787	-.000456	-.001509	3.333058
#2	-.001412	-.004349	-.001043	-.002089	-.000321	3.330131
#3	-.000050	-.002666	-.002712	-.002160	-.002525	3.313770

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.011263	-.000041	-.000170	2.118751	.1944825	.0016630
Stddev	.000666	.000043	.000066	.006203	.0003974	.0003869
%RSD	5.912923	105.9071	38.53198	.2927855	.2043324	23.26189
#1	-.011676	-.000058	-.000245	2.115321	.1947451	.0019736
#2	-.010495	.000008	-.000124	2.115019	.1940254	.0017857
#3	-.011618	-.000073	-.000141	2.125912	.1946772	.0012297

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0043826	.1102356	.0000833	.4590098	.0072149	.0005846
Stddev	.0001967	.0030422	.0002400	.0056678	.0002211	.0001590
%RSD	4.488253	2.759717	288.0652	1.234777	3.064522	27.19983
#1	.0042827	.1067994	.0003377	.4655334	.0069623	.0005213
#2	.0046092	.1113218	.0000514	.4562004	.0073089	.0007655
#3	.0042559	.1125856	-.000139	.4552955	.0073734	.0004670

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	420.1929	-.001398	.2428415	37.83285	1.196743	.0078096
Stddev	2.2153	.000945	.0004437	.07044	.002888	.0000421
%RSD	.5272171	67.61129	.1827078	.1861973	.2413066	.5395924
#1	418.5407	-.002489	.2433233	37.87872	1.193750	.0078183
#2	422.7102	-.000852	.2427516	37.75174	1.199512	.0077638
#3	419.3277	-.000852	.2424497	37.86809	1.196968	.0078467

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1715-01LX5 Acquired: 4/10/2025 13:38:17 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0071603	.0016313	.1707250	.9914009	F 192.0485	.0048801
Stddev	.0005157	.0000851	.0011849	.0034099	1.3237	.0008097
%RSD	7.201845	5.217004	.6940588	.3439442	.6892391	16.59213
#1	.0071346	.0015851	.1706764	.9930494	193.3545	.0056968
#2	.0076883	.0015792	.1695651	.9936733	192.0830	.0040776
#3	.0066579	.0017295	.1719335	.9874800	190.7079	.0048659

Elem	Sr4077
Units	ppm
Avg	.0093607
Stddev	.0000567
%RSD	.6058527
#1	.0093015
#2	.0094146
#3	.0093661

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2941.862	70862.32	15842.39	1901.641	4502.864
Stddev	15.864	151.74	50.00	10.412	19.916
%RSD	.5392365	.2141351	.3155949	.5475202	.4423056
#1	2925.555	70995.91	15898.63	1912.820	4484.128
#2	2942.789	70893.72	15802.97	1892.219	4500.682
#3	2957.242	70697.34	15825.58	1899.885	4523.781

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1745-04 Acquired: 4/10/2025 13:42:39 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.008113	-.007856	.3491737	.0024441	.0023363	.0184489	.3488877
Stddev	.002191	.002048	.0003568	.0017792	.0012577	.0006032	.0035717
%RSD	27.00165	26.07320	.1021707	72.79482	53.83390	3.269397	1.023741
#1	-.008604	-.006172	.3489358	.0006857	.0036015	.0191252	.3479322
#2	-.010016	-.010136	.3495839	.0042433	.0023211	.0182546	.3528400
#3	-.005718	-.007260	.3490014	.0024033	.0010862	.0179668	.3458909

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000207	.0049639	24.65675	-.000565	.0072588	3.234120	.0740941
Stddev	.0000236	.0000958	.21643	.000044	.0002479	.012305	.0026887
%RSD	114.3184	1.930421	.8777811	7.840456	3.415349	.3804874	3.628746
#1	-.000006	.0049084	24.66507	-.000609	.0069840	3.221612	.0769519
#2	.000031	.0049087	24.86891	-.000565	.0074656	3.246213	.0737160
#3	.000037	.0050745	24.43628	-.000521	.0073268	3.234535	.0716145

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7007293	1.432744	.0573981	.0004870	323.3304	-.001213	4.215091
Stddev	.0058971	.015588	.0002250	.0003410	4.7303	.001469	.009331
%RSD	.8415690	1.087995	.3920460	70.00639	1.462994	121.0446	.2213652
#1	.6990403	1.445234	.0572946	.0007173	317.9052	.000410	4.218086
#2	.7072866	1.437723	.0572433	.0006485	325.4942	-.002451	4.204631
#3	.6958609	1.415274	.0576562	.0000953	326.5919	-.001599	4.222557

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.489369	.0448351	-.000743	.0008751	.0007620	.6181892	.0029093
Stddev	.021234	.0009721	.000338	.0008852	.0001349	.0032968	.0017302
%RSD	1.425709	2.168263	45.56966	101.1546	17.70237	.5333028	59.47360
#1	1.465200	.0452531	-.000778	.0014414	.0009142	.6180879	.0016842
#2	1.497879	.0455284	-.000388	-.000145	.0007149	.6149442	.0021550
#3	1.505028	.0437239	-.001062	.001329	.0006570	.6215355	.0048886

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1745-04 Acquired: 4/10/2025 13:42:39 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8978479	-.004534	.1202925
Stddev	.0067091	.000148	.0011879
%RSD	.7472401	3.257965	.9875483
#1	.8901135	-.004608	.1198088
#2	.9020976	-.004630	.1216460
#3	.9013326	-.004364	.1194228

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2973.053	72223.64	14306.26	1959.118	4584.181
Stddev	10.360	139.26	126.59	7.381	16.922
%RSD	.3484600	.1928157	.8848248	.3767259	.3691386
#1	2981.763	72213.88	14245.85	1957.335	4603.417
#2	2961.596	72367.52	14221.19	1967.226	4571.592
#3	2975.799	72089.51	14451.73	1952.792	4577.534

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1745-12 Acquired: 4/10/2025 13:47:02 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.007139	-.007113	.1770749	.0025860	.0026521	-.008568	.1534269
Stddev	.003270	.001181	.0015723	.0019072	.0014447	.007171	.0010902
%RSD	45.79933	16.60093	.8879214	73.75344	54.47585	83.68890	.7105403
#1	-.009721	-.006408	.1780081	.0009315	.0009899	-.002300	.1534540
#2	-.008234	-.008476	.1779569	.0021544	.0033602	-.016387	.1545032
#3	-.003463	-.006455	.1752596	.0046720	.0036061	-.007017	.1523234

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000121	.0022175	98.29282	.0060345	.0105148	.0581473	.1533704
Stddev	.000017	.0001190	.16192	.0003555	.0002165	.0005300	.0019987
%RSD	14.24549	5.366553	.1647280	5.890801	2.058995	.9115360	1.303163
#1	-.000124	.0020841	98.11032	.0057854	.0102770	.0581401	.1540800
#2	-.000137	.0023128	98.41924	.0064416	.0107004	.0586809	.1549174
#3	-.000103	.0022555	98.34891	.0058766	.0105671	.0576209	.1511137

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.203075	3.060189	.0755974	.0001906	380.4688	-.000870	1.230968
Stddev	.004302	.033534	.0005691	.0002757	.3989	.002181	.002230
%RSD	.3576087	1.095803	.7528448	144.6488	.1048380	250.6874	.1811807
#1	1.199227	3.030836	.0759097	-.000111	380.0569	-.000862	1.229039
#2	1.207720	3.052996	.0759422	.000253	380.4964	-.003055	1.233410
#3	1.202278	3.096736	.0749405	.000430	380.8532	.001307	1.230454

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.282840	.0569115	.0002953	-.004274	-.001535	.9807150	.0033474
Stddev	.049390	.0008449	.0001764	.000671	.000452	.0079264	.0019353
%RSD	.6781722	1.484645	59.74706	15.70110	29.48085	.8082315	57.81370
#1	7.305061	.0578349	.0004340	-.005000	-.001813	.9857032	.0017908
#2	7.317216	.0561770	.0003551	-.003677	-.001013	.9848667	.0027372
#3	7.226243	.0567226	.0000967	-.004145	-.001778	.9715751	.0055142

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1745-12 Acquired: 4/10/2025 13:47:02 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	8.407517	.0268069	.3557818
Stddev	.021464	.0011680	.0006439
%RSD	.2552929	4.357176	.1809804
#1	8.426101	.0281531	.3563051
#2	8.412426	.0260615	.3559775
#3	8.384024	.0262063	.3550628

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2928.747	72308.85	14553.37	1950.440	4452.487
Stddev	6.150	32.10	34.04	7.980	10.499
%RSD	.2099891	.0443910	.2338798	.4091247	.2357947
#1	2924.604	72343.25	14561.29	1946.141	4446.200
#2	2925.824	72303.58	14582.75	1945.531	4446.654
#3	2935.814	72279.71	14516.07	1959.647	4464.607

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCV04 Acquired: 4/10/2025 13:51:25 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.875554	4.979611	4.762253	4.959153	5.043739	9.988176
Stddev	.021413	.031229	.010380	.013895	.008710	.015243
%RSD	.4391835	.6271396	.2179662	.2801878	.1726850	.1526073
#1	4.882252	4.944104	4.755172	4.954726	5.038977	9.998552
#2	4.851593	4.991912	4.757418	4.948011	5.038450	9.970676
#3	4.892816	5.002815	4.774168	4.974722	5.053792	9.995301

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.603583	.2389479	2.377172	24.16086	1.024853	2.488995
Stddev	.031214	.0008488	.006474	.09195	.003535	.006088
%RSD	.3250219	.3552440	.2723601	.3805863	.3449733	.2445829
#1	9.581681	.2393370	2.375409	24.25398	1.021163	2.490728
#2	9.589745	.2379742	2.371761	24.07012	1.025185	2.482229
#3	9.639324	.2395324	2.384345	24.15847	1.028210	2.494029

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.290233	4.982074	2.377575	24.41826	2.504217	1.274795
Stddev	.003713	.020752	.012668	.07881	.006491	.002321
%RSD	.2878074	.4165306	.5328214	.3227299	.2591953	.1820583
#1	1.292210	4.961969	2.390148	24.39995	2.503511	1.272463
#2	1.285949	5.003417	2.364813	24.35021	2.498108	1.277105
#3	1.292539	4.980837	2.377762	24.50460	2.511032	1.274818

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.42188	2.452780	2.567442	25.35928	4.792520	5.030539
Stddev	.12313	.010518	.006251	.06483	.029760	.013853
%RSD	.4660248	.4288042	.2434542	.2556389	.6209654	.2753697
#1	26.35951	2.459517	2.571466	25.33035	4.811325	5.030369
#2	26.56372	2.440660	2.570619	25.43354	4.758209	5.016773
#3	26.34242	2.458162	2.560241	25.31396	4.808026	5.044476

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCV04 Acquired: 4/10/2025 13:51:25 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.846730	4.681728	F 5.983082	4.915531	4.742605	4.677474
Stddev	.014895	.009377	.048700	.006597	.018935	.012185
%RSD	.3073239	.2002829	.8139626	.1342095	.3992508	.2605005
#1	4.839076	4.692480	5.929066	4.914587	4.730197	4.688623
#2	4.837218	4.675247	5.996545	4.909457	4.733220	4.679333
#3	4.863896	4.677457	6.023634	4.922549	4.764400	4.664467

Elem	Sr4077
Units	ppm
Avg	4.698606
Stddev	.018104
%RSD	.3853030
#1	4.712891
#2	4.704681
#3	4.678246

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3135.616	75100.96	13895.98	2021.083	4873.627
Stddev	8.532	155.83	68.17	4.989	10.666
%RSD	.2721042	.2074888	.4905717	.2468357	.2188596
#1	3129.462	75264.61	13854.35	2015.507	4867.838
#2	3145.356	75083.89	13974.65	2022.620	4885.936
#3	3132.030	74954.37	13858.94	2025.122	4867.106

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCB04 Acquired: 4/10/2025 13:55:35 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0022062	-.001282	-.000145	-.002847	.0000276	-.004866	-.008262
Stddev	.0005662	.000758	.000332	.000136	.0020444	.003110	.000550
%RSD	25.66338	59.11046	228.8995	4.764205	7418.810	63.91271	6.651056
#1	.0015524	-.000487	-.000006	-.002830	.0023514	-.001488	-.008829
#2	.0025324	-.001996	.000095	-.002720	-.000775	-.005500	-.007732
#3	.0025338	-.001362	-.000524	-.002990	-.001494	-.007610	-.008227

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000468	.0000105	-.017397	.0000700	-.000002	.0000692	-.006876
Stddev	.0000233	.0000607	.005989	.0001029	.000200	.0000890	.004667
%RSD	49.79965	579.2829	34.42307	147.0358	8033.362	128.6063	67.87367
#1	.0000614	.0000805	-.011240	-.000047	.000181	.0000148	-.008169
#2	.0000199	-.000028	-.023201	.000112	.000027	.0000209	-.010760
#3	.0000591	-.000021	-.017750	.000145	-.000216	.0001720	-.001699

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003636	-.016177	-.000288	.0007468	.0030245	-.001646	-.002024
Stddev	.000120	.012332	.000025	.0002937	.0021971	.001257	.000058
%RSD	3.291854	76.23175	8.840193	39.32008	72.64303	76.37534	2.851549
#1	-.003541	-.026898	-.000259	.0009367	.0045106	-.000257	-.001972
#2	-.003598	-.018931	-.000308	.0004086	.0005008	-.002705	-.002086
#3	-.003770	-.002700	-.000297	.0008951	.0040622	-.001976	-.002014

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.093940	-.001696	.0002482	-.000681	.0018172	.0074351	-.001894
Stddev	.028683	.000407	.0000569	.000426	.0003185	.0087410	.002712
%RSD	30.53270	23.99789	22.91438	62.64281	17.52543	117.5649	143.2114
#1	-.126844	-.002119	.0001865	-.000444	.0015597	.0173462	-.003285
#2	-.074219	-.001663	.0002596	-.000425	.0021734	.0041326	.001232
#3	-.080758	-.001307	.0002985	-.001173	.0017186	.0008264	-.003628

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCB04 Acquired: 4/10/2025 13:55:35 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0044712	-.001779	-.000222
Stddev	.0029106	.000429	.000048
%RSD	65.09599	24.14204	21.44138
#1	.0074486	-.002045	-.000197
#2	.0043327	-.001283	-.000278
#3	.0016324	-.002007	-.000193

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3237.444	77585.93	15167.90	2084.352	5421.033
Stddev	2.556	264.39	38.30	13.112	7.747
%RSD	.0789385	.3407740	.2524865	.6290674	.1429064
#1	3235.749	77353.56	15124.38	2083.858	5417.795
#2	3240.383	77873.59	15196.46	2097.703	5429.874
#3	3236.199	77530.63	15182.87	2071.493	5415.431

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1715-01MS Acquired: 4/10/2025 13:59:55 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7364156	1.532758	.7835984	1.931032	.5618590	17.74489
Stddev	.0040801	.014362	.0025428	.006108	.0041439	.01393
%RSD	.5540423	.9369950	.3245073	.3163181	.7375267	.0784954
#1	.7372461	1.549040	.7808507	1.931383	.5628436	17.74933
#2	.7319841	1.521892	.7858687	1.924756	.5573115	17.72929
#3	.7400165	1.527340	.7840758	1.936957	.5654219	17.75606

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1456819	.1415568	.1709481	10.78888	1.238268	.1809785
Stddev	.0013062	.0002919	.0001621	.03928	.005590	.0010721
%RSD	.8966028	.2062308	.0948275	.3641206	.4514402	.5923816
#1	.1446298	.1417827	.1708421	10.74414	1.242811	.1803980
#2	.1452721	.1416606	.1708675	10.81773	1.239969	.1803218
#3	.1471439	.1412272	.1711347	10.80478	1.232025	.1822156

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2596378	3.345660	.1715771	3.646682	.4629158	.0703737
Stddev	.0023724	.032374	.0007250	.033125	.0007766	.0006234
%RSD	.9137281	.9676386	.4225327	.9083490	.1677565	.8858332
#1	.2589863	3.308625	.1708322	3.609277	.4634547	.0700701
#2	.2576592	3.359776	.1716186	3.658463	.4620257	.0710907
#3	.2622679	3.368579	.1722804	3.672305	.4632670	.0699603

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 1896.988	.2403410	1.368096	200.5823	5.490068	.3081928
Stddev	9.041	.0023107	.008677	.7434	.006961	.0016007
%RSD	.4765953	.9614423	.6342617	.3706427	.1267932	.5193710
#1	1886.563	.2407060	1.358258	199.8521	5.495454	.3080761
#2	1902.670	.2424474	1.371368	200.5565	5.482207	.3066537
#3	1901.732	.2378694	1.374661	201.3383	5.492541	.3098487

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1715-01MS Acquired: 4/10/2025 13:59:55 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4839587	.1214783	1.394477	F 10.75191	F 817.7367	.1808592
Stddev	.0007663	.0004799	.007993	.04789	2.0956	.0009515
%RSD	.1583459	.3950360	.5731573	.4454290	.2562712	.5261123
#1	.4848322	.1218789	1.385291	10.77075	819.4724	.1807332
#2	.4833993	.1209465	1.398291	10.69746	815.4087	.1799769
#3	.4836447	.1216096	1.399848	10.78752	818.3290	.1818674

Elem	Sr4077
Units	ppm
Avg	.2064297
Stddev	.0008341
%RSD	.4040491
#1	.2057627
#2	.2061616
#3	.2073649

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2674.416	65014.18	14301.12	1720.102	3873.812
Stddev	12.822	85.72	44.78	7.993	10.226
%RSD	.4794317	.1318443	.3131527	.4646882	.2639753
#1	2667.981	64916.93	14254.64	1729.133	3868.881
#2	2689.181	65046.86	14304.72	1717.235	3885.569
#3	2666.086	65078.76	14343.99	1713.938	3866.985

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1715-01MSD Acquired: 4/10/2025 14:07:00 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7265332	1.512685	.7846566	1.904253	.5515046	17.63978
Stddev	.0061081	.016386	.0044277	.003255	.0025573	.02619
%RSD	.8407218	1.083224	.5642845	.1709121	.4636884	.1484777
#1	.7209149	1.503338	.7828572	1.902414	.5499347	17.65516
#2	.7330349	1.503111	.7814120	1.902334	.5501237	17.60954
#3	.7256497	1.531605	.7897008	1.908011	.5544555	17.65463

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1479587	.1461069	.1706990	10.81071	1.239303	.1808120
Stddev	.0015439	.0005859	.0009793	.04654	.003526	.0007001
%RSD	1.043440	.4010153	.5737175	.4305022	.2844907	.3871855
#1	.1463888	.1454305	.1699833	10.76496	1.237153	.1801456
#2	.1480121	.1464571	.1702986	10.80915	1.243372	.1807489
#3	.1494752	.1464331	.1718150	10.85800	1.237385	.1815415

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2589951	3.335575	.1716173	3.658208	.4621891	.0704360
Stddev	.0014052	.004379	.0005559	.019359	.0019314	.0002692
%RSD	.5425618	.1312916	.3239261	.5291831	.4178807	.3821521
#1	.2584575	3.340021	.1720853	3.652233	.4605051	.0706496
#2	.2579380	3.331266	.1710028	3.679849	.4617648	.0705246
#3	.2605897	3.335438	.1717637	3.642540	.4642973	.0701337

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 1863.082	.2422608	1.365320	197.7329	5.633063	.3064643
Stddev	2.998	.0010917	.009597	.1474	.024008	.0011363
%RSD	.1609148	.4506423	.7029081	.0745648	.4261932	.3707684
#1	1863.608	.2421440	1.359647	197.6806	5.616272	.3054364
#2	1859.855	.2434063	1.376401	197.6188	5.660562	.3062720
#3	1865.782	.2412322	1.359914	197.8994	5.622356	.3076844

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1715-01MSD Acquired: 4/10/2025 14:07:00 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4815134	.1216073	1.356323	F 10.84543	F 819.2797	.1801431
Stddev	.0016710	.0006348	.007604	.06321	3.8290	.0008685
%RSD	.3470368	.5219944	.5606171	.5827888	.4673609	.4821006
#1	.4812093	.1218891	1.348547	10.79932	816.9023	.1801223
#2	.4800152	.1208804	1.356679	10.81950	817.2401	.1792852
#3	.4833155	.1220524	1.363742	10.91748	823.6968	.1810217

Elem	Sr4077
Units	ppm
Avg	.2065215
Stddev	.0003869
%RSD	.1873376
#1	.2062912
#2	.2063051
#3	.2069682

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2698.868	65216.10	14135.89	1769.199	3899.140
Stddev	1.813	101.28	12.15	4.535	7.004
%RSD	.0671604	.1553024	.0859285	.2563358	.1796277
#1	2700.919	65124.40	14142.84	1769.581	3904.596
#2	2698.203	65199.08	14121.86	1764.485	3901.581
#3	2697.481	65324.81	14142.96	1773.531	3891.242

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1715-01A Acquired: 4/10/2025 14:11:12 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8319907	1.724011	.8855440	2.186949	.8404016	18.03968
Stddev	.0008569	.014206	.0024870	.010607	.0056058	.02076
%RSD	.1029924	.8240023	.2808410	.4850196	.6670371	.1150749
#1	.8312182	1.722177	.8838987	2.182641	.8371172	18.02092
#2	.8318414	1.739045	.8884050	2.179174	.8372133	18.03613
#3	.8329124	1.710812	.8843283	2.199033	.8468744	18.06198

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1684366	.1631876	.1924087	11.01701	1.293263	.2022425
Stddev	.0012001	.0009302	.0006090	.05051	.006024	.0004791
%RSD	.7125158	.5700259	.3164881	.4584494	.4657769	.2368917
#1	.1673230	.1623692	.1918693	10.95914	1.293263	.2017846
#2	.1682790	.1629943	.1930690	11.05216	1.287239	.2027403
#3	.1697077	.1641992	.1922876	11.03975	1.299286	.2022026

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2925142	3.753137	.2078694	3.896149	.5174754	.0667696
Stddev	.0008536	.013241	.0012679	.026389	.0021003	.0010513
%RSD	.2918073	.3528055	.6099379	.6773102	.4058730	1.574454
#1	.2931453	3.741011	.2065065	3.884513	.5150634	.0674203
#2	.2915430	3.751136	.2080879	3.877577	.5184623	.0673317
#3	.2928543	3.767265	.2090138	3.926356	.5189004	.0655568

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 1894.418	.2722241	1.410249	202.4805	5.664449	.4416959
Stddev	11.360	.0024406	.002802	.6020	.024955	.0006554
%RSD	.5996718	.8965353	.1987125	.2973329	.4405484	.1483813
#1	1905.617	.2699614	1.407455	203.0874	5.635674	.4421426
#2	1882.903	.2719006	1.413060	201.8835	5.677507	.4409435
#3	1894.734	.2748103	1.410232	202.4706	5.680165	.4420015

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1715-01A Acquired: 4/10/2025 14:11:12 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7126780	.1824752	1.796801	F 11.66698	F 825.7018	.2027063
Stddev	.0042134	.0009159	.011276	.04201	3.1234	.0007914
%RSD	.5912045	.5019071	.6275627	.3601096	.3782732	.3904238
#1	.7078361	.1831271	1.784406	11.62329	824.2216	.2033346
#2	.7155109	.1814281	1.799546	11.70709	829.2901	.2018174
#3	.7146869	.1828704	1.806451	11.67058	823.5937	.2029668

Elem	Sr4077
Units	ppm
Avg	.2285868
Stddev	.0006371
%RSD	.2786893
#1	.2284385
#2	.2280370
#3	.2292849

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2667.284	64892.69	14237.21	1744.002	3875.426
Stddev	8.038	51.26	41.04	3.477	4.229
%RSD	.3013367	.0789843	.2882334	.1993458	.1091132
#1	2670.126	64837.00	14284.02	1744.079	3880.255
#2	2673.514	64903.18	14220.21	1740.488	3873.631
#3	2658.211	64937.89	14207.42	1747.440	3872.390

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1744-01 Acquired: 4/10/2025 14:15:22 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0271334	.0040979	.2601242	-.015217	-.000353	81.80127	.5744161
Stddev	.0010628	.0020597	.0017617	.001139	.000870	.09486	.0017932
%RSD	3.916791	50.26273	.6772672	7.484554	246.6564	.1159628	.3121850
#1	.0260018	.0038292	.2590299	-.013966	-.000050	81.72084	.5723577
#2	.0281104	.0021857	.2591861	-.015490	.000326	81.90588	.5756401
#3	.0272879	.0062788	.2621564	-.016194	-.001333	81.77708	.5752505

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0060466	-.004868	18.65998	.1504957	.0710951	.2243769	172.1056
Stddev	.0000523	.000131	.05008	.0011937	.0001128	.0014092	.2509
%RSD	.8649724	2.696132	.2683962	.7931791	.1586394	.6280432	.1457898
#1	.0060718	-.004873	18.62174	.1516811	.0711641	.2259408	172.2035
#2	.0060816	-.004734	18.71667	.1492938	.0711563	.2232057	171.8206
#3	.0059865	-.004996	18.64152	.1505121	.0709650	.2239842	172.2929

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.625795	21.74983	.1363385	.0058341	1.302000	.2080318	.3546357
Stddev	.015351	.06258	.0004173	.0003235	.009899	.0024615	.0006834
%RSD	.3318602	.2877389	.3060913	5.545418	.7603296	1.183232	.1927063
#1	4.608185	21.67771	.1361650	.0054764	1.309600	.2070244	.3542910
#2	4.632842	21.78186	.1360359	.0061063	1.305595	.2108372	.3554228
#3	4.636357	21.78991	.1368146	.0059195	1.290805	.2062338	.3541933

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.370534	.2733494	.0014967	.0125433	2.098264	2.096997	3.834890
Stddev	.045955	.0001518	.0000749	.0016462	.003294	.004481	.024547
%RSD	.5490074	.0555465	5.006960	13.12373	.1569998	.2136672	.6401095
#1	8.320615	.2732379	.0015247	.0127976	2.094998	2.092473	3.855222
#2	8.379907	.2735224	.0014118	.0140475	2.098208	2.097086	3.841827
#3	8.411079	.2732880	.0015536	.0107848	2.101586	2.101432	3.807620

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1744-01 Acquired: 4/10/2025 14:15:22 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2917548	.1728816	.1527477
Stddev	.0046255	.0008172	.0002165
%RSD	1.585417	.4726934	.1417585
#1	.2963334	.1729583	.1527667
#2	.2918474	.1736578	.1525223
#3	.2870837	.1720288	.1529541

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3374.876	82901.61	16901.18	2179.710	4877.649
Stddev	3.533	308.04	67.21	13.200	4.326
%RSD	.1046707	.3715704	.3976786	.6056045	.0886888
#1	3377.367	82968.44	16963.22	2192.015	4876.681
#2	3370.833	83170.75	16910.55	2181.347	4873.889
#3	3376.429	82565.65	16829.78	2165.767	4882.377

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1744-03 Acquired: 4/10/2025 14:19:30 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1053777	.0064367	3.423277	-.020905	-.004608	128.3374
Stddev	.0010381	.0024042	.010420	.005025	.000645	.3129
%RSD	.9851636	37.35203	.3043721	24.03739	14.00617	.2438167
#1	.1048290	.0046075	3.425931	-.026546	-.005352	128.0469
#2	.1047291	.0091598	3.432114	-.016907	-.004192	128.6687
#3	.1065751	.0055427	3.411788	-.019264	-.004281	128.2965

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3483010	.0054501	-.002631	16.98772	.3006450	.0598964
Stddev	.0013416	.0001184	.000349	.05512	.0002897	.0002120
%RSD	.3851843	2.172655	13.28149	.3244404	.0963480	.3539198
#1	.3478738	.0054652	-.002292	16.96849	.3004742	.0597230
#2	.3498042	.0055603	-.002611	17.04988	.3004813	.0598334
#3	.3472250	.0053249	-.002990	16.94480	.3009794	.0601327

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1971279	244.6933	1.446026	33.72087	.1695680	.0083775
Stddev	.0001960	.8926	.007065	.20834	.0007784	.0001893
%RSD	.0994422	.3648006	.4885802	.6178258	.4590356	2.259529
#1	.1971422	244.6404	1.446029	33.62035	.1703053	.0082474
#2	.1973164	243.8283	1.453089	33.96041	.1696445	.0082904
#3	.1969251	245.6112	1.438959	33.58186	.1687542	.0085947

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.581675	.3745336	.5575617	18.87099	.4066850	.0264127
Stddev	.044592	.0008675	.0014691	.11397	.0037115	.0002086
%RSD	.7989068	.2316143	.2634935	.6039461	.9126145	.7898596
#1	5.558925	.3755155	.5559675	18.90306	.4085923	.0266434
#2	5.553047	.3738712	.5588610	18.74443	.4024077	.0262374
#3	5.633054	.3742141	.5578566	18.96550	.4090549	.0263572

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1744-03 Acquired: 4/10/2025 14:19:30 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0115365	2.215363	7.311636	8.952090	F 19.36076	.3210459
Stddev	.0014604	.001618	.063597	.027301	.00515	.0005659
%RSD	12.65896	.0730537	.8698042	.3049711	.0265985	.1762810
#1	.0120311	2.216210	7.246940	8.978104	19.35643	.3215778
#2	.0098930	2.216382	7.313895	8.954505	19.36645	.3204512
#3	.0126853	2.213497	7.374074	8.923662	19.35941	.3211086

Elem	Sr4077
Units	ppm
Avg	.1237423
Stddev	.0000632
%RSD	.0510393
#1	.1237949
#2	.1237598
#3	.1236723

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3466.299	87519.23	18028.52	2268.246	4680.330
Stddev	4.236	120.90	115.60	6.360	4.076
%RSD	.1222179	.1381373	.6412062	.2804082	.0870848
#1	3462.573	87624.79	18034.90	2272.245	4675.850
#2	3470.907	87545.55	17909.86	2260.912	4681.322
#3	3465.417	87387.34	18140.80	2271.582	4683.819

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1754-03MS Acquired: 4/10/2025 14:23:35 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7919265	1.755248	1.054449	1.805413	.7816330	135.9390
Stddev	.0075132	.011389	.001531	.004724	.0067177	.1116
%RSD	.9487236	.6488714	.1451557	.2616713	.8594507	.0821273
#1	.7866609	1.766716	1.054911	1.810356	.7883000	135.9581
#2	.8005303	1.755089	1.052741	1.804939	.7748656	136.0398
#3	.7885882	1.743939	1.055696	1.800943	.7817335	135.8190

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7964195	.1742050	.1875120	922.4096	.5071643	.2612439
Stddev	.0030029	.0009075	.0001549	2.8710	.0019577	.0005950
%RSD	.3770496	.5209227	.0825793	.3112492	.3860033	.2277432
#1	.7976145	.1731827	.1876119	920.0586	.5076416	.2611020
#2	.7986409	.1749153	.1875904	925.6093	.5050121	.2607326
#3	.7930031	.1745170	.1873336	921.5610	.5088391	.2618969

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5439062	149.7880	3.271229	57.22177	.6473487	.0762766
Stddev	.0028204	.5244	.011243	.13069	.0005973	.0001802
%RSD	.5185530	.3501241	.3436922	.2283838	.0922760	.2362950
#1	.5443184	150.3773	3.268856	57.09613	.6478754	.0761375
#2	.5409023	149.6143	3.283469	57.35697	.6466997	.0762121
#3	.5464979	149.3725	3.261362	57.21220	.6474712	.0764802

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.68636	.5138300	.4979097	45.44638	.6034987	.3695056
Stddev	.08640	.0029636	.0012901	.27221	.0016480	.0014441
%RSD	.6312810	.5767583	.2591087	.5989734	.2730695	.3908063
#1	13.78432	.5159902	.4993993	45.76044	.6035857	.3710701
#2	13.62100	.5150482	.4971814	45.30029	.6051014	.3682237
#3	13.65376	.5104515	.4971485	45.27840	.6018089	.3692231

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1754-03MS Acquired: 4/10/2025 14:23:35 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6710360	5.684919	F 11.54231	F 13.35964	F 11.07757	.2067269
Stddev	.0008973	.018111	.02642	.03295	.02208	.0022444
%RSD	.1337174	.3185742	.2288738	.2466571	.1993123	1.085698
#1	.6712348	5.678254	11.52389	13.36228	11.09708	.2091954
#2	.6700560	5.705417	11.53045	13.39120	11.05360	.2061765
#3	.6718173	5.671084	11.57257	13.32545	11.08203	.2048089

Elem	Sr4077
Units	ppm
Avg	5.493076
Stddev	.049732
%RSD	.9053666
#1	5.437549
#2	5.508155
#3	5.533524

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2912.559	72383.35	14425.67	1928.247	3955.043
Stddev	6.050	177.53	47.73	10.332	3.978
%RSD	.2077329	.2452580	.3308692	.5358087	.1005770
#1	2906.305	72207.61	14475.72	1917.134	3950.539
#2	2918.383	72562.61	14380.66	1937.561	3958.078
#3	2912.989	72379.82	14420.63	1930.048	3956.511

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1754-03MSD Acquired: 4/10/2025 14:27:52 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7603788	1.685047	1.022950	1.729238	.7491720	135.3550
Stddev	.0028904	.008908	.002047	.005677	.0013545	.3616
%RSD	.3801241	.5286597	.2001001	.3282951	.1808040	.2671130
#1	.7619324	1.681642	1.021009	1.733692	.7497961	135.7193
#2	.7570439	1.678344	1.025089	1.722845	.7501020	135.3494
#3	.7621602	1.695156	1.022752	1.731176	.7476179	134.9963

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7844074	.1798100	.1821784	917.5670	.4965168	.2545772
Stddev	.0008062	.0010304	.0004857	3.6301	.0016229	.0003687
%RSD	.1027834	.5730451	.2666172	.3956255	.3268561	.1448391
#1	.7839365	.1799444	.1826099	921.1364	.4953888	.2549639
#2	.7853384	.1787190	.1816524	913.8790	.4957849	.2545382
#3	.7839474	.1807666	.1822728	917.6857	.4983768	.2542295

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5341040	143.8213	3.287477	57.19928	.6304843	.0731627
Stddev	.0013324	.7933	.007803	.12795	.0012526	.0003851
%RSD	.2494576	.5515729	.2373705	.2236929	.1986691	.5263576
#1	.5341480	142.9053	3.288390	57.30824	.6314700	.0730446
#2	.5327502	144.2740	3.279257	57.05839	.6290748	.0728505
#3	.5354138	144.2846	3.294783	57.23121	.6309082	.0735930

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.86139	.5090807	.4905218	42.95856	.5968374	.3557036
Stddev	.08297	.0009041	.0024812	.22395	.0012306	.0014728
%RSD	.6451097	.1775968	.5058369	.5213201	.2061902	.4140554
#1	12.77035	.5088271	.4877641	42.70100	.5963718	.3565153
#2	12.93275	.5100846	.4925738	43.10735	.5959075	.3540035
#3	12.88107	.5083306	.4912274	43.06734	.5982329	.3565920

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1754-03MSD Acquired: 4/10/2025 14:27:52 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6465076	5.606324	8.651139	F 13.05741	F 10.94893	.1998374
Stddev	.0031173	.008285	.013710	.02598	.02562	.0006723
%RSD	.4821805	.1477714	.1584719	.1989831	.2339561	.3364443
#1	.6483478	5.615790	8.645290	13.06891	10.93446	.1990802
#2	.6429083	5.602784	8.666803	13.02766	10.93382	.2000673
#3	.6482667	5.600397	8.641324	13.07566	10.97850	.2003646

Elem	Sr4077
Units	ppm
Avg	5.466000
Stddev	.048051
%RSD	.8790854
#1	5.521482
#2	5.438681
#3	5.437837

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2940.993	72185.20	13696.64	1939.541	3990.330
Stddev	4.157	182.79	47.54	4.866	4.057
%RSD	.1413613	.2532178	.3471085	.2508913	.1016763
#1	2941.061	72391.92	13649.04	1937.167	3990.755
#2	2945.115	72044.96	13744.13	1936.318	3994.158
#3	2936.801	72118.72	13696.74	1945.139	3986.077

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1745-09DUP Acquired: 4/10/2025 14:32:08 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5211898	.0115832	10.26612	-.016619	-.001094	84.24187
Stddev	.0035584	.0030965	.02609	.001342	.002620	.18081
%RSD	.6827525	26.73252	.2541191	8.078165	239.5489	.2146323
#1	.5178259	.0087735	10.29228	-.016457	.001422	84.04549
#2	.5208282	.0149031	10.26597	-.015364	-.000896	84.40145
#3	.5249152	.0110729	10.24010	-.018035	-.003808	84.27867

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.853899	.0076045	.0017212	147.2299	.2419181	.0913980
Stddev	.082038	.0001107	.0003909	.8219	.0008064	.0000968
%RSD	1.401431	1.455489	22.71044	.5582422	.3333283	.1058734
#1	5.828862	.0076355	.0021636	147.4826	.2413627	.0913513
#2	5.945539	.0076964	.0014225	147.8958	.2428430	.0915093
#3	5.787296	.0074816	.0015775	146.3113	.2415485	.0913335

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.202751	274.0681	2.927999	15.45026	.3856676	.0439089
Stddev	.003714	.5156	.017334	.09944	.0010259	.0003096
%RSD	.1159682	.1881213	.5920006	.6436178	.2660067	.7050491
#1	3.205943	273.4792	2.936170	15.48797	.3859294	.0440367
#2	3.198674	274.2869	2.939737	15.52533	.3865373	.0435559
#3	3.203635	274.4381	2.908090	15.33748	.3845362	.0441341

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.63147	.3173981	4.344424	18.15698	.4910787	.0371350
Stddev	.12855	.0006179	.007988	.10607	.0011830	.0001584
%RSD	.7729126	.1946874	.1838642	.5842073	.2408897	.4265864
#1	16.54783	.3174854	4.335322	18.08105	.4910158	.0372812
#2	16.56709	.3179677	4.350268	18.11171	.4922918	.0369667
#3	16.77949	.3167411	4.347683	18.27818	.4899284	.0371569

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1745-09DUP Acquired: 4/10/2025 14:32:08 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.926208	1.437877	5.316722	F 11.43240	F 17.13938	.3720130
Stddev	.004946	.004782	.038655	.01789	.02696	.0015082
%RSD	.2567556	.3325439	.7270524	.1564743	.1572923	.4054116
#1	1.929234	1.437963	5.276428	11.42003	17.16632	.3703602
#2	1.928889	1.442614	5.320239	11.45291	17.13942	.3733146
#3	1.920501	1.433052	5.353499	11.42426	17.11240	.3723641

Elem	Sr4077
Units	ppm
Avg	.9850665
Stddev	.0156591
%RSD	1.589649
#1	.9944452
#2	.9937650
#3	.9669891

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3299.758	81066.71	16575.76	2141.777	4622.769
Stddev	10.065	262.90	123.71	8.023	5.463
%RSD	.3050255	.3242993	.7463363	.3745892	.1181723
#1	3303.208	81368.70	16569.48	2150.728	4617.502
#2	3307.644	80888.91	16455.31	2139.372	4628.409
#3	3288.421	80942.52	16702.49	2135.232	4622.397

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1745-09LX5 Acquired: 4/10/2025 14:36:27 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1145378	.0012734	2.201203	-.002875	-.000810	18.27130	1.278750
Stddev	.0032078	.0007970	.004161	.000976	.001831	.03868	.003990
%RSD	2.800673	62.59071	.1890239	33.96266	225.9193	.2116785	.3120292
#1	.1146155	.0020537	2.197566	-.003552	.000172	18.23107	1.275871
#2	.1177061	.0013059	2.205740	-.003316	-.002923	18.27462	1.277074
#3	.1112918	.0004606	2.200303	-.001756	.000319	18.30821	1.283305

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0017597	-.001412	32.44908	.0542615	.0184725	.7454260	60.91821
Stddev	.0000271	.000025	.18130	.0001333	.0000481	.0012934	.12678
%RSD	1.541878	1.739861	.5587235	.2457398	.2606387	.1735102	.2081163
#1	.0017755	-.001438	32.33182	.0544149	.0185275	.7449618	61.06417
#2	.0017284	-.001410	32.35752	.0541734	.0184515	.7444289	60.83553
#3	.0017754	-.001389	32.65790	.0541961	.0184383	.7468875	60.85493

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6515748	3.453038	.0797337	.0101093	3.579068	.0680869	.9975765
Stddev	.0047276	.019376	.0004524	.0001624	.007170	.0011676	.0059585
%RSD	.7255701	.5611329	.5673335	1.606379	.2003437	1.714807	.5972960
#1	.6485811	3.441231	.0798675	.0099776	3.586896	.0693481	1.004419
#2	.6491184	3.442482	.0801042	.0100595	3.577491	.0678689	.994780
#3	.6570250	3.475400	.0792296	.0102907	3.572818	.0670437	.993530

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.765411	.1060782	.0080244	.3936330	.3232258	1.299499	2.346024
Stddev	.021576	.0002073	.0001627	.0004104	.0021259	.010750	.004892
%RSD	.5729935	.1953896	2.027711	.1042509	.6577125	.8272315	.2085329
#1	3.746325	.1060907	.0079750	.3940787	.3208175	1.299354	2.351389
#2	3.788821	.1062789	.0078922	.3935494	.3240184	1.288822	2.341810
#3	3.761088	.1058649	.0082061	.3932709	.3248416	1.310320	2.344872

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1745-09LX5 Acquired: 4/10/2025 14:36:27 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.491621	.0780964	.2132542
Stddev	.011399	.0006198	.0007138
%RSD	.3264644	.7936289	.3347301
#1	3.483629	.0785196	.2130094
#2	3.486560	.0773850	.2126950
#3	3.504674	.0783847	.2140582

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3193.432	78222.50	15939.02	2078.078	5012.221
Stddev	3.175	124.72	110.08	10.502	8.674
%RSD	.0994262	.1594384	.6906074	.5053769	.1730559
#1	3189.837	78099.92	16011.07	2066.558	5002.981
#2	3194.606	78349.25	15993.67	2087.118	5013.493
#3	3195.853	78218.33	15812.31	2080.557	5020.188

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCV05 Acquired: 4/10/2025 14:44:54 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.821979	4.825935	4.718089	4.907144	4.999745	9.907616
Stddev	.002808	.030563	.012583	.002419	.004594	.028687
%RSD	.0582410	.6333096	.2666918	.0492896	.0918849	.2895405
#1	4.824181	4.809950	4.703625	4.904353	4.996468	9.880362
#2	4.818816	4.806681	4.724122	4.908433	5.004996	9.904940
#3	4.822941	4.861176	4.726518	4.908644	4.997770	9.937547

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.733984	.2304198	2.354077	23.95709	1.018219	2.472167
Stddev	.087060	.0001433	.006113	.10084	.004217	.006080
%RSD	.8943873	.0622101	.2596979	.4209285	.4141962	.2459580
#1	9.820099	.2303611	2.347198	23.87340	1.019939	2.466069
#2	9.646009	.2303152	2.356142	23.92883	1.021305	2.472201
#3	9.735845	.2305832	2.358890	24.06905	1.013414	2.478230

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.282280	5.158174	2.358224	24.08553	2.479636	1.267849
Stddev	.001658	.024394	.010677	.07179	.006571	.004514
%RSD	.1293054	.4729115	.4527765	.2980533	.2650034	.3559999
#1	1.280366	5.151484	2.351713	24.00429	2.472196	1.271354
#2	1.283194	5.185214	2.352413	24.11190	2.482065	1.269437
#3	1.283280	5.137823	2.370547	24.14041	2.484646	1.262756

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.89867	2.437499	2.546806	26.14758	4.632018	4.969619
Stddev	.08030	.003809	.011573	.08747	.009385	.007095
%RSD	.2985233	.1562721	.4544175	.3345246	.2026060	.1427644
#1	26.91969	2.437239	2.555273	26.17052	4.625535	4.962994
#2	26.96637	2.433827	2.551527	26.22129	4.627740	4.968757
#3	26.80995	2.441432	2.533619	26.05092	4.642780	4.977105

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCV05 Acquired: 4/10/2025 14:44:54 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.789494	4.676318	F 6.175608	4.827351	4.700318	4.663326
Stddev	.015395	.018705	.008378	.035942	.017954	.018076
%RSD	.3214229	.3999928	.1356559	.7445586	.3819678	.3876100
#1	4.772081	4.660975	6.182705	4.786818	4.685806	4.653284
#2	4.795105	4.670824	6.166367	4.839889	4.694753	4.652501
#3	4.801296	4.697154	6.177752	4.855345	4.720395	4.684193

Elem	Sr4077
Units	ppm
Avg	4.702302
Stddev	.042505
%RSD	.9039225
#1	4.738748
#2	4.655610
#3	4.712546

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3140.040	75470.04	14456.04	2036.838	4874.950
Stddev	2.744	313.56	28.06	8.432	9.603
%RSD	.0873858	.4154824	.1941143	.4139625	.1969827
#1	3143.209	75221.21	14466.92	2031.484	4885.925
#2	3138.443	75366.66	14477.03	2032.473	4870.836
#3	3138.469	75822.24	14424.16	2046.558	4868.090

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCB05 Acquired: 4/10/2025 14:49:04 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012222	-.002355	-.001357	-.003021	-.000555	-.004687	-.007424
Stddev	.0011635	.000959	.001031	.001430	.000178	.003035	.000211
%RSD	95.19583	40.71774	75.95975	47.34290	32.07084	64.74689	2.848709
#1	.0019639	-.001294	-.002307	-.001567	-.000397	-.001194	-.007315
#2	-.000119	-.003160	-.000261	-.003069	-.000748	-.006191	-.007288
#3	.001821	-.002612	-.001503	-.004427	-.000519	-.006677	-.007667

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000576	-.000059	-.014956	-.000213	.0001144	-.000176	-.002123
Stddev	.0000336	.000068	.002600	.000203	.0001487	.000233	.003287
%RSD	58.41430	114.6369	17.38535	95.31902	130.0460	132.2313	154.8384
#1	.0000913	.000017	-.017814	-.000422	.0002802	-.000427	-.005303
#2	.0000240	-.000083	-.014327	-.000198	.0000701	.000035	-.002327
#3	.0000574	-.000113	-.012729	-.000018	-.000007	-.000138	.001262

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003586	-.013716	-.000267	.0005769	-.064198	-.002280	.0008825
Stddev	.000093	.009365	.000165	.0001920	.015787	.001057	.0003361
%RSD	2.598914	68.27822	61.63864	33.27344	24.59058	46.34834	38.08581
#1	-.003664	-.010035	-.000093	.0007380	-.082404	-.002396	.0005069
#2	-.003611	-.006751	-.000420	.0003645	-.055885	-.003274	.0009857
#3	-.003483	-.024363	-.000289	.0006282	-.054305	-.001170	.0011550

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.045741	-.000737	.0001443	-.000817	.0013294	.0047205	-.002371
Stddev	.025077	.000392	.0001746	.000528	.0001901	.0019889	.002311
%RSD	54.82447	53.27764	120.9974	64.63241	14.29569	42.13308	97.47502
#1	-.070855	-.000327	-.000057	-.000594	.0011107	.0070122	.000199
#2	-.045668	-.001110	.000252	-.001419	.0014548	.0034457	-.004279
#3	-.020701	-.000772	.000238	-.000437	.0014226	.0037035	-.003034

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCB05 Acquired: 4/10/2025 14:49:04 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0028881	-.003035	-.000158
Stddev	.0013020	.000757	.000019
%RSD	45.08110	24.93826	12.02036
#1	.0015235	-.003909	-.000151
#2	.0041168	-.002609	-.000145
#3	.0030238	-.002588	-.000180

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3301.976	80344.06	15232.16	2163.456	5488.386
Stddev	6.748	152.15	99.05	5.252	10.413
%RSD	.2043587	.1893770	.6502609	.2427675	.1897260
#1	3309.581	80216.22	15121.87	2159.642	5496.235
#2	3296.704	80303.60	15313.53	2161.280	5476.573
#3	3299.643	80512.35	15261.08	2169.447	5492.349

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1745-09A Acquired: 4/10/2025 14:57:40 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.247967	1.771760	11.00033	1.744867	.7541677	85.67153
Stddev	.005756	.007312	.03443	.005284	.0080000	.31846
%RSD	.4612391	.4127078	.3129748	.3028263	1.060775	.3717240
#1	1.242301	1.777503	10.96521	1.739577	.7460783	86.03857
#2	1.247791	1.774248	11.00176	1.744878	.7543494	85.46848
#3	1.253810	1.763528	11.03402	1.750145	.7620753	85.50754

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.028086	.1504675	.1818714	146.4638	.5849426	.2766394
Stddev	.128283	.0003314	.0007846	.6824	.0008207	.0006212
%RSD	2.128087	.2202689	.4314008	.4659442	.1402954	.2245383
#1	6.156594	.1507811	.1810829	147.1330	.5854780	.2768439
#2	6.027634	.1501207	.1818793	145.7689	.5839978	.2759417
#3	5.900030	.1505007	.1826520	146.4895	.5853521	.2771325

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.437251	282.7662	3.026176	16.82639	.8508241	.1124113
Stddev	.012840	1.1232	.017488	.08204	.0026793	.0002689
%RSD	.3735476	.3972314	.5778895	.4875595	.3149019	.2392267
#1	3.424271	283.6392	3.041247	16.88080	.8486635	.1127083
#2	3.437538	281.4990	3.007001	16.73203	.8499868	.1123411
#3	3.449945	283.1603	3.030279	16.86635	.8538220	.1121844

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.37814	.5596774	4.477476	28.93263	.7138190	.4038517
Stddev	.09392	.0023913	.009885	.09008	.0035487	.0018949
%RSD	.4608754	.4272717	.2207766	.3113456	.4971427	.4692002
#1	20.47279	.5613223	4.482411	29.03638	.7169618	.4018351
#2	20.37665	.5569342	4.466095	28.87434	.7099705	.4041245
#3	20.28497	.5607757	4.483922	28.88717	.7145248	.4055953

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1745-09A Acquired: 4/10/2025 14:57:40 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.546950	1.594701	6.494810	F 16.55133	F 16.95805	.5480931
Stddev	.008246	.006798	.023429	.02090	.04038	.0033148
%RSD	.3237735	.4262818	.3607343	.1262911	.2381192	.6047969
#1	2.543871	1.601162	6.516714	16.56369	16.94030	.5519017
#2	2.540686	1.587610	6.470107	16.52720	16.92958	.5465190
#3	2.556293	1.595330	6.497610	16.56311	17.00426	.5458585

Elem	Sr4077
Units	ppm
Avg	1.142288
Stddev	.002952
%RSD	.2583945
#1	1.144486
#2	1.138934
#3	1.143445

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3208.678	79381.62	16994.03	2075.333	4525.755
Stddev	17.662	133.98	54.01	6.692	16.614
%RSD	.5504402	.1687752	.3177955	.3224766	.3671093
#1	3228.360	79331.14	16967.64	2069.239	4541.624
#2	3203.467	79533.51	17056.16	2082.495	4527.156
#3	3194.209	79280.22	16958.30	2074.263	4508.484

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1745-09MS Acquired: 4/10/2025 15:05:31 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.228179	1.794192	11.06009	1.714554	.7366440	85.73221
Stddev	.004343	.006963	.02586	.004958	.0027243	.18487
%RSD	.3535980	.3880959	.2338344	.2891911	.3698198	.2156347
#1	1.228292	1.787807	11.08045	1.708963	.7397102	85.92934
#2	1.232464	1.801616	11.06884	1.718417	.7357192	85.70457
#3	1.223781	1.793153	11.03099	1.716282	.7345025	85.56272

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.023587	.1614431	.1850411	147.6590	.5821810	.2788221
Stddev	.089315	.0006368	.0003018	.3265	.0010577	.0011598
%RSD	1.482762	.3944568	.1630961	.2211317	.1816772	.4159723
#1	6.025770	.1614339	.1853896	147.8984	.5813735	.2792507
#2	5.933199	.1608110	.1848671	147.2871	.5817912	.2797067
#3	6.111790	.1620845	.1848667	147.7916	.5833782	.2775090

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.431432	269.9722	3.086191	17.00000	.8528761	.1095059
Stddev	.002331	.5203	.004822	.03023	.0029325	.0001016
%RSD	.0679210	.1927274	.1562399	.1778149	.3438383	.0927999
#1	3.431161	270.3636	3.086635	16.96573	.8553224	.1094050
#2	3.433886	270.1712	3.081162	17.02290	.8536806	.1096082
#3	3.429248	269.3817	3.090775	17.01135	.8496253	.1095046

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.03101	.5642822	4.446043	27.08727	.6952369	.4008237
Stddev	.07901	.0010878	.027251	.08057	.0011733	.0003819
%RSD	.4151498	.1927758	.6129255	.2974316	.1687590	.0952746
#1	19.06424	.5633442	4.444117	27.09839	.6963000	.4011067
#2	19.08797	.5654747	4.419806	27.16169	.6954327	.4009750
#3	18.94081	.5640277	4.474206	27.00172	.6939781	.4003893

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1745-09MS Acquired: 4/10/2025 15:05:31 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.563729	1.604546	6.097515	F 16.87723	F 17.11972	.5450000
Stddev	.005776	.005640	.008481	.05382	.06241	.0009810
%RSD	.2252881	.3514717	.1390966	.3188838	.3645388	.1799997
#1	2.569711	1.611044	6.104344	16.81564	17.09950	.5455656
#2	2.563293	1.600937	6.100180	16.91522	17.18973	.5455671
#3	2.558184	1.601656	6.088021	16.90082	17.06993	.5438672

Elem	Sr4077
Units	ppm
Avg	1.151019
Stddev	.011332
%RSD	.9845527
#1	1.162274
#2	1.139610
#3	1.151172

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3252.781	80214.85	15969.47	2133.394	4544.343
Stddev	2.803	52.32	51.99	10.041	3.315
%RSD	.0861607	.0652249	.3255865	.4706802	.0729467
#1	3251.205	80267.45	15986.62	2139.063	4540.743
#2	3256.017	80214.29	16010.73	2139.318	4547.270
#3	3251.121	80162.81	15911.07	2121.800	4545.016

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1745-09MSD Acquired: 4/10/2025 15:09:46 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.208200	1.763974	11.03826	1.674924	.7206198	86.53569
Stddev	.004067	.009548	.04063	.009082	.0060007	.24900
%RSD	.3366284	.5412794	.3680797	.5422494	.8327174	.2877389
#1	1.210155	1.752979	10.99393	1.674943	.7208704	86.24842
#2	1.203525	1.768764	11.04715	1.665833	.7144977	86.66904
#3	1.210921	1.770178	11.07371	1.683997	.7264913	86.68961

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.468890	.1514341	.1793649	148.8687	.5769227	.2752258
Stddev	.116227	.0006306	.0008691	.4531	.0024636	.0015884
%RSD	1.796710	.4163841	.4845729	.3043791	.4270272	.5771409
#1	6.580196	.1521612	.1785061	149.0327	.5766056	.2734600
#2	6.478175	.1511033	.1793446	149.2171	.5746331	.2756792
#3	6.348299	.1510378	.1802440	148.3564	.5795296	.2765382

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.388769	280.8587	3.102812	16.99343	.8429482	.1103165
Stddev	.009318	1.4341	.007081	.07167	.0030779	.0001346
%RSD	.2749620	.5106004	.2281999	.4217528	.3651399	.1220332
#1	3.387757	279.8550	3.103470	17.03721	.8396719	.1101927
#2	3.379998	280.2201	3.109541	17.03236	.8433934	.1102970
#3	3.398551	282.5012	3.095426	16.91072	.8457792	.1104598

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.73285	.5638163	4.408932	28.44060	.7111312	.3934843
Stddev	.19858	.0021969	.004064	.20805	.0053380	.0014549
%RSD	1.006357	.3896403	.0921689	.7315274	.7506401	.3697486
#1	19.57253	.5649233	4.412286	28.26636	.7075308	.3925441
#2	19.67102	.5652395	4.404413	28.38449	.7085987	.3927487
#3	19.95499	.5612862	4.410097	28.67095	.7172641	.3951601

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1745-09MSD Acquired: 4/10/2025 15:09:46 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.532487	1.691386	8.251917	F 16.74352	F 16.92428	.5508845
Stddev	.011126	.004978	.063250	.09982	.05398	.0034452
%RSD	.4393182	.2943385	.7664904	.5961775	.3189280	.6253909
#1	2.519653	1.692840	8.193891	16.63550	16.86857	.5469591
#2	2.538404	1.695475	8.242520	16.76269	16.92793	.5522885
#3	2.539404	1.685842	8.319340	16.83236	16.97633	.5534060

Elem	Sr4077
Units	ppm
Avg	1.173332
Stddev	.005919
%RSD	.5044394
#1	1.180151
#2	1.169523
#3	1.170322

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3291.817	81417.90	16886.43	2160.304	4595.428
Stddev	5.765	371.18	103.05	5.794	15.894
%RSD	.1751416	.4558906	.6102339	.2682111	.3458763
#1	3297.664	81296.59	16781.01	2153.613	4613.775
#2	3291.649	81834.55	16891.36	2163.652	4586.695
#3	3286.137	81122.55	16986.93	2163.646	4585.815

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PBW04 Acquired: 4/10/2025 15:14:00 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000920	-.002017	.0002746	-.000846	.0001129	.0062032	-.009020
Stddev	.001920	.000704	.0009572	.003350	.0009254	.0014709	.001417
%RSD	208.7652	34.91921	348.5355	395.7748	819.4365	23.71141	15.70344
#1	-.000137	-.002694	-.000665	.003007	.0011067	.0058637	-.010233
#2	.000486	-.001288	.000241	-.003059	-.000724	.0078141	-.009365
#3	-.003108	-.002070	.001248	-.002488	-.000044	.0049318	-.007463

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000409	-.000064	-.003560	-.000223	-.000199	-.000210	.0232555
Stddev	.0000298	.000019	.004432	.000216	.000107	.000603	.0032453
%RSD	72.73248	29.94521	124.5024	96.97990	53.84214	287.6197	13.95503
#1	.0000691	-.000066	.001538	-.000448	-.000139	.000364	.0197109
#2	.0000098	-.000083	-.006503	-.000017	-.000322	-.000838	.0239748
#3	.0000438	-.000044	-.005714	-.000204	-.000135	-.000155	.0260808

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003769	-.007325	-.000134	.0006742	-.131425	-.001466	-.001421
Stddev	.000077	.004961	.000108	.0001320	.021162	.001252	.000139
%RSD	2.040776	67.72347	80.57281	19.58080	16.10204	85.41095	9.751119
#1	-.003839	-.008804	-.000033	.0005697	-.154551	-.000194	-.001577
#2	-.003782	-.001793	-.000121	.0008225	-.126699	-.002697	-.001312
#3	-.003687	-.011378	-.000247	.0006302	-.113025	-.001508	-.001373

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.111367	-.006304	-.000129	-.000362	.0014458	.0006190	-.001375
Stddev	.009883	.000378	.000094	.000864	.0005717	.0022959	.003795
%RSD	8.874113	6.002046	72.75766	238.2884	39.54158	370.9184	276.1164
#1	-.120312	-.006589	-.000086	.000594	.0019300	.0032566	.002303
#2	-.100758	-.005875	-.000064	-.001084	.0008151	-.000931	-.001149
#3	-.113031	-.006448	-.000237	-.000597	.0015922	-.000468	-.005278

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PBW04 Acquired: 4/10/2025 15:14:00 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0068061	-.002972	-.000273
Stddev	.0011667	.000991	.000016
%RSD	17.14208	33.35241	5.704360
#1	.0079597	-.001833	-.000285
#2	.0056267	-.003639	-.000256
#3	.0068320	-.003445	-.000278

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3223.476	77939.69	15734.18	2080.503	5370.619
Stddev	10.893	328.35	75.34	2.491	10.440
%RSD	.3379411	.4212890	.4788330	.1197070	.1943902
#1	3224.299	78186.26	15789.43	2082.502	5364.040
#2	3233.934	77566.97	15764.76	2081.295	5382.657
#3	3212.194	78065.83	15648.36	2077.713	5365.161

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: LCSW04 Acquired: 4/10/2025 15:18:19 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7576424	1.903532	.9062977	1.953392	.8051331	1.845046
Stddev	.0007736	.018103	.0006047	.003476	.0018380	.038263
%RSD	.1021098	.9510414	.0667267	.1779519	.2282829	2.073828
#1	.7569277	1.889535	.9063786	1.954416	.8048953	1.845801
#2	.7575357	1.897086	.9068580	1.949519	.8034256	1.882926
#3	.7584639	1.923977	.9056566	1.956242	.8070784	1.806411

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .1653987	F .1648112	.1813829	.9041579	.3952404	.1845451
Stddev	.0026550	.0028124	.0003363	.0138689	.0018705	.0003901
%RSD	1.605189	1.706449	.1854063	1.533903	.4732537	.2114051
#1	.1654010	.1659516	.1816872	.9065691	.3964775	.1846203
#2	.1680525	.1668744	.1810218	.9166631	.3930886	.1841229
#3	.1627426	.1616077	.1814398	.8892415	.3961551	.1848922

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3025452	3.018301	.1748570	1.791013	.4682837	.0730825
Stddev	.0006136	.015657	.0023634	.033183	.0008605	.0002291
%RSD	.2028156	.5187346	1.351616	1.852762	.1837533	.3134175
#1	.3027375	3.007026	.1756486	1.804063	.4686687	.0732816
#2	.3018585	3.011699	.1767230	1.815687	.4672979	.0731337
#3	.3030397	3.036177	.1721995	1.753288	.4688844	.0728322

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.977005	.2715203	.1977653	9.967833	F .2449088	.3987081
Stddev	.014007	.0037918	.0009959	.069412	.0055344	.0006036
%RSD	.4705157	1.396498	.5035772	.6963566	2.259791	.1513899
#1	2.979902	.2726200	.1972812	9.965286	.2461018	.3984715
#2	2.961776	.2746407	.1989107	9.899729	.2497494	.3982586
#3	2.989338	.2673003	.1971040	10.03848	.2388751	.3993941

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: LCSW04 Acquired: 4/10/2025 15:18:19 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6380625	.1795643	.8431739	5.280737	F -.005559	.1803545
Stddev	.0011780	.0035611	.0086002	.018048	.000548	.0026506
%RSD	.1846144	1.983180	1.019983	.3417749	9.858230	1.469685
#1	.6376259	.1805903	.8358969	5.271652	-.005274	.1802544
#2	.6371653	.1824998	.8526646	5.269037	-.005213	.1830537
#3	.6393965	.1756029	.8409603	5.301523	-.006191	.1777553

Elem	Sr4077
Units	ppm
Avg	.1819517
Stddev	.0029714
%RSD	1.633064
#1	.1821534
#2	.1848171
#3	.1788846

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3216.148	76896.94	15545.84	2048.400	5323.371
Stddev	4.440	181.26	266.93	9.466	7.481
%RSD	.1380389	.2357177	1.717020	.4621259	.1405316
#1	3217.498	76859.15	15462.27	2059.323	5330.327
#2	3219.755	77094.11	15330.70	2042.586	5324.330
#3	3211.190	76737.55	15844.55	2043.291	5315.457

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PBS04 Acquired: 4/10/2025 15:23:05 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007325	-.001210	-.000581	-.002501	-.000736	-.002091	-.009780
Stddev	.0013715	.000419	.000198	.001259	.000279	.003676	.001014
%RSD	187.2491	34.60836	34.01436	50.32441	37.98503	175.8422	10.36345
#1	.0022984	-.001410	-.000391	-.003728	-.001028	.001788	-.008620
#2	-.000255	-.000729	-.000567	-.002562	-.000472	-.002535	-.010495
#3	.000154	-.001492	-.000786	-.001213	-.000707	-.005524	-.010224

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000515	-.000110	-.021503	-.000336	-.000157	-.000270	-.008461
Stddev	.0000303	.000077	.002720	.000260	.000163	.000087	.002052
%RSD	58.84267	70.41559	12.65019	77.25646	103.4122	32.24927	24.24987
#1	.0000860	-.000199	-.022190	-.000266	-.000102	-.000184	-.008513
#2	.0000294	-.000070	-.023815	-.000624	-.000340	-.000358	-.010487
#3	.0000390	-.000060	-.018506	-.000119	-.000029	-.000269	-.006384

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004111	-.001549	-.000365	.0007575	-.205568	-.001317	-.001749
Stddev	.000278	.012440	.000113	.0000726	.008946	.000486	.000286
%RSD	6.754406	803.2388	31.00371	9.585263	4.351715	36.89719	16.33950
#1	-.003861	.011295	-.000369	.0007766	-.214090	-.001762	-.001441
#2	-.004063	-.013542	-.000476	.0006773	-.206361	-.000798	-.001798
#3	-.004410	-.002398	-.000250	.0008187	-.196252	-.001392	-.002006

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.130481	-.006425	-.000353	-.000887	.0013311	.0067658	-.000131
Stddev	.035839	.000712	.000061	.000466	.0005311	.0014352	.002690
%RSD	27.46694	11.07798	17.19214	52.55240	39.89799	21.21270	2048.614
#1	-.148349	-.005664	-.000349	-.001350	.0011981	.0059301	-.003108
#2	-.153873	-.006536	-.000295	-.000418	.0008792	.0084231	.002126
#3	-.089220	-.007074	-.000416	-.000894	.0019161	.0059444	.000588

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PBS04 Acquired: 4/10/2025 15:23:05 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0033195	-.003952	-.000318
Stddev	.0039189	.000692	.000029
%RSD	118.0558	17.51701	9.251480
#1	.0078413	-.003901	-.000333
#2	.0009094	-.004669	-.000284
#3	.0012077	-.003287	-.000335

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3253.745	78814.10	15192.33	2116.773	5428.569
Stddev	5.785	112.39	62.41	3.627	7.548
%RSD	.1777876	.1425981	.4108163	.1713561	.1390359
#1	3254.884	78768.84	15125.92	2117.009	5421.781
#2	3258.876	78942.06	15201.28	2120.277	5436.697
#3	3247.476	78731.39	15249.78	2113.034	5427.229

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: LCSS04 Acquired: 4/10/2025 15:27:25 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7403343	1.890259	.9014139	1.901494	.7776342	1.834527
Stddev	.0030027	.004759	.0044376	.006278	.0016461	.020483
%RSD	.4055916	.2517472	.4922987	.3301516	.2116802	1.116501
#1	.7368976	1.895709	.9038716	1.896629	.7785508	1.841394
#2	.7424507	1.888143	.8962911	1.899272	.7757338	1.850694
#3	.7416545	1.886925	.9040789	1.908581	.7786180	1.811494

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .1619171	.1904143	.1811821	.9060248	.3890079	.1842340
Stddev	.0029232	.0023115	.0009250	.0027718	.0008297	.0007488
%RSD	1.805342	1.213936	.5105348	.3059330	.2132876	.4064522
#1	.1633485	.1921736	.1811253	.9031789	.3894738	.1840871
#2	.1638487	.1912731	.1802868	.9087161	.3880500	.1835695
#3	.1585541	.1877963	.1821342	.9061793	.3895000	.1850453

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2984718	2.701343	.1765063	1.789391	.4662514	.0725879
Stddev	.0016074	.013125	.0014659	.021871	.0016011	.0002042
%RSD	.5385476	.4858685	.8305126	1.222279	.3434062	.2813381
#1	.2977001	2.686950	.1776946	1.807399	.4658600	.0723941
#2	.2973957	2.704430	.1769561	1.795722	.4648823	.0725685
#3	.3003195	2.712649	.1748682	1.765053	.4680120	.0728011

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 2.512675	.2689246	.1972977	8.590969	.2821641	.3902779
Stddev	.020077	.0014382	.0001161	.012321	.0030780	.0010862
%RSD	.7990154	.5347795	.0588572	.1434216	1.090854	.2783138
#1	2.495470	.2704925	.1974237	8.576766	.2842250	.3892615
#2	2.507821	.2686143	.1971951	8.597349	.2836413	.3901497
#3	2.534733	.2676669	.1972743	8.598792	.2786259	.3914225

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: LCSS04 Acquired: 4/10/2025 15:27:25 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6331335	.1784203	F .7254084	5.362893	F -.006223	.1801486
Stddev	.0026694	.0018615	.0056940	.018580	.001646	.0021658
%RSD	.4216246	1.043345	.7849348	.3464607	26.44923	1.202240
#1	.6341145	.1795103	.7202965	5.355548	-.005816	.1803488
#2	.6301123	.1794797	.7315453	5.349108	-.004819	.1822074
#3	.6351736	.1762708	.7243834	5.384023	-.008035	.1778897

Elem	Sr4077
Units	ppm
Avg	.1767692
Stddev	.0014246
%RSD	.8059290
#1	.1771999
#2	.1779287
#3	.1751789

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3272.900	77885.63	13636.95	2129.308	5347.270
Stddev	2.457	76.98	167.03	6.595	8.808
%RSD	.0750708	.0988323	1.224815	.3097039	.1647156
#1	3275.403	77839.14	13535.98	2127.533	5351.833
#2	3272.806	77843.26	13545.13	2123.783	5352.861
#3	3270.492	77974.48	13829.75	2136.609	5337.117

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PBW05 Acquired: 4/10/2025 15:31:29 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000332	-.001290	-.001967	-.000647	.0007979	-.002085	-.008708
Stddev	.002701	.000759	.000524	.000958	.0006656	.003861	.000633
%RSD	813.9202	58.80375	26.64932	147.9285	83.42186	185.1529	7.269680
#1	-.001803	-.002165	-.002564	.000433	.0015218	-.003489	-.008309
#2	-.001978	-.000890	-.001585	-.001391	.0002123	-.005049	-.008376
#3	.002785	-.000816	-.001751	-.000984	.0006595	.002281	-.009438

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000779	-.000075	-.019910	-.000070	.0000132	-.000335	-.006429
Stddev	.0000598	.000018	.002474	.000037	.0001378	.000359	.004668
%RSD	76.82727	23.56383	12.42404	52.41728	1043.095	107.2323	72.61161
#1	.0000935	-.000059	-.018334	-.000037	.0000210	-.000097	-.004761
#2	.0001283	-.000072	-.022761	-.000063	.0001469	-.000160	-.011702
#3	.0000118	-.000094	-.018636	-.000110	-.000128	-.000749	-.002824

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004135	-.009244	-.000401	.0006058	-.251491	-.001695	-.001927
Stddev	.000330	.004575	.000357	.0000802	.011889	.000750	.000313
%RSD	7.983433	49.49142	89.09716	13.24344	4.727543	44.23561	16.24602
#1	-.004084	-.014471	-.000814	.0005504	-.263309	-.000918	-.002277
#2	-.003834	-.007294	-.000204	.0006978	-.251633	-.001753	-.001674
#3	-.004488	-.005967	-.000186	.0005692	-.239532	-.002414	-.001831

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.140168	-.006502	-.000408	-.001203	.0014345	.0000743	-.002304
Stddev	.007733	.000303	.000140	.000153	.0004535	.0034311	.000837
%RSD	5.516906	4.660796	34.29605	12.73160	31.61364	4620.451	36.33761
#1	-.146083	-.006405	-.000393	-.001379	.0011709	-.003880	-.002678
#2	-.143003	-.006259	-.000555	-.001134	.0011745	.002259	-.001345
#3	-.131418	-.006842	-.000276	-.001097	.0019582	.001844	-.002889

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PBW05 Acquired: 4/10/2025 15:31:29 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0006803	-.004720	-.000324
Stddev	.0011312	.000208	.000053
%RSD	166.2671	4.415249	16.37272
#1	.0017096	-.004892	-.000326
#2	-.000531	-.004781	-.000377
#3	.000862	-.004489	-.000271

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3250.483	79473.87	14913.50	2142.447	5387.221
Stddev	10.741	164.89	217.69	3.913	11.077
%RSD	.3304518	.2074729	1.459652	.1826373	.2056108
#1	3255.573	79497.06	15161.08	2145.695	5394.289
#2	3257.734	79298.61	14752.09	2143.543	5392.918
#3	3238.143	79625.93	14827.35	2138.103	5374.455

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PBS05 Acquired: 4/10/2025 15:35:50 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005206	-.001747	-.001207	-.001490	.0001547	.0167442	-.009906
Stddev	.0028431	.000858	.001148	.003893	.0010575	.0018270	.000476
%RSD	546.1054	49.12278	95.12769	261.2563	683.7956	10.91106	4.804924
#1	-.002749	-.002710	-.002472	-.002461	-.000172	.0149640	-.009383
#2	.001901	-.001472	-.000230	-.004806	.001337	.0186146	-.010313
#3	.002410	-.001060	-.000919	.002796	-.000701	.0166540	-.010024

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000552	-.000089	-.014153	-.000236	-.000074	-.000512	-.011288
Stddev	.0000185	.000052	.006750	.000051	.000220	.000316	.003998
%RSD	33.51974	57.79000	47.69612	21.54504	295.9927	61.78506	35.41531
#1	.0000403	-.000075	-.008719	-.000207	-.000030	-.000292	-.013711
#2	.0000494	-.000046	-.021710	-.000205	.000120	-.000369	-.013478
#3	.0000759	-.000147	-.012030	-.000294	-.000313	-.000874	-.006674

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004211	-.001209	-.000186	.0004527	-.254231	-.001624	-.001648
Stddev	.000313	.017348	.000154	.0001344	.005661	.001775	.000220
%RSD	7.440293	1434.618	82.92646	29.68019	2.226842	109.2670	13.35593
#1	-.004194	.017570	-.000364	.0004161	-.248481	-.002600	-.001597
#2	-.004532	-.016637	-.000103	.0006016	-.259799	-.002697	-.001459
#3	-.003906	-.004561	-.000091	.0003405	-.254414	.000424	-.001890

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.186907	-.007556	-.000309	-.001619	.0010021	.0006799	-.000830
Stddev	.005255	.000786	.000156	.000150	.0003511	.0044738	.001402
%RSD	2.811525	10.40471	50.43576	9.242377	35.03785	658.0116	168.9295
#1	-.191844	-.008209	-.000472	-.001780	.0010770	.0039401	-.002154
#2	-.187492	-.006683	-.000294	-.001484	.0006195	.0025201	.000639
#3	-.181383	-.007775	-.000161	-.001592	.0013096	-.004421	-.000975

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PBS05 Acquired: 4/10/2025 15:35:50 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0014869	-.004544	-.000390
Stddev	.0010648	.001199	.000051
%RSD	71.61293	26.39223	13.02705
#1	.0002774	-.005264	-.000441
#2	.0019000	-.003160	-.000340
#3	.0022833	-.005209	-.000390

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3223.032	77717.63	15672.74	2083.378	5382.960
Stddev	13.716	372.53	114.33	4.450	11.819
%RSD	.4255497	.4793406	.7294671	.2135802	.2195698
#1	3238.869	77690.67	15785.40	2086.823	5396.352
#2	3215.033	78102.90	15676.00	2078.354	5378.543
#3	3215.194	77359.30	15556.82	2084.957	5373.985

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: WATER MDL-4 Acquired: 4/10/2025 15:40:10 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0054705	.0075109	.0008554	.0034555	.0129267	.0238575	.0119860
Stddev	.0007645	.0009014	.0009971	.0007065	.0015854	.0052321	.0006495
%RSD	13.97541	12.00114	116.5683	20.44632	12.26427	21.93068	5.418940
#1	.0062096	.0085275	.0018896	.0035684	.0144731	.0283115	.0126250
#2	.0055191	.0071959	.0007767	.0040989	.0130020	.0251656	.0113265
#3	.0046829	.0068093	-.000100	.0026994	.0113050	.0180955	.0120064

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013411	.0012679	.4421826	.0022396	.0069203	.0053947	.0177538
Stddev	.0000122	.0001006	.0070417	.0004472	.0001994	.0003349	.0041573
%RSD	.9096884	7.933961	1.592487	19.96715	2.881668	6.208443	23.41638
#1	.0013509	.0011557	.4406997	.0017235	.0071221	.0052984	.0208748
#2	.0013274	.0013501	.4360004	.0025104	.0069154	.0051185	.0193520
#3	.0013450	.0012978	.4498476	.0024849	.0067233	.0057672	.0130346

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006626	.4862936	.0092069	.0032443	.2839204	.0076631	.0085414
Stddev	.0002287	.0111098	.0000424	.0001074	.0063909	.0010557	.0001366
%RSD	34.51744	2.284586	.4603594	3.309060	2.250948	13.77578	1.599209
#1	.0004562	.4932896	.0092143	.0033155	.2775618	.0076336	.0084045
#2	.0006232	.4921080	.0091613	.0032966	.2903431	.0066225	.0085421
#3	.0009085	.4734833	.0092451	.0031208	.2838565	.0087331	.0086777

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3574287	.0153396	.0513230	.0080638	.0107351	.1031963	.0000893
Stddev	.0272943	.0007696	.0005387	.0005171	.0006906	.0031126	.0031864
%RSD	7.636285	5.017126	1.049540	6.412545	6.432960	3.016151	3569.227
#1	.3280902	.0149220	.0515169	.0084499	.0114778	.1056535	.0030209
#2	.3621270	.0162278	.0507142	.0082652	.0106150	.1042393	.0005488
#3	.3820688	.0148691	.0517377	.0074763	.0101124	.0996962	-.003302

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: WATER MDL-4 Acquired: 4/10/2025 15:40:10 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0062418	-.000598	.0042564
Stddev	.0014291	.000678	.0000254
%RSD	22.89537	113.3639	.5963747
#1	.0057765	-.000245	.0042407
#2	.0078455	-.001379	.0042428
#3	.0051033	-.000170	.0042857

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3251.013	77195.09	15372.36	2066.975	5438.664
Stddev	16.197	489.12	33.69	19.137	16.915
%RSD	.4982177	.6336097	.2191888	.9258327	.3110228
#1	3240.834	77705.84	15391.21	2085.405	5430.413
#2	3269.690	77148.46	15392.41	2047.202	5458.122
#3	3242.513	76730.95	15333.46	2068.316	5427.457

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCV06 Acquired: 4/10/2025 15:44:28 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.775879	4.767511	4.693859	4.851858	4.962260	9.969920
Stddev	.007799	.005463	.008347	.006428	.008862	.131164
%RSD	.1633080	.1145779	.1778351	.1324844	.1785810	1.315593
#1	4.766939	4.766933	4.699860	4.848438	4.961135	9.833723
#2	4.779405	4.773239	4.684327	4.847863	4.954014	10.09539
#3	4.781293	4.762360	4.697392	4.859273	4.971630	9.98065

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.635493	.2284817	2.335379	24.06699	1.012095	2.451475
Stddev	.118976	.0020046	.001990	.27580	.004967	.002504
%RSD	1.234771	.8773549	.0851938	1.145948	.4907872	.1021345
#1	9.618195	.2262828	2.337148	23.74918	1.017830	2.451909
#2	9.526113	.2289548	2.333225	24.24343	1.009249	2.448782
#3	9.762172	.2302074	2.335765	24.20838	1.009205	2.453733

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.269651	5.061043	2.375758	24.20802	2.467823	1.256160
Stddev	.001799	.007998	.026709	.30939	.002455	.002697
%RSD	.1417276	.1580384	1.124214	1.278068	.0994766	.2147111
#1	1.268327	5.051817	2.345032	23.85082	2.470136	1.259085
#2	1.268926	5.065282	2.393413	24.38145	2.465247	1.253771
#3	1.271700	5.066029	2.388831	24.39180	2.468086	1.255626

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.51730	2.450747	2.523793	25.72441	4.628227	4.963566
Stddev	.16365	.033081	.005691	.10760	.050710	.005280
%RSD	.6171523	1.349829	.2254841	.4182801	1.095668	.1063787
#1	26.55574	2.417384	2.527865	25.75010	4.571404	4.966812
#2	26.65830	2.483538	2.526223	25.81683	4.644397	4.957473
#3	26.33784	2.451319	2.517290	25.60629	4.668881	4.966413

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCV06 Acquired: 4/10/2025 15:44:28 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.751129	4.698192	F 6.113281	4.901263	4.624206	4.709618
Stddev	.001916	.054816	.026628	.016841	.008163	.055742
%RSD	.0403243	1.166743	.4355706	.3436106	.1765297	1.183586
#1	4.748918	4.637397	6.110854	4.914638	4.624714	4.652190
#2	4.752189	4.743846	6.141039	4.882350	4.615800	4.763506
#3	4.752282	4.713332	6.087950	4.906801	4.632103	4.713157

Elem	Sr4077
Units	ppm
Avg	4.772335
Stddev	.012469
%RSD	.2612771
#1	4.758389
#2	4.776210
#3	4.782407

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3153.917	75888.05	14297.77	2044.284	4911.362
Stddev	4.211	431.40	97.61	11.542	7.189
%RSD	.1335180	.5684727	.6827237	.5645760	.1463678
#1	3151.592	75390.03	14408.86	2031.753	4908.123
#2	3158.777	76127.41	14258.70	2046.623	4919.600
#3	3151.380	76146.71	14225.73	2054.477	4906.362

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCB06 Acquired: 4/10/2025 15:48:39 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000532	-.002726	-.001121	-.001312	.0008289	-.005013	-.009198
Stddev	.0018022	.000571	.000389	.001445	.0005535	.000467	.000828
%RSD	3387.708	20.95435	34.71620	110.1321	66.78172	9.322187	9.004694
#1	-.001427	-.002112	-.000683	-.002663	.0007138	-.005429	-.008565
#2	.002060	-.002824	-.001427	.000212	.0003419	-.004507	-.008895
#3	-.000473	-.003242	-.001253	-.001486	.0014309	-.005102	-.010135

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000155	-.000076	-.017657	-.000236	-.000166	-.000409	-.005386
Stddev	.0000500	.000062	.006985	.000251	.000059	.000140	.003679
%RSD	323.3673	81.64763	39.56027	106.1360	35.81566	34.28146	68.30505
#1	-.000017	-.000091	-.024693	-.000427	-.000111	-.000363	-.007182
#2	.000073	-.000008	-.017555	-.000330	-.000158	-.000567	-.007821
#3	-.000010	-.000129	-.010724	.000048	-.000229	-.000298	-.001154

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005279	-.011210	-.000019	.0007534	-.269984	-.000805	-.002091
Stddev	.000053	.009785	.000107	.0000857	.014049	.001247	.000210
%RSD	.9955503	87.28176	564.1582	11.37772	5.203751	154.9495	10.03679
#1	-.005263	-.014673	.000101	.0007386	-.283605	.000249	-.002301
#2	-.005338	-.018793	-.000102	.0006761	-.270803	-.002181	-.001881
#3	-.005237	-.000165	-.000056	.0008456	-.255543	-.000482	-.002091

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.159313	-.002632	.0000149	-.000222	.0012751	.0012626	-.002263
Stddev	.020958	.000384	.0000702	.000854	.0004119	.0055554	.001876
%RSD	13.15536	14.59448	469.7263	384.8935	32.30700	439.9777	82.87741
#1	-.182528	-.002308	-.000060	-.000676	.0017147	.0054658	-.000836
#2	-.153623	-.003057	.000026	-.000753	.0008979	.0033578	-.001566
#3	-.141787	-.002532	.000079	.000764	.0012127	-.005036	-.004387

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCB06 Acquired: 4/10/2025 15:48:39 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0009861	-.003542	-.000277
Stddev	.0044133	.000602	.000057
%RSD	447.5310	16.98987	20.68765
#1	-.001949	-.003062	-.000300
#2	.006061	-.004217	-.000212
#3	-.001154	-.003347	-.000319

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3282.606	82536.40	14671.99	2201.877	5439.543
Stddev	14.099	114.38	78.72	6.300	21.626
%RSD	.4294973	.1385794	.5365359	.2861234	.3975691
#1	3295.757	82667.04	14708.36	2197.640	5456.059
#2	3284.341	82454.29	14725.95	2198.874	5447.506
#3	3267.720	82487.86	14581.66	2209.117	5415.065

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: WATER MDL-5 Acquired: 4/10/2025 15:52:59 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0040235	.0086178	.0021002	.0027784	.0129291	.0197929	.0137773
Stddev	.0014892	.0016663	.0010452	.0026308	.0025837	.0018308	.0005551
%RSD	37.01244	19.33484	49.76572	94.68534	19.98388	9.249758	4.029184
#1	.0025970	.0087511	.0010607	.0057369	.0099459	.0187913	.0134006
#2	.0055684	.0068890	.0031509	.0018962	.0144525	.0186815	.0135165
#3	.0039053	.0102135	.0020889	.0007022	.0143890	.0219060	.0144148

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013979	.0013060	.4573054	.0019170	.0071615	.0055788	.0201520
Stddev	.0000374	.0000572	.0056158	.0000609	.0002768	.0001766	.0061225
%RSD	2.677185	4.381664	1.228028	3.177445	3.864724	3.164933	30.38163
#1	.0013821	.0012555	.4508727	.0019644	.0071377	.0056685	.0237878
#2	.0013710	.0012943	.4612307	.0019383	.0068974	.0056924	.0130833
#3	.0014407	.0013682	.4598128	.0018483	.0074494	.0053753	.0235848

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005435	.5010994	.0093939	.0029971	.1870645	.0083377	.0085101
Stddev	.0002588	.0103671	.0002858	.0002626	.0056007	.0010772	.0003584
%RSD	47.61101	2.068878	3.042350	8.761286	2.993998	12.91965	4.211591
#1	.0004304	.4913956	.0090947	.0028651	.1806005	.0079345	.0083972
#2	.0003605	.4998804	.0096640	.0028267	.1901246	.0095583	.0089114
#3	.0008396	.5120221	.0094229	.0032995	.1904685	.0075202	.0082217

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2901734	.0187435	.0511392	.0081911	.0096674	.0907073	.0035053
Stddev	.0122579	.0006059	.0005587	.0002626	.0006195	.0051306	.0017459
%RSD	4.224324	3.232398	1.092442	3.205322	6.407565	5.656224	49.80862
#1	.3004330	.0188476	.0506419	.0083754	.0097168	.0960386	.0055193
#2	.2934880	.0180923	.0510321	.0083075	.0102607	.0858043	.0025776
#3	.2765990	.0192905	.0517437	.0078905	.0090248	.0902789	.0024191

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: WATER MDL-5 Acquired: 4/10/2025 15:52:59 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0025723	.0001341	.0044138
Stddev	.0010609	.0008327	.0000697
%RSD	41.24284	620.8001	1.579129
#1	.0033332	-.000751	.0044942
#2	.0030232	.000251	.0043769
#3	.0013604	.000902	.0043702

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3300.804	83108.72	15156.23	2223.240	5463.514
Stddev	5.354	122.60	141.89	9.370	3.027
%RSD	.1622055	.1475200	.9362120	.4214389	.0553952
#1	3305.930	83174.59	15127.99	2216.827	5462.721
#2	3301.235	82967.26	15310.12	2218.901	5466.858
#3	3295.248	83184.30	15030.58	2233.993	5460.963

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: SOIL MDL-4 Acquired: 4/10/2025 16:09:14 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0049587	.0068798	.0018826	.0017424	.0123722	.0257507	.0135319
Stddev	.0019888	.0008945	.0005111	.0012718	.0018063	.0033367	.0002490
%RSD	40.10671	13.00136	27.14668	72.99433	14.59948	12.95781	1.839734
#1	.0070924	.0078292	.0013023	.0031222	.0128493	.0286991	.0132444
#2	.0031566	.0067573	.0022657	.0006170	.0138921	.0221285	.0136737
#3	.0046271	.0060529	.0020797	.0014879	.0103753	.0264244	.0136775

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0014013	.0013005	.4609824	.0019785	.0071116	.0055477	.0185920
Stddev	.0000403	.0000188	.0073986	.0001681	.0001489	.0002847	.0035139
%RSD	2.875420	1.445575	1.604970	8.498672	2.093512	5.131657	18.90005
#1	.0014426	.0013222	.4596419	.0018202	.0070080	.0052215	.0225379
#2	.0013621	.0012885	.4543456	.0021550	.0072822	.0057459	.0174371
#3	.0013992	.0012909	.4689596	.0019604	.0070447	.0056758	.0158008

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0017088	.5061459	.0094145	.0031633	.1882874	.0084191	.0087130
Stddev	.0006039	.0109847	.0001595	.0002256	.0025396	.0007502	.0000709
%RSD	35.33930	2.170255	1.694552	7.131814	1.348766	8.910754	.8139369
#1	.0010553	.5027488	.0095379	.0034070	.1911890	.0076169	.0087419
#2	.0022462	.4972611	.0094711	.0031213	.1872039	.0085373	.0087649
#3	.0018248	.5184278	.0092343	.0029617	.1864693	.0091033	.0086322

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2896234	.0191734	.0517097	.0089976	.0103676	.0950767	.0001001
Stddev	.0101135	.0004193	.0001915	.0005674	.0002349	.0104604	.0010178
%RSD	3.491943	2.186978	.3703976	6.306195	2.266030	11.00201	1016.438
#1	.2998792	.0188993	.0515000	.0092956	.0105070	.0947421	.0012200
#2	.2893323	.0189648	.0517538	.0083433	.0104994	.0847877	-.000151
#3	.2796586	.0196561	.0518754	.0093539	.0100963	.1057003	-.000769

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: SOIL MDL-4 Acquired: 4/10/2025 16:09:14 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0062634	.0001725	.0043774
Stddev	.0028628	.0011089	.0000239
%RSD	45.70665	642.6939	.5456699
#1	.0030592	-.000523	.0044009
#2	.0071616	-.000411	.0043532
#3	.0085695	.001451	.0043782

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3258.679	79301.19	14662.18	2154.381	5368.867
Stddev	1.806	151.59	67.93	14.312	4.515
%RSD	.0554204	.1911610	.4633127	.6643004	.0840964
#1	3259.251	79224.97	14718.05	2151.798	5369.983
#2	3256.656	79475.77	14681.92	2169.808	5372.719
#3	3260.129	79202.84	14586.56	2141.537	5363.898

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1746-01 Acquired: 4/10/2025 16:17:52 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0835356	.0175518	2.300192	-.045518	.0194045	107.6618	.4548957
Stddev	.0008229	.0006666	.005182	.002139	.0021375	.1435	.0014131
%RSD	.9850830	3.798056	.2252710	4.698997	11.01534	.1332582	.3106518
#1	.0827240	.0169526	2.294456	-.044083	.0179991	107.8118	.4558797
#2	.0843693	.0174330	2.304533	-.047976	.0218643	107.5259	.4555310
#3	.0835136	.0182699	2.301588	-.044494	.0183500	107.6477	.4532764

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0087367	-.000837	39.54465	.2287103	.2132220	1.782942	474.1039
Stddev	.0000559	.000578	.15838	.0003622	.0001836	.004457	1.3941
%RSD	.6393787	69.01484	.4005176	.1583703	.0860927	.2499945	.2940599
#1	.0087878	-.000583	39.55612	.2284877	.2130293	1.782110	472.6501
#2	.0087453	-.000430	39.69699	.2291283	.2132418	1.787757	474.2319
#3	.0086771	-.001498	39.38085	.2285150	.2133948	1.778960	475.4296

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.422678	51.61666	.3889980	.0132349	2.589314	.5152524	3.174960
Stddev	.012352	.11011	.0016672	.0004850	.001843	.0015365	.015514
%RSD	.2277895	.2133199	.4285835	3.664644	.0711891	.2982080	.4886317
#1	5.421596	51.70687	.3876919	.0127402	2.591407	.5169115	3.188990
#2	5.435535	51.64915	.3908758	.0132550	2.587935	.5138784	3.158299
#3	5.410902	51.49396	.3884262	.0137096	2.588599	.5149673	3.177591

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.776130	.6599913	.0024080	.2353944	6.265579	3.836564	8.811507
Stddev	.017296	.0025088	.0005550	.0014070	.015837	.022024	.031819
%RSD	.2224222	.3801299	23.04645	.5977375	.2527586	.5740439	.3611070
#1	7.757438	.6582611	.0030064	.2369105	6.275764	3.822161	8.836445
#2	7.791567	.6588441	.0023073	.2351423	6.273640	3.825615	8.822405
#3	7.779385	.6628686	.0019103	.2341305	6.247333	3.861917	8.775671

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1746-01 Acquired: 4/10/2025 16:17:52 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.036902	.4452730	.1905896
Stddev	.003879	.0003473	.0003333
%RSD	.3740831	.0779892	.1748612
#1	1.037943	.4452298	.1905148
#2	1.040155	.4449494	.1909539
#3	1.032609	.4456399	.1903000

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3397.041	83397.50	16592.67	2213.856	4623.488
Stddev	8.844	66.73	38.68	11.301	11.942
%RSD	.2603501	.0800148	.2331443	.5104509	.2582872
#1	3406.104	83357.45	16575.87	2200.846	4636.862
#2	3388.433	83360.52	16565.23	2219.484	4613.893
#3	3396.589	83474.54	16636.92	2221.236	4619.708

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1746-03 Acquired: 4/10/2025 16:22:05 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0445984	.0014404	.0956505	-.015871	-.002092	102.8554
Stddev	.0041228	.0013437	.0025970	.002911	.001334	.2019
%RSD	9.244252	93.28597	2.715116	18.33955	63.75880	.1962746
#1	.0471645	.0028652	.0926519	-.015082	-.002017	102.8039
#2	.0467879	.0001960	.0971826	-.019095	-.000798	103.0780
#3	.0398428	.0012601	.0971169	-.013436	-.003462	102.6842

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1335195	.0059146	-.006503	10.91897	.2072167	.0889767
Stddev	.0010351	.0000159	.000229	.01689	.0010870	.0006238
%RSD	.7752013	.2693237	3.516639	.1546752	.5245741	.7011115
#1	.1343866	.0059238	-.006512	10.93844	.2068232	.0896168
#2	.1323736	.0059238	-.006269	10.91019	.2063812	.0883705
#3	.1337984	.0058962	-.006726	10.90828	.2084456	.0889428

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2731150	193.5334	1.267854	47.40466	.1924330	.0078183
Stddev	.0002362	.6467	.001179	.06373	.0002890	.0001335
%RSD	.0864846	.3341711	.0929727	.1344397	.1502027	1.707380
#1	.2729675	192.9194	1.267860	47.35548	.1921126	.0078600
#2	.2729901	193.4723	1.269030	47.38185	.1926742	.0079259
#3	.2733874	194.2086	1.266673	47.47666	.1925122	.0076689

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.387876	.2439455	.5397365	13.83932	.3232059	.0038354
Stddev	.010622	.0015557	.0028038	.01841	.0014100	.0003799
%RSD	.4448482	.6377415	.5194759	.1329961	.4362629	9.904658
#1	2.391186	.2456613	.5418101	13.81811	.3224329	.0039439
#2	2.375993	.2435484	.5365464	13.85115	.3223513	.0034131
#3	2.396450	.2426268	.5408529	13.84869	.3248333	.0041493

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1746-03 Acquired: 4/10/2025 16:22:05 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000922	4.648098	6.510064	3.733486	F 20.95804	.2588705
Stddev	.000237	.008887	.040313	.004785	.03638	.0012305
%RSD	25.68029	.1911989	.6192385	.1281545	.1735763	.4753487
#1	-.000849	4.650236	6.467344	3.728262	20.91693	.2574929
#2	-.001187	4.655721	6.547435	3.734544	20.97110	.2592579
#3	-.000731	4.638337	6.515414	3.737654	20.98608	.2598607

Elem	Sr4077
Units	ppm
Avg	.0714022
Stddev	.0000739
%RSD	.1034934
#1	.0714346
#2	.0714543
#3	.0713176

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3286.668	78840.26	15826.59	2127.088	4865.768
Stddev	9.359	189.44	21.02	4.081	9.176
%RSD	.2847581	.2402882	.1327835	.1918758	.1885809
#1	3276.559	78915.96	15803.82	2122.381	4857.162
#2	3288.413	78980.15	15845.25	2129.253	4864.720
#3	3295.031	78624.68	15830.70	2129.632	4875.423

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PB167490BL Acquired: 4/10/2025 16:26:10 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004559	-.002496	-.001414	-.003431	.0002525	-.002347	-.009503
Stddev	.0015116	.001158	.000599	.001965	.0014678	.003967	.000360
%RSD	331.5708	46.38697	42.37698	57.28214	581.2424	169.0106	3.793023
#1	-.001157	-.001554	-.002052	-.005373	-.001202	-.006649	-.009088
#2	.000684	-.003788	-.000863	-.001443	.000226	-.001556	-.009736
#3	.001841	-.002146	-.001327	-.003478	.001734	.001165	-.009686

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000661	-.000133	-.015449	-.000238	-.000364	-.000391	.0005003
Stddev	.0000193	.000037	.003033	.000326	.000111	.000297	.0052291
%RSD	29.19425	27.86169	19.63491	137.3150	30.46635	75.98104	1045.240
#1	.0000876	-.000155	-.018949	-.000242	-.000478	-.000268	-.005340
#2	.0000606	-.000154	-.013581	.000091	-.000360	-.000175	.002092
#3	.0000502	-.000090	-.013817	-.000562	-.000256	-.000730	.004749

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003558	-.012483	-.000357	.0006034	-.340659	-.001054	-.001830
Stddev	.000210	.002252	.000043	.0003561	.004764	.000882	.000102
%RSD	5.902307	18.04243	12.09496	59.01465	1.398345	83.70822	5.567573
#1	-.003402	-.014908	-.000350	.0010071	-.343771	-.001234	-.001841
#2	-.003797	-.010457	-.000404	.0004687	-.343032	-.001832	-.001926
#3	-.003475	-.012083	-.000318	.0003343	-.335175	-.000096	-.001723

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.223327	-.006479	-.000405	-.000872	.0008426	.0003006	-.002443
Stddev	.006914	.000195	.000122	.000074	.0004214	.0050644	.000791
%RSD	3.095724	3.004925	30.09100	8.534112	50.01653	1685.025	32.37250
#1	-.229146	-.006608	-.000405	-.000953	.0006398	-.002756	-.002775
#2	-.225152	-.006573	-.000282	-.000807	.0013270	.006146	-.001541
#3	-.215684	-.006255	-.000526	-.000858	.0005609	-.002489	-.003015

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PB167490BL Acquired: 4/10/2025 16:26:10 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0012847	-.005144	-.000380
Stddev	.0031200	.000840	.000056
%RSD	242.8509	16.32655	14.87039
#1	.0029178	-.006089	-.000318
#2	.0032492	-.004860	-.000429
#3	-.002313	-.004482	-.000392

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3282.597	78849.75	14167.22	2165.689	5472.931
Stddev	11.185	130.81	71.69	8.961	11.004
%RSD	.3407235	.1658918	.5060213	.4137563	.2010626
#1	3279.573	78718.13	14144.86	2156.090	5473.310
#2	3294.983	78851.41	14247.42	2167.144	5483.741
#3	3273.235	78979.72	14109.37	2173.833	5461.742

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PB167490BS Acquired: 4/10/2025 16:39:31 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7745465	1.924436	.9179780	1.982508	.8100457	1.872501
Stddev	.0032124	.031383	.0011472	.010032	.0047135	.003909
%RSD	.4147402	1.630782	.1249664	.5060391	.5818761	.2087614
#1	.7777565	1.955065	.9187295	1.991260	.8154771	1.873919
#2	.7713318	1.892349	.9185469	1.971559	.8070265	1.875504
#3	.7745513	1.925895	.9166575	1.984705	.8076336	1.868081

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1639784	.1804996	.1839290	.9337657	.3924149	.1851046
Stddev	.0014985	.0015535	.0002358	.0120476	.0005850	.0006337
%RSD	.9138655	.8606789	.1282218	1.290211	.1490818	.3423410
#1	.1647327	.1803295	.1839561	.9326740	.3917446	.1854682
#2	.1649500	.1821312	.1836808	.9463220	.3928225	.1843729
#3	.1622526	.1790381	.1841501	.9223012	.3926776	.1854727

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3045438	2.799601	.1783515	1.818153	.4766853	.0731190
Stddev	.0002781	.008879	.0014877	.013008	.0018037	.0005194
%RSD	.0913295	.3171697	.8341328	.7154750	.3783845	.7102973
#1	.3046237	2.792846	.1780968	1.832395	.4784563	.0734339
#2	.3042345	2.796299	.1799501	1.815165	.4748506	.0734036
#3	.3047733	2.809659	.1770076	1.806898	.4767490	.0725196

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.690104	.2745307	.1990242	9.006831	.2708898	.3980671
Stddev	.035849	.0028238	.0011123	.057372	.0032787	.0021544
%RSD	1.332636	1.028587	.5588547	.6369841	1.210354	.5412053
#1	2.688323	.2738711	.1983432	9.011830	.2713426	.3992720
#2	2.655178	.2776259	.2003077	8.947122	.2739186	.3955798
#3	2.726811	.2720951	.1984216	9.061539	.2674083	.3993494

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PB167490BS Acquired: 4/10/2025 16:39:31 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6462179	.1826255	.7726328	5.554306	F -.010424	.1859371
Stddev	.0018674	.0009435	.0110139	.021577	.001650	.0016517
%RSD	.2889682	.5166163	1.425505	.3884733	15.82828	.8883098
#1	.6480996	.1831245	.7636063	5.568739	-.012130	.1862146
#2	.6443652	.1832147	.7693873	5.529501	-.010306	.1841642
#3	.6461888	.1815373	.7849048	5.564676	-.008836	.1874325

Elem	Sr4077
Units	ppm
Avg	.1810779
Stddev	.0003474
%RSD	.1918564
#1	.1812152
#2	.1813357
#3	.1806828

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3161.822	76924.57	13991.34	2052.026	5183.615
Stddev	11.278	133.18	108.02	2.408	15.272
%RSD	.3566848	.1731258	.7720439	.1173503	.2946284
#1	3152.747	76864.61	13973.07	2051.692	5171.679
#2	3174.448	77077.18	13893.62	2049.803	5200.825
#3	3158.270	76831.91	14107.33	2054.584	5178.340

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PB167517TB Acquired: 4/10/2025 16:43:33 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004846	-.006992	-.001117	.0002871	.0013805	.0125208
Stddev	.002741	.001938	.000171	.0020351	.0015464	.0027702
%RSD	56.55959	27.72254	15.35358	708.8395	112.0162	22.12455
#1	-.002040	-.008268	-.001164	.0018406	-.000153	.0110055
#2	-.004982	-.004761	-.001259	-.002017	.001355	.0157181
#3	-.007517	-.007945	-.000926	.001037	.002939	.0108389

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.011605	-.000170	-.000229	.0085231	-.000468	-.000592
Stddev	.000630	.000040	.000036	.0066801	.000149	.000227
%RSD	5.431343	23.59452	15.48828	78.37607	31.77495	38.40346
#1	-.011646	-.000130	-.000209	.0035067	-.000635	-.000369
#2	-.012214	-.000169	-.000270	.0059569	-.000419	-.000824
#3	-.010956	-.000210	-.000209	.0161058	-.000350	-.000582

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000617	.0240945	-.003090	.0096845	-.000459	.0008603
Stddev	.000443	.0036356	.000106	.0199481	.000113	.0002048
%RSD	71.80105	15.08884	3.416274	205.9806	24.54513	23.80540
#1	-.001096	.0200006	-.002971	-.011208	-.000576	.0010207
#2	-.000223	.0253365	-.003174	.011731	-.000351	.0009305
#3	-.000531	.0269462	-.003124	.028530	-.000450	.0006296

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.461330	-.001846	.0009160	-.358408	-.006784	-.000205
Stddev	.001071	.001002	.0000916	.009662	.000321	.000104
%RSD	.2321062	54.28126	9.996412	2.695685	4.738352	50.91083
#1	-.461993	-.001837	.0008143	-.359455	-.006413	-.000126
#2	-.460095	-.000848	.0009918	-.367503	-.006951	-.000166
#3	-.461903	-.002852	.0009421	-.348265	-.006987	-.000324

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PB167517TB Acquired: 4/10/2025 16:43:33 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000320	.0010189	.0167590	.0036072	F 14.76014	-.006459
Stddev	.000509	.0002192	.0055259	.0008908	.03182	.000571
%RSD	158.8776	21.51161	32.97275	24.69551	.2155743	8.838340
#1	.000174	.0010586	.0182533	.0043391	14.77605	-.006538
#2	-.000293	.0012155	.0213840	.0026153	14.72351	-.005853
#3	-.000842	.0007826	.0106396	.0038672	14.78087	-.006987

Elem	Sr4077
Units	ppm
Avg	-.000342
Stddev	.000070
%RSD	20.53066
#1	-.000324
#2	-.000419
#3	-.000283

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3208.516	79557.98	15780.80	2098.872	5474.087
Stddev	12.637	96.41	60.03	3.910	13.943
%RSD	.3938714	.1211803	.3803749	.1863063	.2547047
#1	3194.175	79494.54	15726.11	2096.449	5458.279
#2	3218.025	79668.92	15771.26	2103.383	5479.349
#3	3213.347	79510.47	15845.02	2096.783	5484.633

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1744-02 Acquired: 4/10/2025 16:47:52 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005155	-.008438	.0004068	.0017467	.0013650	.0162619	.1556782
Stddev	.001944	.000914	.0019593	.0006162	.0024428	.0050281	.0000900
%RSD	37.71962	10.82672	481.6613	35.27930	178.9532	30.91936	.0578233
#1	-.003250	-.009156	.0014167	.0013980	.0002942	.0107931	.1557597
#2	-.007136	-.007410	-.001851	.0024582	.0041603	.0173080	.1555816
#3	-.005078	-.008748	.001655	.0013840	-.000359	.0206846	.1556934

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000044	.0000608	8.527603	.0022662	.0008161	.0097917	.0134572
Stddev	.000029	.0000919	.022699	.0000694	.0000889	.0001040	.0054973
%RSD	65.31788	151.1942	.2661789	3.062537	10.89716	1.062140	40.85050
#1	-.000033	-.000041	8.535299	.0022250	.0009151	.0097305	.0197133
#2	-.000023	.000137	8.502057	.0023463	.0007431	.0099118	.0112596
#3	-.000077	.000087	8.545453	.0022273	.0007900	.0097328	.0093986

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8621366	.9411583	.0026539	.0004658	347.6210	-.002530	.0416353
Stddev	.0017886	.0040625	.0002203	.0000394	2.5527	.001309	.0003131
%RSD	.2074621	.4316488	8.300947	8.461020	.7343353	51.71958	.7520393
#1	.8626715	.9382056	.0024671	.0005081	350.2989	-.002391	.0417039
#2	.8601416	.9457914	.0028968	.0004590	347.3487	-.003903	.0412935
#3	.8635968	.9394779	.0025978	.0004302	345.2153	-.001297	.0419084

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7708686	.0087433	-.000182	-.000756	.0009193	.5998658	.0281083
Stddev	.0106958	.0002178	.000161	.000548	.0008430	.0071060	.0033515
%RSD	1.387503	2.491168	88.37506	72.46446	91.70051	1.184594	11.92347
#1	.7698404	.0089113	-.000177	-.000884	-.000036	.5970981	.0258747
#2	.7820415	.0084972	-.000346	-.000156	.001233	.5945600	.0264881
#3	.7607241	.0088214	-.000024	-.001229	.001560	.6079391	.0319620

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1744-02 Acquired: 4/10/2025 16:47:52 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1799271	-.007523	.0703640
Stddev	.0020565	.000349	.0001215
%RSD	1.142935	4.632364	.1727027
#1	.1822590	-.007922	.0702930
#2	.1783733	-.007275	.0702947
#3	.1791489	-.007372	.0705043

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2998.482	73624.64	14216.32	2002.564	4655.128
Stddev	3.775	332.17	68.81	12.708	5.302
%RSD	.1259119	.4511699	.4839881	.6345724	.1139047
#1	2996.997	74007.98	14275.49	2017.229	4650.982
#2	3002.774	73421.61	14232.64	1995.680	4661.103
#3	2995.674	73444.35	14140.82	1994.785	4653.298

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1744-04 Acquired: 4/10/2025 16:52:18 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0018050	-.006781	.0073879	.0019707	.0000622	.1208300	.4346153
Stddev	.0011749	.001556	.0013935	.0007570	.0005008	.0036745	.0006599
%RSD	65.09408	22.94088	18.86208	38.41537	805.6457	3.041082	.1518446
#1	.0004907	-.006175	.0089588	.0024529	-.000370	.1173425	.4342153
#2	.0027537	-.008548	.0069043	.0023609	-.000054	.1246667	.4342536
#3	.0021705	-.005620	.0063006	.0010981	.000611	.1204807	.4353770

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000749	-.000824	5.092565	.0000358	.0011571	.0100796	13.57094
Stddev	.0000163	.000043	.016478	.0000792	.0000409	.0004496	.04726
%RSD	21.78475	5.249046	.3235674	221.1987	3.535741	4.460581	.3482564
#1	.0000844	-.000845	5.074074	.0000470	.0011191	.0105303	13.51901
#2	.0000561	-.000854	5.105694	.0001089	.0011519	.0100773	13.58236
#3	.0000843	-.000775	5.097927	-.000048	.0012004	.0096311	13.61144

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1912062	1.209316	.0030462	.0007464	352.4438	.0008276	.2179503
Stddev	.0010886	.008435	.0000807	.0002620	3.5875	.0005625	.0015029
%RSD	.5693141	.6974736	2.650568	35.09606	1.017894	67.96337	.6895781
#1	.1919916	1.202329	.0029635	.0008380	352.8181	.0005337	.2194429
#2	.1899636	1.218686	.0030505	.0004510	355.8295	.0014762	.2164372
#3	.1916634	1.206932	.0031248	.0009503	348.6839	.0004730	.2179709

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.358511	.1091500	.0003259	-.001283	.0028892	.6414374	.0169313
Stddev	.009728	.0006335	.0001460	.000891	.0007051	.0026482	.0019391
%RSD	.7161006	.5803752	44.78098	69.42617	24.40530	.4128598	11.45256
#1	1.369208	.1084834	.0004648	-.000279	.0022226	.6444918	.0151953
#2	1.356130	.1097441	.0003393	-.001977	.0028178	.6400371	.0165747
#3	1.350194	.1092225	.0001738	-.001592	.0036274	.6397834	.0190239

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1744-04 Acquired: 4/10/2025 16:52:18 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6067970	-.002064	.0358079
Stddev	.0036124	.000772	.0001046
%RSD	.5953217	37.40498	.2920305
#1	.6026260	-.002648	.0358192
#2	.6088489	-.002356	.0356982
#3	.6089162	-.001189	.0359065

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3006.996	73044.42	13862.06	1971.017	4693.289
Stddev	4.222	203.16	49.21	2.394	6.147
%RSD	.1403957	.2781296	.3549690	.1214768	.1309710
#1	3004.390	73065.64	13830.97	1971.490	4688.606
#2	3011.867	72831.49	13836.42	1968.422	4700.249
#3	3004.732	73236.14	13918.79	1973.141	4691.011

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCV07 Acquired: 4/10/2025 16:56:43 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.915192	4.910137	4.741338	5.021254	5.104803	10.08484
Stddev	.017894	.058149	.012849	.020552	.019148	.01273
%RSD	.3640463	1.184266	.2710098	.4092929	.3750988	.1261884
#1	4.902274	4.845425	4.728210	5.000158	5.086711	10.07047
#2	4.907685	4.926983	4.741917	5.022388	5.102841	10.08936
#3	4.935616	4.958004	4.753889	5.041214	5.124856	10.09468

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.568702	.2409834	2.354417	24.15864	1.020500	2.458615
Stddev	.057941	.0008350	.006909	.06284	.003582	.008710
%RSD	.6055255	.3465132	.2934620	.2601098	.3510001	.3542601
#1	9.535862	.2417985	2.347675	24.23069	1.018090	2.449175
#2	9.635603	.2401297	2.354093	24.11516	1.018794	2.460330
#3	9.534642	.2410219	2.361483	24.13007	1.024616	2.466340

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.290446	4.817954	2.382141	24.53129	2.504086	1.261753
Stddev	.003274	.026286	.008254	.04708	.005629	.005198
%RSD	.2537154	.5455916	.3464754	.1919276	.2247815	.4119754
#1	1.288213	4.804940	2.391631	24.53191	2.497616	1.257498
#2	1.288920	4.800714	2.378152	24.48390	2.506782	1.260214
#3	1.294205	4.848209	2.376640	24.57806	2.507860	1.267547

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.52083	2.448149	2.555474	24.23686	4.905122	5.026483
Stddev	.17926	.009473	.019903	.12283	.015551	.023556
%RSD	.7024067	.3869314	.7788358	.5067945	.3170423	.4686307
#1	25.32027	2.454879	2.546769	24.10778	4.917566	5.005451
#2	25.57675	2.452251	2.541407	24.25050	4.887688	5.022061
#3	25.66546	2.437317	2.578246	24.35230	4.910112	5.051935

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCV07 Acquired: 4/10/2025 16:56:43 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV07 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.799573	4.690296	F 5.807119	4.987859	4.719225	4.704892
Stddev	.017813	.012942	.060571	.017196	.031013	.007739
%RSD	.3711344	.2759366	1.043055	.3447480	.6571531	.1644884
#1	4.780087	4.704842	5.737313	4.969016	4.687602	4.704185
#2	4.803615	4.685990	5.838246	4.991860	4.720484	4.712961
#3	4.815018	4.680055	5.845797	5.002702	4.749588	4.697531

Elem	Sr4077
Units	ppm
Avg	4.676422
Stddev	.039965
%RSD	.8546075
#1	4.705483
#2	4.692937
#3	4.630846

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3075.039	74981.54	13383.46	1994.318	4816.920
Stddev	9.215	336.29	38.33	12.788	14.386
%RSD	.2996605	.4484993	.2863707	.6411977	.2986620
#1	3080.374	75294.16	13341.28	1996.513	4830.130
#2	3080.343	75024.72	13416.16	2005.866	4819.036
#3	3064.399	74625.74	13392.94	1980.575	4801.592

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCB07 Acquired: 4/10/2025 17:00:54 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002921	-.002017	-.000774	-.000627	.0012414	-.000506	-.009740
Stddev	.0009891	.001753	.000386	.003673	.0010680	.002347	.001503
%RSD	338.5886	86.90538	49.87802	585.4435	86.02948	463.6928	15.42680
#1	-.000699	-.000490	-.001200	-.004847	.0023464	.001917	-.011027
#2	.001280	-.001630	-.000675	.001109	.0011630	-.002769	-.010106
#3	.000295	-.003931	-.000447	.001855	.0002148	-.000667	-.008089

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000734	-.000052	-.016382	-.000060	-.000173	-.000466	-.010993
Stddev	.0000135	.000062	.004083	.000188	.000150	.000183	.002470
%RSD	18.39833	119.4356	24.92483	313.7212	86.49912	39.25040	22.46715
#1	.0000707	-.000123	-.021051	.000079	-.000221	-.000270	-.012947
#2	.0000614	-.000024	-.013474	.000015	-.000005	-.000496	-.011816
#3	.0000880	-.000008	-.014623	-.000274	-.000294	-.000632	-.008217

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005102	-.006949	-.000023	.0008350	-.225739	-.001555	-.002077
Stddev	.000224	.007475	.000141	.0000202	.008087	.000927	.000121
%RSD	4.392887	107.5732	602.9888	2.414915	3.582462	59.59100	5.837863
#1	-.005162	.001390	-.000116	.0008582	-.223511	-.002278	-.001943
#2	-.004855	-.013048	.000138	.0008238	-.218999	-.001877	-.002109
#3	-.005291	-.009188	-.000092	.0008228	-.234706	-.000510	-.002179

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.179145	-.002847	.0002066	-.000357	.0014692	.0035232	-.002914
Stddev	.021244	.000754	.0001680	.000570	.0004138	.0042937	.002487
%RSD	11.85839	26.48350	81.32679	159.7415	28.16370	121.8671	85.34584
#1	-.203052	-.003698	.0003004	.000300	.0018786	.0064700	-.000122
#2	-.171951	-.002579	.0003068	-.000723	.0014778	.0055028	-.003727
#3	-.162433	-.002263	.0000126	-.000648	.0010512	-.001403	-.004893

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCB07 Acquired: 4/10/2025 17:00:54 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB07 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001468	-.002779	-.000225
Stddev	.002086	.000656	.000063
%RSD	142.0911	23.61437	28.15704
#1	.000390	-.003445	-.000293
#2	-.001069	-.002133	-.000169
#3	-.003726	-.002758	-.000212

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3233.828	78433.74	15125.35	2105.365	5392.858
Stddev	12.371	429.35	105.08	14.715	15.130
%RSD	.3825523	.5474087	.6947169	.6989316	.2805649
#1	3223.418	78015.41	15168.08	2089.737	5385.561
#2	3247.505	78412.50	15202.34	2107.404	5410.254
#3	3230.561	78873.33	15005.64	2118.954	5382.759

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1780-01 Acquired: 4/10/2025 17:05:13 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0028603	-.006697	.0157057	-.000412	.0022050	1.556775
Stddev	.0018615	.003018	.0005402	.002204	.0008272	.014453
%RSD	65.08036	45.06654	3.439421	535.2259	37.51413	.9284216
#1	.0031065	-.008989	.0156866	.001954	.0030693	1.572216
#2	.0008880	-.007825	.0162552	-.000782	.0021251	1.543570
#3	.0045864	-.003278	.0151754	-.002407	.0014207	1.554539

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0793509	.0000289	-.000615	89.22546	.0229608	.0025838
Stddev	.0000980	.0000190	.000096	.05433	.0004030	.0001530
%RSD	.1234901	65.92427	15.54636	.0608937	1.755217	5.921627
#1	.0794097	.0000300	-.000523	89.16514	.0234040	.0026125
#2	.0794051	.0000093	-.000714	89.24065	.0226163	.0027203
#3	.0792377	.0000473	-.000607	89.27057	.0228620	.0024184

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0149939	13.35245	.4043500	8.264430	.0207760	.0012595
Stddev	.0003554	.05830	.0001796	.032640	.0003849	.0003056
%RSD	2.370363	.4366043	.0444100	.3949490	1.852458	24.26157
#1	.0151943	13.35838	.4041590	8.272066	.0209543	.0009155
#2	.0152039	13.29141	.4043758	8.228648	.0203343	.0014995
#3	.0145836	13.40755	.4045153	8.292574	.0210394	.0013636

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	147.2774	.0029795	.2107093	12.21450	.0645400	.0030627
Stddev	.6739	.0009641	.0000909	.06592	.0006818	.0000872
%RSD	.4575419	32.35702	.0431532	.5397050	1.056362	2.847925
#1	147.6836	.0030039	.2106571	12.26463	.0649872	.0030430
#2	147.6491	.0039312	.2106564	12.13983	.0637553	.0031581
#3	146.4996	.0020035	.2108143	12.23905	.0648775	.0029870

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1780-01 Acquired: 4/10/2025 17:05:13 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002976	.1164251	F 13.88386	1.412426	4.527303	.0026552
Stddev	.000161	.0119038	.05847	.011558	.016128	.0007137
%RSD	5.394464	10.22442	.4211384	.8183152	.3562304	26.87807
#1	-.002806	.1137489	13.94507	1.413006	4.525216	.0033806
#2	-.003125	.1060871	13.82858	1.400589	4.512321	.0019539
#3	-.002999	.1294391	13.87795	1.423683	4.544373	.0026310

Elem	Sr4077
Units	ppm
Avg	.3789206
Stddev	.0003049
%RSD	.0804547
#1	.3792533
#2	.3786545
#3	.3788541

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3020.428	74034.77	15162.27	1965.840	4796.370
Stddev	5.817	341.99	57.01	11.882	11.028
%RSD	.1925912	.4619283	.3760037	.6044042	.2299200
#1	3013.728	73645.76	15108.28	1952.341	4797.295
#2	3024.189	74288.11	15156.65	1974.709	4806.906
#3	3023.368	74170.43	15221.89	1970.472	4784.909

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1780-02 Acquired: 4/10/2025 17:09:32 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002437	-.006933	.0240402	-.001038	.0032837	1.859733
Stddev	.001847	.000531	.0016146	.002184	.0006647	.012333
%RSD	75.78671	7.656528	6.716256	210.3123	20.24145	.6631406
#1	-.004463	-.006469	.0235054	.000548	.0040488	1.854761
#2	-.000850	-.007512	.0227608	-.003529	.0029532	1.873775
#3	-.001997	-.006818	.0258543	-.000134	.0028490	1.850662

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0842743	.0000810	-.000736	94.14235	.0086042	.0028816
Stddev	.0007561	.0000115	.000068	.61904	.0002589	.0000656
%RSD	.8972265	14.14770	9.194435	.6575536	3.008900	2.277944
#1	.0836812	.0000767	-.000739	93.49607	.0083070	.0028445
#2	.0840159	.0000723	-.000803	94.20101	.0087807	.0029574
#3	.0851257	.0000940	-.000667	94.72997	.0087250	.0028430

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0178499	14.87354	.4094273	8.521663	.0162621	.0011202
Stddev	.0001420	.08594	.0021719	.049289	.0002932	.0003223
%RSD	.7957128	.5778001	.5304657	.5783921	1.802765	28.76991
#1	.0176867	14.82547	.4071328	8.471881	.0159250	.0007494
#2	.0179179	14.82239	.4096978	8.522666	.0164040	.0012782
#3	.0179452	14.97276	.4114512	8.570443	.0164573	.0013330

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	161.1578	.0050029	.2228504	13.57929	.0669336	.0031589
Stddev	1.3092	.0010032	.0003329	.10948	.0006506	.0000594
%RSD	.8123590	20.05280	.1493920	.8062356	.9719861	1.879841
#1	162.5921	.0055598	.2228506	13.67534	.0662251	.0031768
#2	160.8541	.0038448	.2225174	13.46008	.0670714	.0030927
#3	160.0271	.0056042	.2231833	13.60246	.0675042	.0032073

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1780-02 Acquired: 4/10/2025 17:09:32 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002841	.1336294	F 15.04910	1.595884	4.671479	.0031000
Stddev	.000485	.0070911	.05475	.004301	.013159	.0008016
%RSD	17.06813	5.306510	.3638096	.2695173	.2816947	25.85701
#1	-.003282	.1258786	15.05623	1.591804	4.657494	.0022573
#2	-.002322	.1352184	15.09993	1.600377	4.683618	.0038528
#3	-.002919	.1397911	14.99113	1.595471	4.673324	.0031899

Elem	Sr4077
Units	ppm
Avg	.3887903
Stddev	.0015320
%RSD	.3940494
#1	.3876528
#2	.3881858
#3	.3905323

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2976.326	74962.21	15890.05	1991.843	4687.488
Stddev	5.710	58.31	77.23	5.262	9.776
%RSD	.1918346	.0777831	.4860496	.2641733	.2085624
#1	2982.815	74909.02	15977.40	1988.706	4697.746
#2	2974.088	74953.06	15861.93	1997.917	4686.438
#3	2972.074	75024.56	15830.81	1988.904	4678.278

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1780-02DUP Acquired: 4/10/2025 17:13:53 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000231	-.006935	.0255164	-.001666	.0024714	1.867514
Stddev	.003584	.001514	.0010531	.003665	.0022530	.002557
%RSD	1551.119	21.83744	4.127147	220.0270	91.16609	.1369019
#1	-.002936	-.005429	.0244694	.002436	.0047479	1.865954
#2	-.001590	-.008458	.0255043	-.004619	.0002426	1.870465
#3	.003833	-.006917	.0265755	-.002813	.0024235	1.866124

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0801006	.0001033	-.000744	93.53896	.0086969	.0029628
Stddev	.0004492	.0000233	.000069	.36037	.0001321	.0001369
%RSD	.5607467	22.55585	9.233934	.3852589	1.519205	4.621471
#1	.0800981	.0001174	-.000820	93.40099	.0088180	.0030466
#2	.0796528	.0001162	-.000686	93.26796	.0087168	.0028048
#3	.0805511	.0000764	-.000726	93.94793	.0085560	.0030369

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0179777	14.68827	.4043505	8.483834	.0161680	.0011761
Stddev	.0001400	.11115	.0004176	.055721	.0002444	.0000402
%RSD	.7787274	.7567058	.1032670	.6567896	1.511361	3.418826
#1	.0180997	14.78770	.4041248	8.490035	.0163958	.0011978
#2	.0178248	14.56828	.4048323	8.425273	.0159099	.0011297
#3	.0180085	14.70884	.4040943	8.536196	.0161984	.0012007

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	162.3788	.0046006	.2252809	13.42866	.0672755	.0033695
Stddev	2.7160	.0007354	.0025966	.08110	.0003832	.0001640
%RSD	1.672622	15.98522	1.152595	.6039606	.5696135	4.868232
#1	162.7217	.0037684	.2268325	13.49672	.0676848	.0032415
#2	159.5076	.0048701	.2222833	13.33892	.0669252	.0035544
#3	164.9070	.0051631	.2267270	13.45032	.0672165	.0033127

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1780-02DUP Acquired: 4/10/2025 17:13:53 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003228	.1351851	F 14.90913	1.569094	4.565893	.0023901
Stddev	.000244	.0005445	.12017	.003142	.010638	.0005422
%RSD	7.548472	.4028117	.8060484	.2002720	.2329854	22.68758
#1	-.002952	.1350975	14.98599	1.572246	4.553811	.0024583
#2	-.003318	.1346897	14.77064	1.565961	4.573856	.0018169
#3	-.003414	.1357682	14.97076	1.569075	4.570011	.0028950

Elem	Sr4077
Units	ppm
Avg	.3856575
Stddev	.0013532
%RSD	.3508906
#1	.3841156
#2	.3866482
#3	.3862086

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2966.303	73752.84	15536.93	1946.119	4711.895
Stddev	13.530	594.17	58.37	16.323	13.561
%RSD	.4561094	.8056293	.3756553	.8387692	.2878049
#1	2974.661	73221.66	15515.12	1932.090	4715.946
#2	2973.555	74394.50	15603.07	1964.035	4722.968
#3	2950.693	73642.34	15492.62	1942.232	4696.770

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1780-02LX5 Acquired: 4/10/2025 17:18:13 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000488	-.002974	.0040191	-.001209	.0019368	.3639103	.0064821
Stddev	.0025817	.001758	.0009160	.001851	.0013533	.0078498	.0002611
%RSD	5295.271	59.10696	22.79245	153.0957	69.87436	2.157079	4.028364
#1	.0010717	-.001453	.0033275	-.000013	.0004076	.3729641	.0067810
#2	.0019622	-.004898	.0050580	-.000273	.0029799	.3597593	.0062981
#3	-.002888	-.002570	.0036716	-.003341	.0024229	.3590074	.0063672

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000325	-.000311	19.39020	.0019304	.0005250	.0036207	2.959402
Stddev	.0000189	.000031	.05216	.0004600	.0001006	.0001723	.024299
%RSD	58.19061	9.881172	.2689986	23.83200	19.17083	4.758344	.8210933
#1	.0000297	-.000276	19.39502	.0014415	.0004583	.0035255	2.936426
#2	.0000152	-.000322	19.33579	.0019948	.0006407	.0035170	2.956943
#3	.0000527	-.000335	19.43978	.0023548	.0004758	.0038196	2.984838

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0803685	1.785978	.0035511	.0007784	31.23113	.0005041	.0451562
Stddev	.0007736	.010364	.0002223	.0001077	.08643	.0009254	.0004294
%RSD	.9625987	.5803193	6.260154	13.84094	.2767436	183.5827	.9509621
#1	.0810527	1.775893	.0037216	.0009003	31.18529	.0015664	.0452698
#2	.0795290	1.785438	.0036321	.0006958	31.33082	-.000127	.0446814
#3	.0805237	1.796601	.0032997	.0007392	31.17727	.000072	.0455174

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.361691	.0090050	.0003438	-.001310	.0257229	2.860866	.3152682
Stddev	.006835	.0001630	.0001352	.000599	.0022755	.013972	.0031307
%RSD	.2894002	1.810073	39.32846	45.72205	8.846127	.4883703	.9930229
#1	2.353904	.0091736	.0001992	-.001726	.0282559	2.863487	.3118603
#2	2.364477	.0088483	.0003650	-.000623	.0250609	2.873342	.3180166
#3	2.366693	.0089932	.0004672	-.001580	.0238518	2.845770	.3159277

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1780-02LX5 Acquired: 4/10/2025 17:18:13 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.9418781	-.000599	.0770752
Stddev	.0063032	.000951	.0000574
%RSD	.6692107	158.8730	.0744254
#1	.9346426	-.001659	.0770132
#2	.9461784	-.000316	.0771264
#3	.9448132	.000179	.0770861

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3130.070	76774.57	15511.78	2053.750	5108.140
Stddev	15.321	307.52	111.17	8.441	15.835
%RSD	.4894903	.4005535	.7166797	.4109876	.3099975
#1	3143.047	76650.09	15470.84	2058.489	5122.381
#2	3133.996	77124.82	15637.61	2058.756	5110.951
#3	3113.168	76548.81	15426.88	2044.004	5091.088

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1780-02MS Acquired: 4/10/2025 17:22:30 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7783736	1.781272	.9041255	1.902424	.8191575	3.785525
Stddev	.0018205	.007856	.0031355	.006581	.0019946	.011653
%RSD	.2338904	.4410163	.3467995	.3459170	.2434900	.3078250
#1	.7766727	1.790300	.9048835	1.896742	.8198870	3.798108
#2	.7781542	1.775996	.9006805	1.909634	.8206846	3.775105
#3	.7802939	1.777520	.9068125	1.900895	.8169009	3.783364

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2538454	.1813291	.1821420	93.89135	.3979722	.1900544
Stddev	.0031307	.0003439	.0007245	.42547	.0020257	.0011145
%RSD	1.233325	.1896364	.3977480	.4531520	.5090065	.5864318
#1	.2508566	.1813328	.1822148	93.40681	.3998463	.1896700
#2	.2535786	.1816712	.1813839	94.06329	.3982474	.1891829
#3	.2571010	.1809835	.1828273	94.20394	.3958230	.1913102

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3097436	15.73630	.5839631	10.37250	.4884075	.0727751
Stddev	.0001452	.09870	.0049615	.02065	.0012002	.0001827
%RSD	.0468686	.6271818	.8496264	.1990942	.2457354	.2510862
#1	.3099111	15.63705	.5784807	10.35816	.4874245	.0729747
#2	.3096660	15.73740	.5852641	10.39617	.4880530	.0726162
#3	.3096537	15.83443	.5881445	10.36317	.4897450	.0727343

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	146.0998	.2847954	.4197768	21.47870	.3266782	.4202768
Stddev	1.5138	.0008881	.0016240	.12859	.0012038	.0005844
%RSD	1.036151	.3118331	.3868838	.5986911	.3684928	.1390455
#1	144.9044	.2844576	.4210902	21.38773	.3254305	.4208598
#2	145.5929	.2841258	.4179609	21.42254	.3267712	.4196910
#3	147.8020	.2858029	.4202794	21.62581	.3278327	.4202797

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1780-02MS Acquired: 4/10/2025 17:22:30 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6477171	.3183509	F 14.00064	7.350869	4.521375	.1994748
Stddev	.0014789	.0067167	.02201	.011812	.006644	.0011681
%RSD	.2283181	2.109833	.1572358	.1606920	.1469419	.5855838
#1	.6475091	.3109876	14.01503	7.341114	4.517397	.1981438
#2	.6463532	.3241421	13.97529	7.347492	4.517682	.2003294
#3	.6492889	.3199229	14.01158	7.364002	4.529044	.1999511

Elem	Sr4077
Units	ppm
Avg	.5589139
Stddev	.0026927
%RSD	.4817810
#1	.5561972
#2	.5589624
#3	.5615820

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2976.628	73684.03	13559.61	1955.249	4690.544
Stddev	22.218	144.81	24.94	2.992	22.623
%RSD	.7464057	.1965231	.1839537	.1530052	.4823023
#1	2961.462	73547.15	13556.90	1957.191	4676.095
#2	2966.291	73835.64	13536.13	1956.752	4678.923
#3	3002.131	73669.29	13585.80	1951.804	4716.616

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1780-02MSD Acquired: 4/10/2025 17:26:38 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7688239	1.747450	.8982494	1.877037	.8114362	3.743776
Stddev	.0096353	.014303	.0024060	.002242	.0019869	.022458
%RSD	1.253248	.8185068	.2678491	.1194309	.2448618	.5998734
#1	.7784459	1.737544	.8954986	1.875969	.8126623	3.766430
#2	.7591754	1.740959	.8992885	1.875528	.8125024	3.743380
#3	.7688503	1.763848	.8999612	1.879613	.8091438	3.721519

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2685671	.1654632	.1801319	94.67709	.3975560	.1887909
Stddev	.0007941	.0005923	.0003995	.22242	.0007531	.0004877
%RSD	.2956734	.3579862	.2218096	.2349221	.1894275	.2583364
#1	.2694025	.1650290	.1798310	94.50081	.3970379	.1883725
#2	.2678221	.1652227	.1799795	94.60349	.3984199	.1886736
#3	.2684767	.1661380	.1805853	94.92698	.3972102	.1893266

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3077010	17.51978	.5901761	10.28115	.4844051	.0727691
Stddev	.0005998	.01302	.0009013	.03690	.0012854	.0010555
%RSD	.1949413	.0742906	.1527115	.3589563	.2653493	1.450517
#1	.3079994	17.52580	.5892676	10.24445	.4841030	.0716648
#2	.3070105	17.52870	.5901907	10.28074	.4832977	.0728746
#3	.3080931	17.50485	.5910699	10.31825	.4858146	.0737680

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	158.5945	.2888961	.4234448	24.26403	.3048851	.4204350
Stddev	1.5819	.0017329	.0010482	.05537	.0013208	.0010801
%RSD	.9974672	.5998470	.2475463	.2282016	.4332259	.2569033
#1	160.2332	.2881006	.4246294	24.23698	.3047508	.4212491
#2	157.0763	.2908840	.4230675	24.32773	.3036365	.4192097
#3	158.4739	.2877038	.4226374	24.22739	.3062680	.4208463

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1780-02MSD Acquired: 4/10/2025 17:26:38 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6419131	.3230233	F 15.37628	7.217365	4.436116	.2033968
Stddev	.0008757	.0063112	.06879	.061601	.020959	.0003219
%RSD	.1364244	1.953802	.4473881	.8535142	.4724616	.1582836
#1	.6410828	.3230742	15.45567	7.153751	4.414099	.2036819
#2	.6428281	.3293089	15.33443	7.221609	4.438422	.2030476
#3	.6418285	.3166868	15.33873	7.276734	4.455826	.2034610

Elem	Sr4077
Units	ppm
Avg	.5798633
Stddev	.0008336
%RSD	.1437544
#1	.5791588
#2	.5807835
#3	.5796475

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2994.770	73810.29	15066.92	1982.207	4718.864
Stddev	22.438	81.96	40.62	1.371	23.904
%RSD	.7492329	.1110363	.2695899	.0691906	.5065700
#1	2968.916	73716.67	15086.12	1981.157	4691.269
#2	3006.229	73845.09	15094.38	1983.758	4733.228
#3	3009.164	73869.10	15020.26	1981.704	4732.094

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1780-02A Acquired: 4/10/2025 17:30:48 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7743341	1.771185	.8965975	1.902290	.8198247	3.727198
Stddev	.0029335	.018978	.0021334	.004677	.0026672	.017679
%RSD	.3788392	1.071478	.2379400	.2458650	.3253333	.4743236
#1	.7739799	1.781278	.8974668	1.904679	.8194289	3.747597
#2	.7715938	1.749293	.8941667	1.896901	.8173776	3.716322
#3	.7774286	1.782983	.8981589	1.905291	.8226677	3.717675

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2633218	.1669204	.1810300	93.82973	.3952475	.1899585
Stddev	.0004112	.0009730	.0005354	.16782	.0009519	.0000121
%RSD	.1561693	.5829222	.2957550	.1788543	.2408283	.0063692
#1	.2633520	.1677766	.1810714	93.74497	.3945281	.1899543
#2	.2628964	.1671222	.1804751	94.02303	.3963268	.1899722
#3	.2637172	.1658622	.1815435	93.72120	.3948875	.1899491

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3096764	17.04861	.5863301	10.18652	.4859220	.0719715
Stddev	.0001786	.08701	.0005170	.00784	.0012760	.0002213
%RSD	.0576678	.5103676	.0881704	.0770034	.2626020	.3075311
#1	.3095226	16.95377	.5869264	10.18402	.4861659	.0721177
#2	.3096343	17.12475	.5860555	10.18022	.4845416	.0720800
#3	.3098723	17.06731	.5860084	10.19530	.4870585	.0717169

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	156.9419	.2843988	.4208141	23.59994	.3054136	.4197634
Stddev	.8337	.0023622	.0004268	.05684	.0004394	.0010466
%RSD	.5311928	.8305894	.1014309	.2408409	.1438585	.2493280
#1	156.0658	.2864613	.4204849	23.53580	.3059153	.4209667
#2	157.0348	.2849133	.4212964	23.61995	.3050970	.4192597
#3	157.7253	.2818217	.4206611	23.64407	.3052286	.4190640

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: Q1780-02A Acquired: 4/10/2025 17:30:48 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6450575	.3124806	F 15.04654	7.418416	4.559137	.2019356
Stddev	.0025494	.0002205	.01186	.043708	.019580	.0004520
%RSD	.3952218	.0705734	.0788271	.5891784	.4294579	.2238201
#1	.6450057	.3126926	15.03608	7.442296	4.573886	.2020311
#2	.6425345	.3124970	15.05943	7.367970	4.536923	.2014436
#3	.6476325	.3122524	15.04411	7.444981	4.566600	.2023323

Elem	Sr4077
Units	ppm
Avg	.5739677
Stddev	.0007801
%RSD	.1359112
#1	.5732289
#2	.5747834
#3	.5738909

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2961.492	73653.54	14757.35	1961.349	4659.939
Stddev	4.848	285.83	26.05	14.909	9.944
%RSD	.1637154	.3880723	.1765445	.7601657	.2133866
#1	2957.715	73967.69	14743.33	1977.058	4651.698
#2	2966.960	73408.83	14741.31	1947.394	4670.983
#3	2959.802	73584.10	14787.41	1959.594	4657.135

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: SOIL MDL-5 Acquired: 4/10/2025 17:34:56 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055670	.0077178	.0020699	.0014118	.0137871	.0286700	.0120505
Stddev	.0016856	.0000898	.0003394	.0025435	.0010232	.0031025	.0008646
%RSD	30.27863	1.163327	16.39893	180.1621	7.421663	10.82131	7.174751
#1	.0036345	.0076730	.0017628	.0043443	.0148996	.0274427	.0119661
#2	.0067345	.0078211	.0020124	.0000872	.0128864	.0263688	.0112313
#3	.0063319	.0076591	.0024344	-.000196	.0135752	.0321983	.0129543

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0014336	.0013037	.4653899	.0020433	.0070341	.0056550	.0280391
Stddev	.0000096	.0001072	.0054171	.0001875	.0000891	.0002465	.0022740
%RSD	.6701843	8.223388	1.163996	9.174778	1.266957	4.359009	8.110229
#1	.0014446	.0012862	.4704868	.0018551	.0069447	.0053723	.0278439
#2	.0014286	.0014186	.4659818	.0020449	.0070347	.0058249	.0258690
#3	.0014274	.0012063	.4597012	.0022300	.0071229	.0057678	.0304045

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000140	.5075543	.0094568	.0035996	.3797858	.0087063	.0096505
Stddev	.000489	.0031109	.0002237	.0001402	.0080147	.0014919	.0003633
%RSD	349.1991	.6129298	2.365802	3.894039	2.110325	17.13541	3.764827
#1	.000369	.5083631	.0095535	.0035515	.3705408	.0080337	.0093458
#2	-.000183	.5041188	.0092010	.0034897	.3840433	.0076692	.0095532
#3	-.000607	.5101809	.0096159	.0037574	.3847732	.0104161	.0100526

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3692640	.0171233	.0525872	.0090837	.0111097	.1042414	.0038124
Stddev	.0305031	.0009320	.0003877	.0006492	.0003678	.0009655	.0016861
%RSD	8.260515	5.442686	.7372528	7.147240	3.311003	.9262001	44.22671
#1	.3667914	.0173556	.0528374	.0091464	.0106881	.1035083	.0039593
#2	.4009282	.0160971	.0521406	.0084053	.0113657	.1053353	.0054203
#3	.3400725	.0179171	.0527837	.0096992	.0112752	.1038806	.0020577

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: SOIL MDL-5 Acquired: 4/10/2025 17:34:56 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0104516	.0037148	.0043803
Stddev	.0008567	.0015717	.0000395
%RSD	8.196566	42.30998	.9028604
#1	.0098310	.0026796	.0043377
#2	.0114290	.0055233	.0043876
#3	.0100949	.0029413	.0044158

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3258.909	79217.12	14686.36	2124.785	5436.227
Stddev	12.875	212.64	8.01	8.418	19.486
%RSD	.3950573	.2684309	.0545176	.3961917	.3584488
#1	3247.121	79309.55	14680.00	2133.950	5417.547
#2	3272.647	78973.91	14695.35	2117.396	5456.430
#3	3256.959	79367.91	14683.73	2123.010	5434.703

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PB167554BL Acquired: 4/10/2025 17:39:16 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000419	-.002293	-.000568	-.002901	-.000495	.0014643	-.010964
Stddev	.001251	.000613	.000574	.000481	.000694	.0033684	.000624
%RSD	298.7952	26.74854	101.1695	16.56426	140.0993	230.0272	5.688535
#1	-.001151	-.001827	.000005	-.003085	-.000783	.0028346	-.010791
#2	-.001131	-.002988	-.000565	-.003262	.000296	.0039316	-.010445
#3	.001026	-.002064	-.001144	-.002356	-.000998	-.002373	-.011656

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000604	-.000117	-.023595	.0000114	-.000209	-.000205	-.006647
Stddev	.0000202	.000055	.002668	.0002729	.000071	.000511	.001059
%RSD	33.45410	46.96282	11.30835	2389.341	33.90695	248.8061	15.93529
#1	.0000394	-.000141	-.020525	-.000284	-.000220	.000377	-.005957
#2	.0000620	-.000054	-.025354	.000254	-.000134	-.000417	-.007867
#3	.0000798	-.000156	-.024907	.000065	-.000274	-.000577	-.006117

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005304	-.012048	-.000353	.0009050	-.220600	-.001128	-.001947
Stddev	.000189	.009169	.000257	.0000727	.003385	.000790	.000076
%RSD	3.570317	76.10294	72.74804	8.033653	1.534501	69.97516	3.903826
#1	-.005518	-.022565	-.000611	.0009614	-.224006	-.000545	-.001997
#2	-.005156	-.005727	-.000097	.0008230	-.220556	-.002027	-.001984
#3	-.005240	-.007853	-.000352	.0009307	-.217237	-.000813	-.001859

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.122735	-.007295	-.000502	-.000283	.0015630	.0061730	-.003774
Stddev	.012923	.000594	.000023	.000248	.0004801	.0050544	.002160
%RSD	10.52953	8.144532	4.550223	87.67971	30.71420	81.88017	57.23647
#1	-.133493	-.007964	-.000525	-.000545	.0019576	.0003899	-.004155
#2	-.126312	-.007097	-.000500	-.000051	.0010285	.0083829	-.005719
#3	-.108399	-.006826	-.000480	-.000253	.0017030	.0097461	-.001449

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PB167554BL Acquired: 4/10/2025 17:39:16 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0019005	-.003949	-.000384
Stddev	.0018886	.001494	.000030
%RSD	99.37680	37.84146	7.858884
#1	.0007220	-.002368	-.000407
#2	.0040788	-.005339	-.000350
#3	.0009006	-.004139	-.000395

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3210.131	77481.25	14123.41	2086.392	5375.870
Stddev	5.960	223.16	61.03	15.358	13.774
%RSD	.1856726	.2880231	.4320845	.7361185	.2562226
#1	3211.684	77673.37	14069.23	2104.115	5385.965
#2	3215.160	77533.92	14111.47	2078.063	5381.467
#3	3203.547	77236.46	14189.52	2076.997	5360.178

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PB167554BS Acquired: 4/10/2025 17:43:35 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7426763	1.877368	.8960891	1.895875	.7774065	1.811402
Stddev	.0047833	.016813	.0023223	.006321	.0023240	.013574
%RSD	.6440634	.8955397	.2591592	.3334232	.2989382	.7493545
#1	.7431474	1.862135	.8959048	1.893778	.7755908	1.820985
#2	.7472066	1.895407	.8938645	1.902979	.7766032	1.795869
#3	.7376748	1.874562	.8984981	1.890869	.7800256	1.817353

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F .1639992	.1772460	.1803204	.9032919	.3815674	.1828458
Stddev	.0010743	.0012822	.0003874	.0084609	.0000650	.0007939
%RSD	.6550481	.7233958	.2148417	.9366738	.0170328	.4342183
#1	.1651759	.1757709	.1799754	.8936771	.3815305	.1819328
#2	.1630709	.1778735	.1802462	.9096005	.3816425	.1832303
#3	.1637507	.1780935	.1807395	.9065980	.3815293	.1833743

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2958616	2.746436	.1755574	1.796045	.4654734	.0707559
Stddev	.0006693	.019387	.0005503	.030002	.0010559	.0002241
%RSD	.2262288	.7058808	.3134824	1.670463	.2268446	.3167353
#1	.2963918	2.768810	.1761929	1.810213	.4650601	.0706591
#2	.2951096	2.735873	.1752480	1.761582	.4646866	.0705965
#3	.2960836	2.734625	.1752315	1.816339	.4666734	.0710122

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.561057	.2692628	.1926038	8.774481	.2637743	.3859323
Stddev	.030762	.0011570	.0010172	.093715	.0022931	.0011603
%RSD	1.201150	.4296793	.5281349	1.068037	.8693518	.3006453
#1	2.593714	.2684460	.1927449	8.878841	.2611591	.3859935
#2	2.532627	.2687558	.1935432	8.747084	.2647228	.3847426
#3	2.556829	.2705868	.1915235	8.697519	.2654410	.3870607

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: PB167554BS Acquired: 4/10/2025 17:43:35 Type: Unk
Method: NON EPA-6010-200.7(v2917) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6355101	.1797376	F .7518060	5.492204	F -.006710	.1792328
Stddev	.0015866	.0006501	.0038796	.020495	.000330	.0013334
%RSD	.2496549	.3616940	.5160317	.3731567	4.922044	.7439353
#1	.6337863	.1804686	.7547602	5.468588	-.006439	.1807719
#2	.6369092	.1792243	.7474125	5.502685	-.006613	.1784999
#3	.6358349	.1795199	.7532452	5.505338	-.007078	.1784266

Elem	Sr4077
Units	ppm
Avg	.1780697
Stddev	.0007734
%RSD	.4342993
#1	.1789612
#2	.1775790
#3	.1776689

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3225.450	78780.13	14201.36	2137.582	5238.296
Stddev	2.138	122.81	93.17	9.180	1.829
%RSD	.0662916	.1558927	.6560636	.4294771	.0349183
#1	3223.370	78644.59	14308.86	2127.127	5239.725
#2	3225.337	78884.01	14143.90	2144.325	5236.234
#3	3227.642	78811.80	14151.33	2141.294	5238.927

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCV08 Acquired: 4/10/2025 17:56:40 Type: Unk
Method: NON EPA-6010-200.7(v2904) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV08 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.886601	4.871786	4.739570	4.975057	5.062344	10.14301
Stddev	.011337	.016233	.004994	.016276	.014889	.24600
%RSD	.2320024	.3331998	.1053664	.3271579	.2941190	2.425307
#1	4.884504	4.862594	4.738663	4.974919	5.050574	10.34482
#2	4.876459	4.862235	4.735091	4.958850	5.057374	10.21522
#3	4.898840	4.890529	4.744955	4.991401	5.079082	9.86899

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.471310	.2330354	2.357105	23.86373	1.026133	2.464132
Stddev	.126674	.0040982	.002512	.43446	.002580	.003244
%RSD	1.337446	1.758610	.1065760	1.820594	.2514494	.1316655
#1	9.545882	.2360747	2.354270	24.20441	1.027857	2.461555
#2	9.542999	.2346571	2.357994	24.01232	1.023167	2.463065
#3	9.325049	.2283746	2.359053	23.37447	1.027376	2.467775

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.284879	5.025078	2.327836	24.26130	2.497462	1.263858
Stddev	.003172	.045773	.043651	.47963	.003589	.002482
%RSD	.2468952	.9108926	1.875169	1.976933	.1436963	.1963618
#1	1.285324	5.072844	2.358900	24.70257	2.493320	1.266250
#2	1.281507	5.020793	2.346679	24.33051	2.499638	1.264029
#3	1.287805	4.981599	2.277929	23.75083	2.499429	1.261295

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.27594	2.414985	2.548627	25.12851	4.689674	4.991639
Stddev	.03774	.034530	.011007	.04415	.088665	.010711
%RSD	.1436132	1.429836	.4318839	.1757099	1.890647	.2145735
#1	26.30908	2.440409	2.561308	25.16780	4.754929	4.987130
#2	26.23487	2.428873	2.541546	25.08073	4.725369	4.983920
#3	26.28386	2.375673	2.543028	25.13699	4.588725	5.003867

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCV08 Acquired: 4/10/2025 17:56:40 Type: Unk
Method: NON EPA-6010-200.7(v2904) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV08 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.810762	4.619296	F 6.049095	5.028366	4.743979	4.613389
Stddev	.008851	.080327	.022947	.013255	.001289	.072363
%RSD	.1839905	1.738952	.3793497	.2635959	.0271744	1.568550
#1	4.801090	4.681630	6.038813	5.035802	4.742603	4.668098
#2	4.812738	4.647614	6.033087	5.013063	4.744175	4.640731
#3	4.818459	4.528645	6.075385	5.036232	4.745159	4.531339

Elem	Sr4077
Units	ppm
Avg	4.605377
Stddev	.103561
%RSD	2.248703
#1	4.657455
#2	4.672562
#3	4.486113

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3095.032	74637.41	14005.00	2009.866	4821.347
Stddev	11.893	136.46	244.57	9.091	16.474
%RSD	.3842566	.1828345	1.746313	.4523292	.3416936
#1	3098.804	74490.66	13814.75	2003.234	4830.895
#2	3104.580	74760.49	13919.38	2020.229	4830.821
#3	3081.710	74661.08	14280.87	2006.134	4802.324

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCB08 Acquired: 4/10/2025 18:00:48 Type: Unk
Method: NON EPA-6010-200.7(v2904) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB08 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003571	-.001962	-.000539	-.002426	-.000051	.0049162	-.009184
Stddev	.0011269	.000417	.000544	.001107	.001025	.0103767	.000795
%RSD	315.5449	21.27973	100.9390	45.64457	2013.891	211.0726	8.654441
#1	-.000466	-.001591	-.000179	-.003694	.001131	-.001068	-.009332
#2	.001642	-.001880	-.001165	-.001651	-.000709	-.001082	-.008325
#3	-.000105	-.002414	-.000273	-.001933	-.000575	.016898	-.009894

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000304	.0000399	-.014995	-.000251	-.000141	-.000288	-.002361
Stddev	.0000279	.0000770	.002140	.000190	.000044	.000242	.003596
%RSD	91.58680	192.9728	14.26941	75.77320	31.17838	84.06606	152.2841
#1	.0000626	.0000981	-.015306	-.000402	-.000140	-.000566	.000704
#2	.0000143	-.000047	-.016962	-.000314	-.000097	-.000172	-.006320
#3	.0000144	.000069	-.012716	-.000037	-.000184	-.000126	-.001469

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005180	-.010764	-.000153	.0009207	-.286946	-.002389	-.001772
Stddev	.000195	.007636	.000146	.0000669	.008548	.000935	.000058
%RSD	3.768011	70.93956	95.51447	7.264597	2.979104	39.15491	3.267476
#1	-.005397	-.019558	-.000228	.0008440	-.295821	-.001901	-.001760
#2	-.005125	-.005803	-.000247	.0009667	-.278766	-.001798	-.001721
#3	-.005018	-.006933	.000015	.0009515	-.286250	-.003467	-.001835

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.206899	-.001885	.0003659	-.000002	.0013702	.0084823	-.005021
Stddev	.012435	.000149	.0000571	.000730	.0004189	.0044737	.003101
%RSD	6.010250	7.899183	15.60264	29301.04	30.57012	52.74073	61.76548
#1	-.219423	-.002036	.0003258	.000089	.0017863	.0121492	-.002452
#2	-.194554	-.001879	.0003406	-.000774	.0009486	.0034979	-.008466
#3	-.206720	-.001739	.0004313	.000677	.0013757	.0098000	-.004146

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCB08 Acquired: 4/10/2025 18:00:48 Type: Unk
Method: NON EPA-6010-200.7(v2904) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB08 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000060	-.004357	-.000132
Stddev	.001775	.000968	.000069
%RSD	2965.001	22.21732	52.23155
#1	.001532	-.003356	-.000123
#2	-.001973	-.004428	-.000205
#3	.000262	-.005288	-.000068

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3246.693	78262.84	16104.64	2114.489	5430.726
Stddev	2.540	132.30	105.92	12.862	4.545
%RSD	.0782226	.1690453	.6577109	.6082873	.0836921
#1	3247.898	78159.45	16024.58	2107.793	5431.545
#2	3248.405	78411.93	16064.59	2129.317	5434.806
#3	3243.775	78217.14	16224.75	2106.356	5425.827

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: LR1 Acquired: 4/10/2025 18:05:04 Type: Unk
Method: NON EPA-6010-200.7(v2918) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0750164	.0936123	6.009374	-.000295	.0034484	1895.656	.0900504
Stddev	.0113373	.0111121	.015575	.012884	.0088513	23.146	.0003968
%RSD	15.11306	11.87032	.2591805	4370.660	256.6836	1.220987	.4406135
#1	.0879649	.0811985	5.995821	.013712	.0112760	1883.423	.0896343
#2	.0668726	.0970084	6.026389	-.011641	-.006157	1922.351	.0900924
#3	.0702119	.1026301	6.005912	-.002955	.005226	1881.194	.0904245

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055579	-.042490	1639.112	.0214786	.0221693	-.097351	1092.438
Stddev	.0001254	.001768	12.566	.0002472	.0008427	.003670	7.729
%RSD	2.256026	4.160765	.7666366	1.151052	3.801276	3.769583	.7074570
#1	.0054588	-.044324	1624.710	.0217574	.0213711	-.101123	1100.276
#2	.0056989	-.042349	1644.779	.0213926	.0230504	-.097137	1092.215
#3	.0055161	-.040797	1647.846	.0212859	.0220863	-.093793	1084.823

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.076314	1813.668	.0163136	.0610655	1937.875	.0114768	.3845696
Stddev	.000550	38.252	.0008234	.0012560	33.034	.0000996	.0047108
%RSD	.7212408	2.109086	5.047146	2.056776	1.704666	.8674822	1.224960
#1	-.076439	1857.827	.0170341	.0620720	1970.912	.0115766	.3802564
#2	-.076791	1792.410	.0164906	.0614665	1937.869	.0113775	.3895966
#3	-.075712	1790.766	.0154162	.0596580	1904.844	.0114761	.3838558

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1215.072	1.815307	-.007446	-.009144	-.033482	.2082371	.0650745
Stddev	3.149	.023833	.000789	.004313	.000642	.0086712	.0069311
%RSD	.2591841	1.312892	10.59903	47.16534	1.917298	4.164103	10.65099
#1	1218.527	1.841056	-.007545	-.011947	-.033070	.2181923	.0686024
#2	1214.327	1.810845	-.006612	-.011307	-.033153	.2041871	.0570891
#3	1212.362	1.794021	-.008181	-.004178	-.034221	.2023319	.0695318

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: LR1 Acquired: 4/10/2025 18:05:04 Type: Unk
Method: NON EPA-6010-200.7(v2918) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.228560	.1820174	.0103018
Stddev	.017803	.0060066	.0000612
%RSD	7.789046	3.300002	.5939535
#1	-.249088	.1883523	.0103689
#2	-.219235	.1812955	.0102491
#3	-.217356	.1764044	.0102873

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2246.588	54472.37	12506.50	1461.509	2939.809
Stddev	10.035	334.72	36.89	9.121	6.061
%RSD	.4466677	.6144731	.2949631	.6240922	.2061726
#1	2243.915	54088.91	12548.17	1451.010	2941.494
#2	2257.688	54622.26	12493.34	1467.475	2944.849
#3	2238.160	54705.96	12478.00	1466.043	2933.084

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: LR2 Acquired: 4/10/2025 18:10:01 Type: Unk
Method: NON EPA-6010-200.7(v2918) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0091964	-.020949	225.6856	.0012375	-.009396	.1755365	108.6091
Stddev	.0026873	.001577	.5597	.0007503	.002867	.0069980	.3359
%RSD	29.22180	7.527519	.2480156	60.63092	30.51651	3.986639	.3092504
#1	.0089470	-.021340	226.2080	.0005749	-.012687	.1676646	108.6545
#2	.0066424	-.019213	225.0948	.0020521	-.008067	.1810526	108.9200
#3	.0119997	-.022293	225.7539	.0010854	-.007435	.1778923	108.2529

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001768	-.003469	.2288537	.0099243	-.000179	237.8426	.0680672
Stddev	.000045	.000117	.0098237	.0000634	.000301	.6263	.0042982
%RSD	2.539235	3.377019	4.292568	.6392518	168.7087	.2633431	6.314702
#1	-.001716	-.003553	.2236040	.0099190	-.000525	237.9862	.0636313
#2	-.001792	-.003336	.2401869	.0098637	-.000029	237.1569	.0722131
#3	-.001795	-.003519	.2227702	.0099902	.000019	238.3847	.0683572

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	41.94433	.0274686	51.81543	.0014011	-.021559	-.011208	32.49553
Stddev	.17307	.0181246	.13676	.0002154	.013584	.001185	.17509
%RSD	.4126250	65.98293	.2639434	15.37637	63.00878	10.57482	.5388134
#1	42.14397	.0204869	51.95064	.0012475	-.014005	-.012216	32.29364
#2	41.83666	.0138732	51.67717	.0016473	-.013431	-.009902	32.60576
#3	41.85237	.0480458	51.81848	.0013084	-.037241	-.011505	32.58719

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.241797	-.006048	-.005146	-.005380	-.037341	-.005672	-.071482
Stddev	.028909	.001171	.000250	.000439	.000596	.003026	.002592
%RSD	11.95573	19.36351	4.859104	8.154083	1.594827	53.34174	3.625396
#1	-.209550	-.005904	-.005352	-.005837	-.036730	-.008834	-.069152
#2	-.265391	-.004956	-.004868	-.005342	-.037920	-.002805	-.074274
#3	-.250451	-.007285	-.005218	-.004962	-.037374	-.005377	-.071021

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: LR2 Acquired: 4/10/2025 18:10:01 Type: Unk
Method: NON EPA-6010-200.7(v2918) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.022473	-.003825	.0011278
Stddev	.001846	.000790	.0000113
%RSD	8.214558	20.66249	.9971551
#1	-.023495	-.003730	.0011149
#2	-.020342	-.003087	.0011355
#3	-.023582	-.004659	.0011330

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2993.094	79086.30	14878.32	2102.104	5130.747
Stddev	7.514	288.17	67.51	13.533	16.776
%RSD	.2510431	.3643725	.4537733	.6438071	.3269605
#1	2997.562	79210.26	14824.91	2115.475	5128.599
#2	2997.300	79291.75	14855.84	2102.423	5148.493
#3	2984.419	78756.90	14954.20	2088.414	5115.149

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCV09 Acquired: 4/10/2025 18:19:00 Type: Unk
Method: NON EPA-6010-200.7(v2919) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV09 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.852810	4.700917	4.715700	4.931389	5.050058	9.967390
Stddev	.023845	.095977	.018259	.042591	.023915	.047882
%RSD	.4913605	2.041671	.3871906	.8636672	.4735600	.4803842
#1	4.830127	4.598074	4.713702	4.889011	5.027358	10.01432
#2	4.850633	4.716575	4.698523	4.930966	5.047791	9.96924
#3	4.877668	4.788103	4.734876	4.974190	5.075026	9.91861

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.733897	.2470464	2.345795	23.85626	1.003182	2.464752
Stddev	.081614	.0009445	.007310	.14900	.002383	.007242
%RSD	.8384500	.3823269	.3116305	.6245611	.2375310	.2938133
#1	9.827290	.2476887	2.345429	24.00148	1.001065	2.462210
#2	9.676287	.2474886	2.338674	23.86353	1.005763	2.459125
#3	9.698114	.2459619	2.353281	23.70375	1.002717	2.472922

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.286464	5.132700	2.353130	23.92282	2.484635	1.241408
Stddev	.003199	.033228	.013395	.15017	.006953	.002440
%RSD	.2486439	.6473752	.5692408	.6277240	.2798209	.1965753
#1	1.283247	5.159972	2.364787	24.08297	2.483206	1.239258
#2	1.286502	5.142436	2.356105	23.90030	2.478508	1.244060
#3	1.289644	5.095691	2.338498	23.78518	2.492191	1.240907

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.40867	2.445768	2.500483	26.35471	F 4.447086	4.990387
Stddev	.07482	.016147	.006879	.08099	.015058	.026684
%RSD	.2729742	.6602059	.2751022	.3073254	.3385930	.5347124
#1	27.36539	2.460808	2.503633	26.37313	4.457238	4.966616
#2	27.49506	2.447789	2.505224	26.42490	4.454235	4.985296
#3	27.36556	2.428705	2.492594	26.26609	4.429786	5.019250

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCV09 Acquired: 4/10/2025 18:19:00 Type: Unk
Method: NON EPA-6010-200.7(v2919) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV09 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.766041	4.710004	F 6.239858	4.867978	4.666624	4.704433
Stddev	.023781	.030962	.037556	.019693	.038511	.028542
%RSD	.4989721	.6573638	.6018682	.4045487	.8252484	.6066959
#1	4.750730	4.730197	6.200124	4.848372	4.626178	4.716090
#2	4.753954	4.725459	6.274770	4.867806	4.670838	4.725301
#3	4.793438	4.674357	6.244680	4.887757	4.702854	4.671908

Elem	Sr4077
Units	ppm
Avg	4.804953
Stddev	.065501
%RSD	1.363195
#1	4.879244
#2	4.780098
#3	4.755518

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3113.540	77085.79	14911.04	2033.785	4862.730
Stddev	9.462	126.89	83.60	11.400	15.441
%RSD	.3039141	.1646081	.5606876	.5605092	.3175409
#1	3122.959	77077.62	14835.44	2021.487	4875.909
#2	3113.625	76963.18	14896.85	2035.871	4866.542
#3	3104.035	77216.57	15000.83	2043.997	4845.740

Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCB09 Acquired: 4/10/2025 18:23:11 Type: Unk
Method: NON EPA-6010-200.7(v2919) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB09 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001840	-.000900	-.000046	-.001406	.0008344	-.000491	-.011584
Stddev	.001190	.000498	.000410	.000646	.0009702	.001459	.000531
%RSD	64.66233	55.35064	888.2593	45.92328	116.2767	297.1636	4.582042
#1	-.001612	-.000449	-.000213	-.000869	.0019482	-.000227	-.012096
#2	-.000781	-.000818	.000421	-.001228	.0001723	.000818	-.011620
#3	-.003128	-.001435	-.000346	-.002122	.0003828	-.002064	-.011036

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000397	-.000022	-.020182	-.000341	-.000127	.0001567	-.006088
Stddev	.0000491	.000050	.003721	.000317	.000052	.0006657	.001501
%RSD	123.7731	223.3618	18.43609	92.99601	41.10895	424.9480	24.65613
#1	-.000016	-.000063	-.024474	-.000354	-.000068	-.000456	-.004363
#2	.000058	-.000036	-.018189	-.000652	-.000142	.000865	-.007096
#3	.000077	.000033	-.017882	-.000018	-.000169	.000061	-.006804

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005132	-.012159	-.000082	.0008040	-.128593	-.001859	-.001996
Stddev	.000107	.006301	.000196	.0002338	.011572	.001084	.000207
%RSD	2.093343	51.82428	239.2836	29.08726	8.999085	58.32046	10.37645
#1	-.005179	-.009008	-.000109	.0009881	-.141549	-.001869	-.002225
#2	-.005010	-.019415	.000126	.0008829	-.124949	-.002938	-.001941
#3	-.005208	-.008055	-.000263	.0005408	-.119282	-.000770	-.001822

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.205817	-.002281	-.000001	-.000083	.0018275	.0085177	-.001236
Stddev	.001123	.000448	.000250	.000255	.0002444	.0042490	.000598
%RSD	.5454588	19.66436	35032.77	304.9466	13.37562	49.88383	48.39921
#1	-.205833	-.001808	.000222	-.000345	.0018638	.0096392	-.000952
#2	-.206931	-.002700	.000048	.000164	.0015669	.0120936	-.001923
#3	-.204686	-.002334	-.000271	-.000070	.0020517	.0038205	-.000832

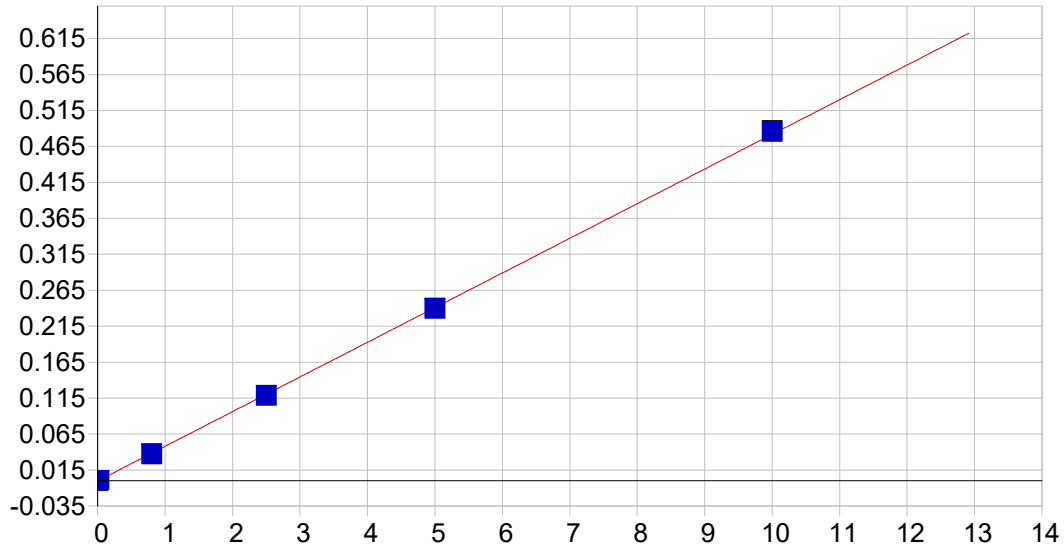
Reviewed By:kareem
On:4/11/2025 10:25:08 AM
Inst Id :P4
LB :LB135373

Sample Name: CCB09 Acquired: 4/10/2025 18:23:11 Type: Unk
Method: NON EPA-6010-200.7(v2919) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB09 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.003739	-.002793	-.000234
Stddev	.001409	.000656	.000051
%RSD	37.69283	23.47127	21.63749
#1	-.002416	-.002996	-.000291
#2	-.003579	-.002060	-.000193
#3	-.005221	-.003324	-.000218

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3238.599	79326.31	14670.15	2131.595	5423.931
Stddev	15.902	259.35	31.42	8.166	21.385
%RSD	.4910215	.3269385	.2141886	.3830789	.3942638
#1	3250.967	79106.94	14700.46	2124.377	5441.215
#2	3244.169	79612.54	14672.27	2140.458	5430.562
#3	3220.661	79259.44	14637.72	2129.950	5400.016

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



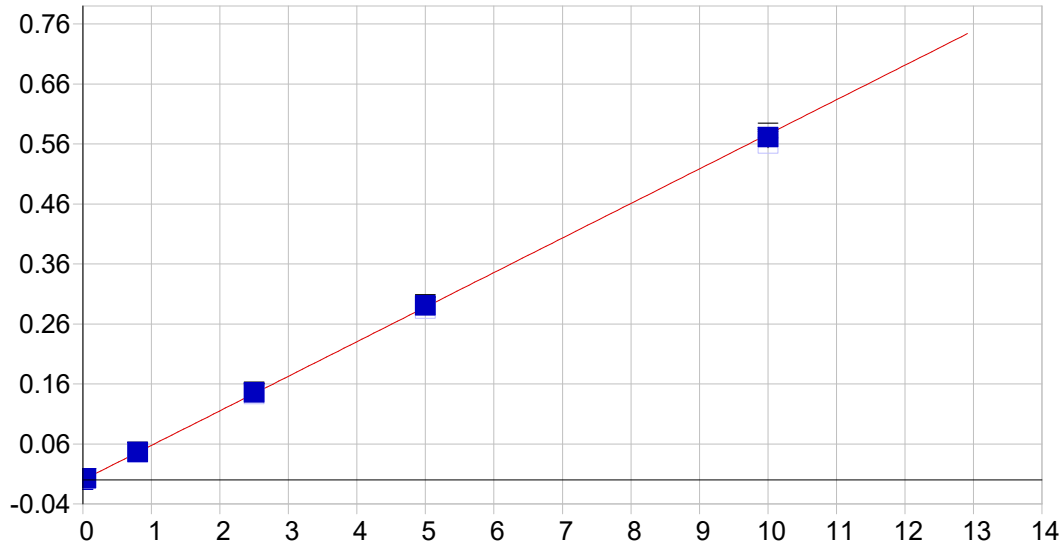
As 189.042 {479}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000202	Re-Slope:	1.000000
A1 (Gain):	0.048194	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999926	Status:	OK.
Std Error of Est:	0.000014		
Predicted MDL:	0.003056		
Predicted MQL:	0.010185		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00020	.000	1
S1	.02000	.02387	.004	19.4	.00094	.000	1
S3	2.5000	2.4638	-.036	-1.45	.11841	.000	1
S4	5.0000	4.9731	-.027	-.537	.23922	.001	1
S5	10.000	10.082	.082	.817	.48516	.001	1
S2	.80000	.77750	-.022	-2.81	.03723	.000	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



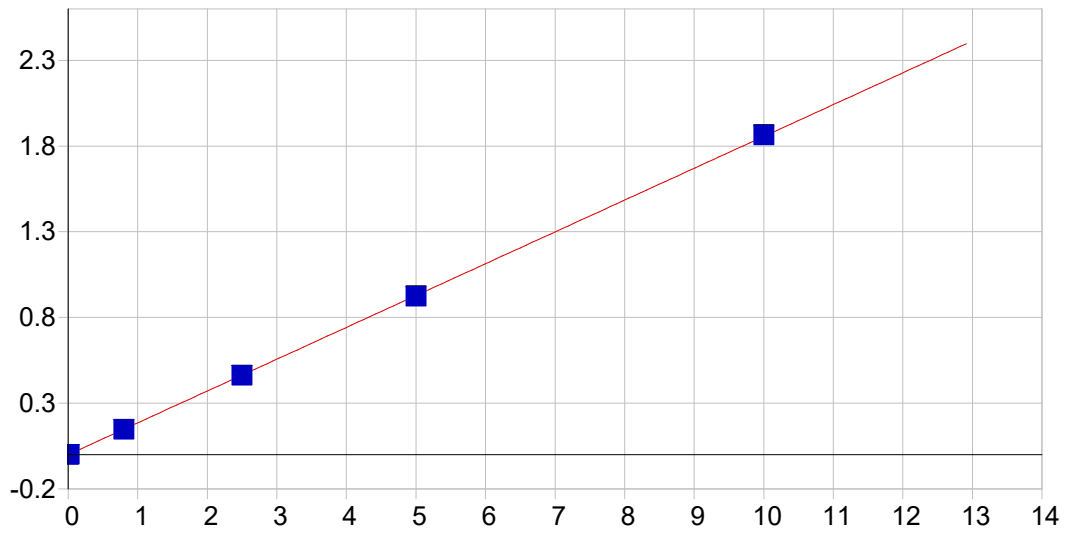
Tl 190.856 {477}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000072	Re-Slope:	1.000000
A1 (Gain):	0.057613	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999949	Status:	OK.
Std Error of Est:	0.000019		
Predicted MDL:	0.002115		
Predicted MQL:	0.007050		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00007	.000	1
S1	.04000	.04322	.003	8.06	.00227	.000	1
S3	2.5000	2.5326	.033	1.30	.14319	.001	1
S4	5.0000	5.0451	.045	.902	.28529	.002	1
S5	10.000	9.9156	-.084	-.844	.56059	.007	1
S2	.80000	.80359	.004	.448	.04538	.000	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



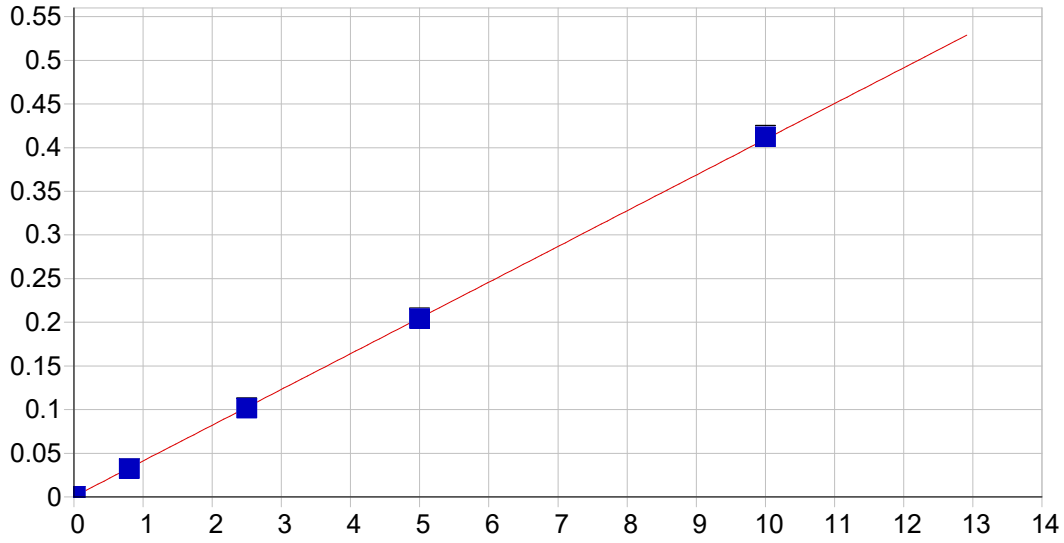
Pb 220.353 {453}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000280	Re-Slope:	1.000000
A1 (Gain):	0.185627	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999982	Status:	OK.
Std Error of Est:	0.000020		
Predicted MDL:	0.001586		
Predicted MQL:	0.005286		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00028	.000	1
S1	.01200	.01009	-.002	-15.9	.00155	.000	1
S3	2.5000	2.4891	-.011	-.434	.46126	.001	1
S4	5.0000	4.9775	-.023	-.451	.92265	.002	1
S5	10.000	10.041	.041	.411	1.8616	.002	1
S2	.80000	.79413	-.006	-.733	.14697	.000	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



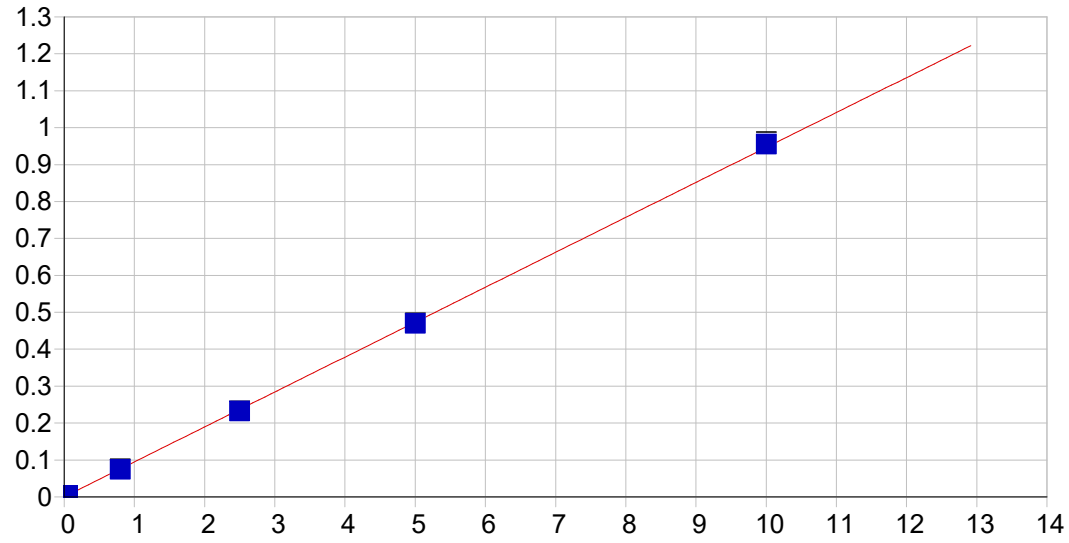
Se 196.090 {472}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000318	Re-Slope:	1.000000
A1 (Gain):	0.040927	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999953	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	0.003974		
Predicted MQL:	0.013246		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00032	.000	1
S1	.02000	.01786	-.002	-10.7	.00105	.000	1
S3	2.5000	2.4760	-.024	-.961	.10161	.000	1
S4	5.0000	4.9806	-.019	-.389	.20408	.001	1
S5	10.000	10.070	.070	.695	.41228	.002	1
S2	.80000	.77610	-.024	-2.99	.03207	.000	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



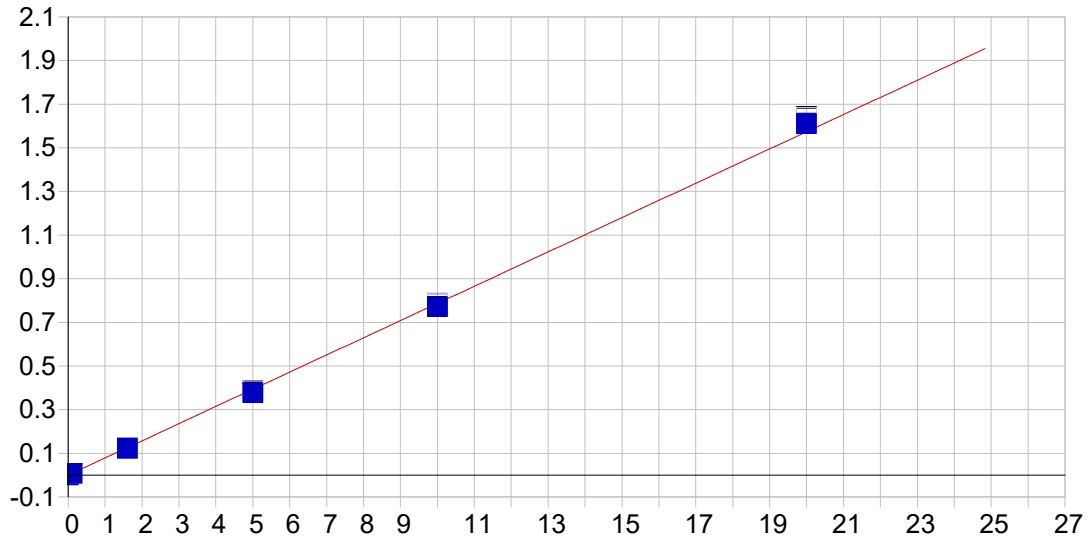
Sb 206.833 {463}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000236	Re-Slope:	1.000000
A1 (Gain):	0.094612	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999928	Status:	OK.
Std Error of Est:	0.000042		
Predicted MDL:	0.002572		
Predicted MQL:	0.008574		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00024	.000	1
S1	.05000	.05426	.004	8.52	.00538	.000	1
S3	2.5000	2.4523	-.048	-1.91	.23289	.001	1
S4	5.0000	4.9608	-.039	-.783	.47087	.000	1
S5	10.000	10.095	.095	.950	.95791	.004	1
S2	.80000	.78762	-.012	-1.55	.07496	.000	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



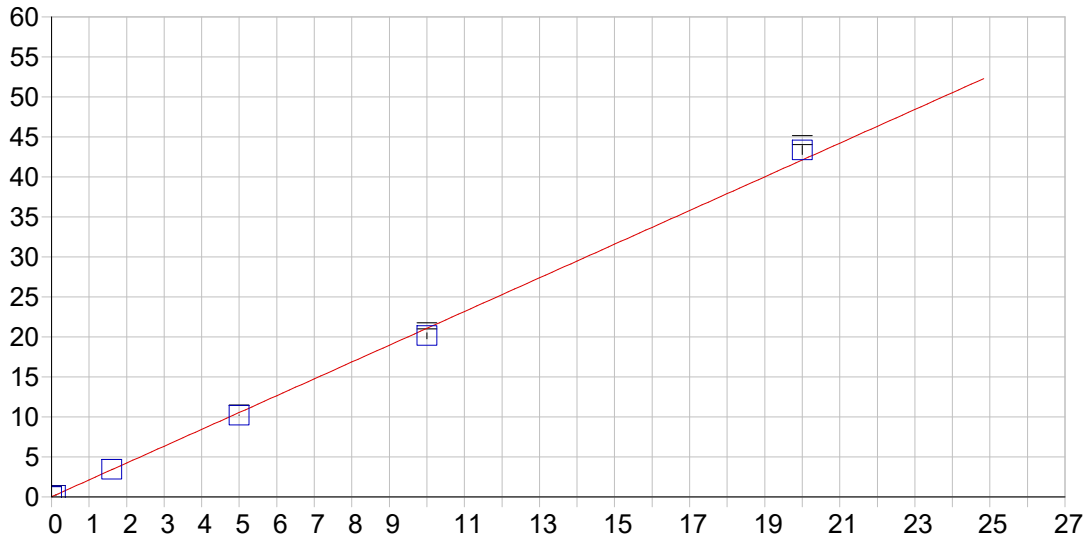
Al 396.152 { 85}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000143	Re-Slope:	1.000000
A1 (Gain):	0.078693	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999679	Status:	OK.
Std Error of Est:	0.000151		
Predicted MDL:	0.006320		
Predicted MQL:	0.021068		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	-.00014	.000	1
S1	.10000	.09667	-.003	-3.33	.00808	.000	1
S3	5.0000	4.7971	-.203	-4.06	.38499	.000	1
S4	10.000	9.8067	-.193	-1.93	.78685	.001	1
S5	20.000	20.456	.456	2.28	1.6402	.003	1
S2	1.6000	1.5435	-.056	-3.53	.12376	.000	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



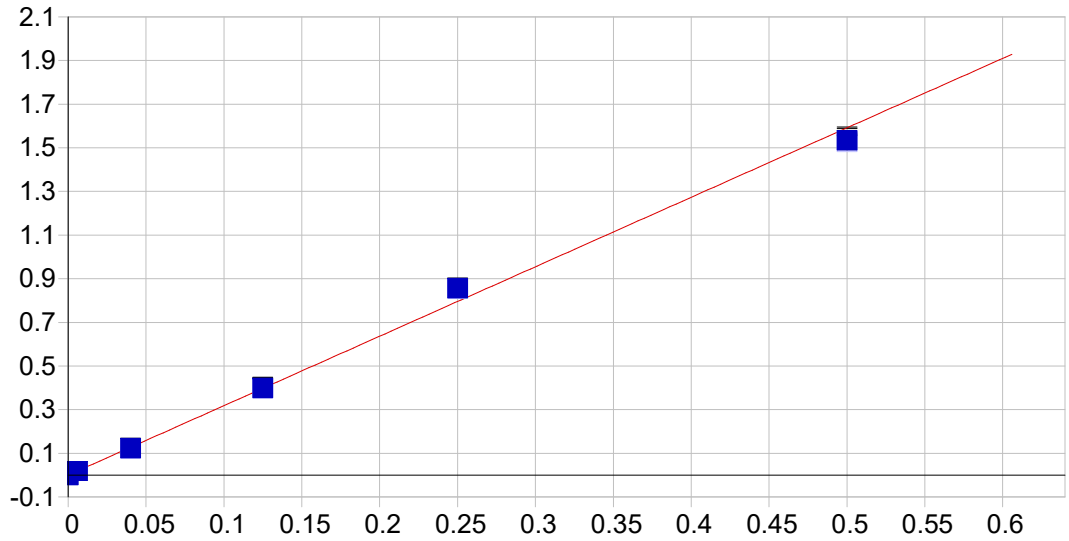
Ba 493.409 { 68}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.026285	Re-Slope:	1.000000
A1 (Gain):	2.104365	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999432	Status:	OK.
Std Error of Est:	0.005264		
Predicted MDL:	0.001018		
Predicted MQL:	0.003393		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.02630	.002	1
S1	.10000	.09732	-.003	-2.68	.23107	.002	1
S3	5.0000	4.8369	-.163	-3.26	10.205	.016	1
S4	10.000	9.5639	-.436	-4.36	20.152	.384	1
S5	20.000	20.586	.586	2.93	43.347	.555	1
S2	1.6000	1.6156	.016	.976	3.4261	.003	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



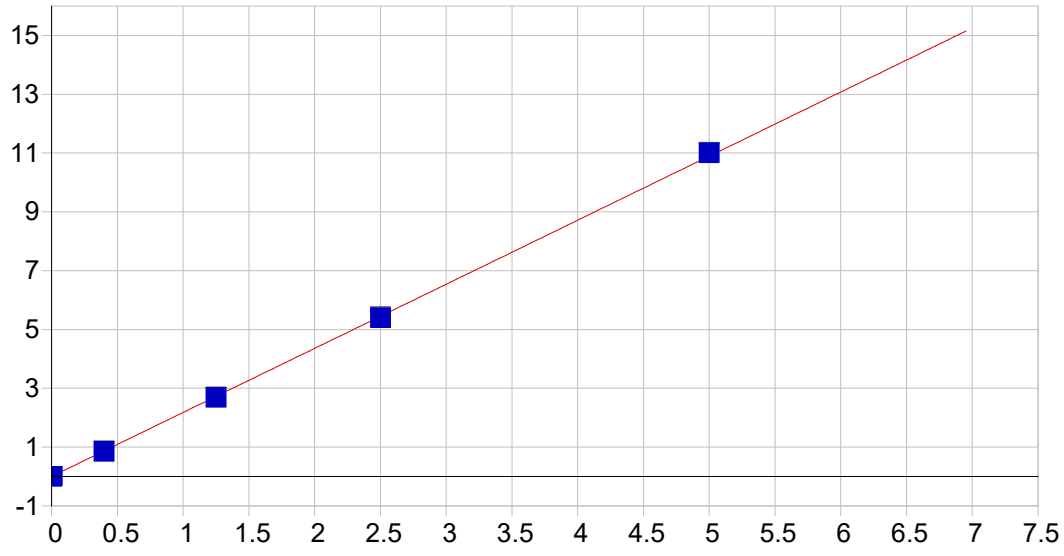
Be 234.861 {144}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000132	Re-Slope:	1.000000
A1 (Gain):	3.183422	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998813	Status:	OK.
Std Error of Est:	0.000445		
Predicted MDL:	0.000062		
Predicted MQL:	0.000208		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00013	.000	1
S1	.00600	.00604	.000	.685	.01896	.000	1
S3	.12500	.12548	.000	.383	.39754	.003	1
S4	.25000	.26908	.019	7.63	.85290	.002	1
S5	.50000	.48192	-.018	-3.62	1.5269	.016	1
S2	.04000	.03849	-.002	-3.79	.12181	.001	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



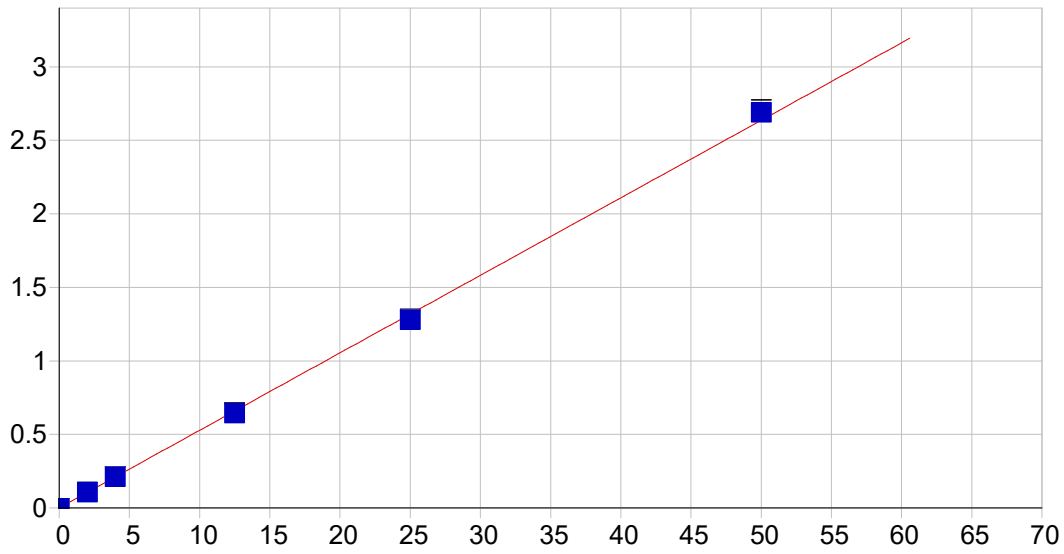
Cd 226.502 {449}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000053	Re-Slope:	1.000000
A1 (Gain):	2.179277	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999943	Status:	OK.
Std Error of Est:	0.000211		
Predicted MDL:	0.000092		
Predicted MQL:	0.000308		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00005	.000	1
S1	.00600	.00613	.000	2.10	.01347	.000	1
S3	1.2500	1.2334	-.017	-1.33	2.6904	.005	1
S4	2.5000	2.4773	-.023	-.910	5.4035	.019	1
S5	5.0000	5.0473	.047	.947	11.009	.016	1
S2	.40000	.39187	-.008	-2.03	.85481	.002	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



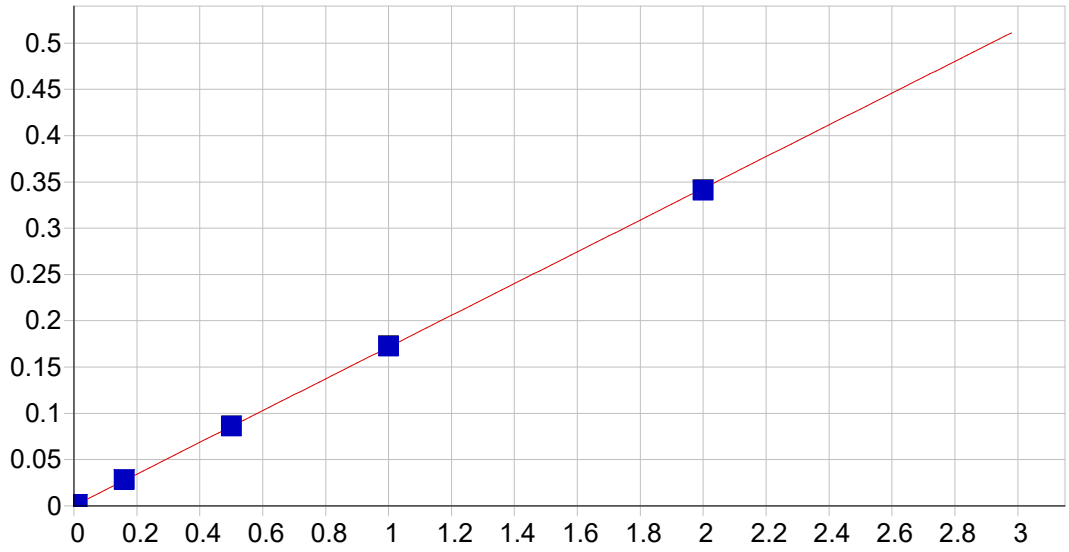
Ca 373.690 { 90}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000516	Re-Slope:	1.000000
A1 (Gain):	0.052718	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999739	Status:	OK.
Std Error of Est:	0.000637		
Predicted MDL:	0.008534		
Predicted MQL:	0.028447		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00006	.000	.000	.00052	.000	1
S2	4.0000	4.0120	.012	.300	.21202	.000	1
S3	12.500	12.229	-.271	-2.17	.64518	.002	1
S4	25.000	24.253	-.747	-2.99	1.2791	.004	1
S5	50.000	51.013	1.01	2.03	2.6898	.018	1
S1	2.0000	1.9931	-.007	-.343	.10559	.000	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



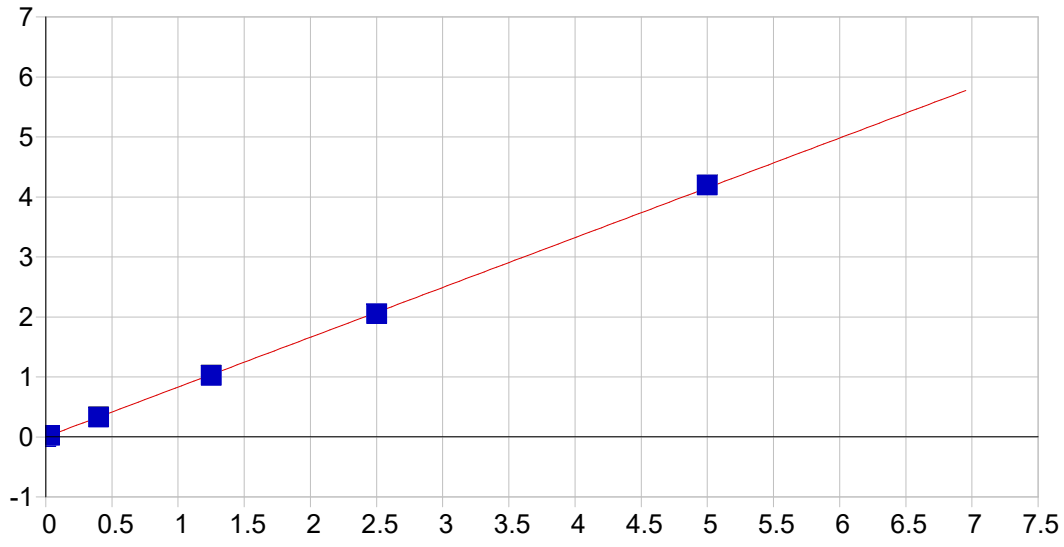
Cr 267.716 {126}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000100	Re-Slope:	1.000000
A1 (Gain):	0.171487	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999966	Status:	OK.
Std Error of Est:	0.000011		
Predicted MDL:	0.000393		
Predicted MQL:	0.001310		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00010	.000	1
S1	.01000	.00971	-.000	-2.90	.00177	.000	1
S3	.50000	.50229	.002	.458	.08626	.000	1
S4	1.0000	1.0058	.006	.576	.17263	.000	1
S5	2.0000	1.9878	-.012	-.611	.34108	.001	1
S2	.16000	.16447	.004	2.80	.02831	.000	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



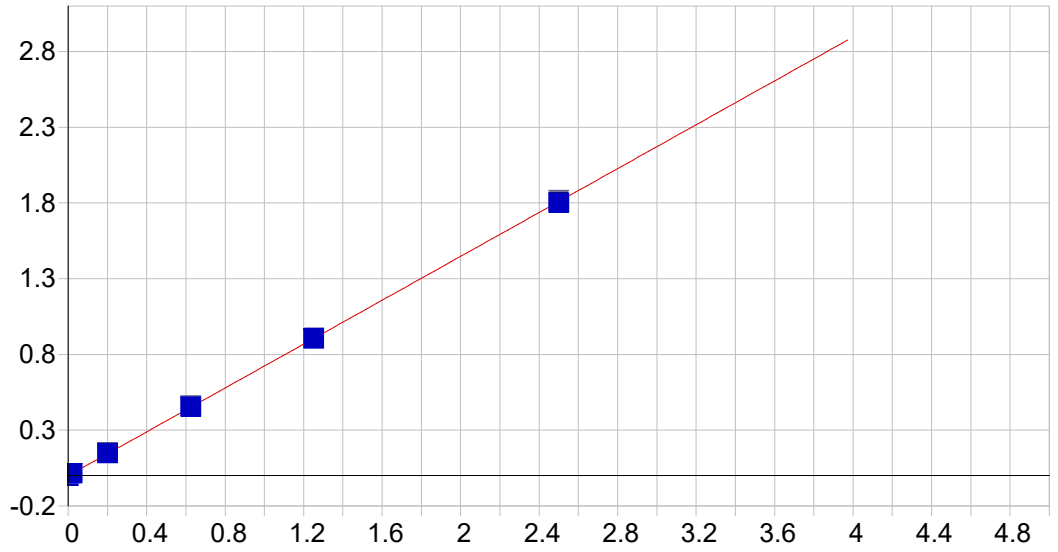
Co 228.616 {448}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000061	Re-Slope:	1.000000
A1 (Gain):	0.830255	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999931	Status:	OK.
Std Error of Est:	0.000199		
Predicted MDL:	0.000255		
Predicted MQL:	0.000850		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00006	.000	1
S1	.03000	.02949	-.001	-1.70	.02444	.000	1
S3	1.2500	1.2329	-.017	-1.37	1.0254	.001	1
S4	2.5000	2.4699	-.030	-1.21	2.0542	.004	1
S5	5.0000	5.0538	.054	1.08	4.2031	.005	1
S2	.40000	.39393	-.006	-1.52	.32769	.000	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



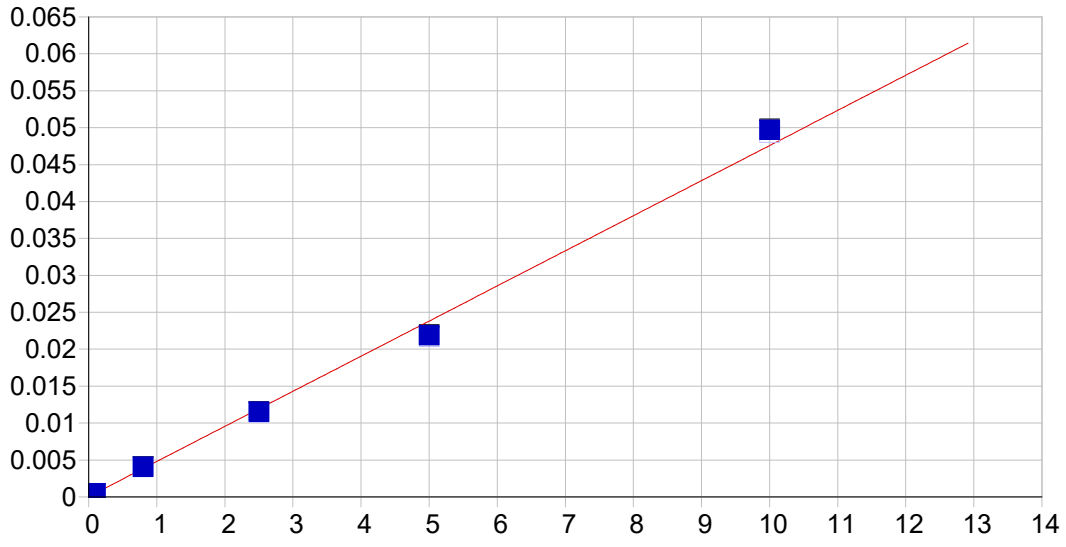
Cu 224.700 {450}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000707	Re-Slope:	1.000000
A1 (Gain):	0.724108	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999940	Status:	OK.
Std Error of Est:	0.000093		
Predicted MDL:	0.000424		
Predicted MQL:	0.001413		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00071	.000	1
S1	.02000	.02243	.002	12.2	.01568	.000	1
S3	.62500	.63045	.005	.872	.45902	.001	1
S4	1.2500	1.2498	-.000	-.019	.91067	.001	1
S5	2.5000	2.4870	-.013	-.520	1.8130	.004	1
S2	.20000	.20536	.005	2.68	.14902	.001	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



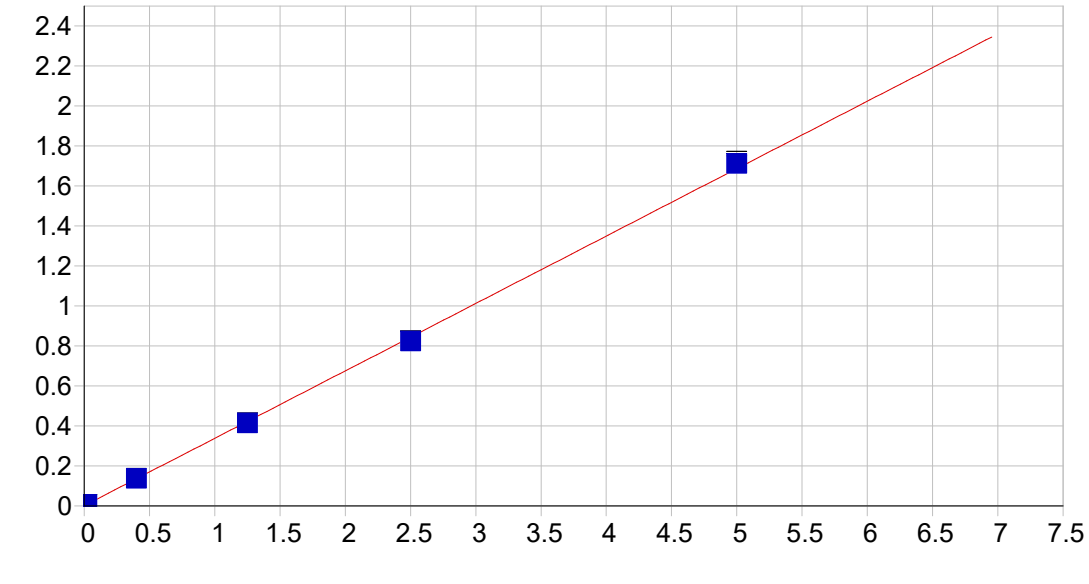
Fe 240.488 {140}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000041	Re-Slope:	1.000000
A1 (Gain):	0.004754	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998368	Status:	OK.
Std Error of Est:	0.000014		
Predicted MDL:	0.004779		
Predicted MQL:	0.015930		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00004	.000	1
S1	.10000	.09654	-.003	-3.46	.00049	.000	1
S3	2.5000	2.4123	-.088	-3.51	.01141	.000	1
S4	5.0000	4.5940	-.406	-8.12	.02168	.000	1
S5	10.000	10.450	.450	4.50	.04932	.000	1
S2	.80000	.84684	.047	5.86	.00403	.000	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



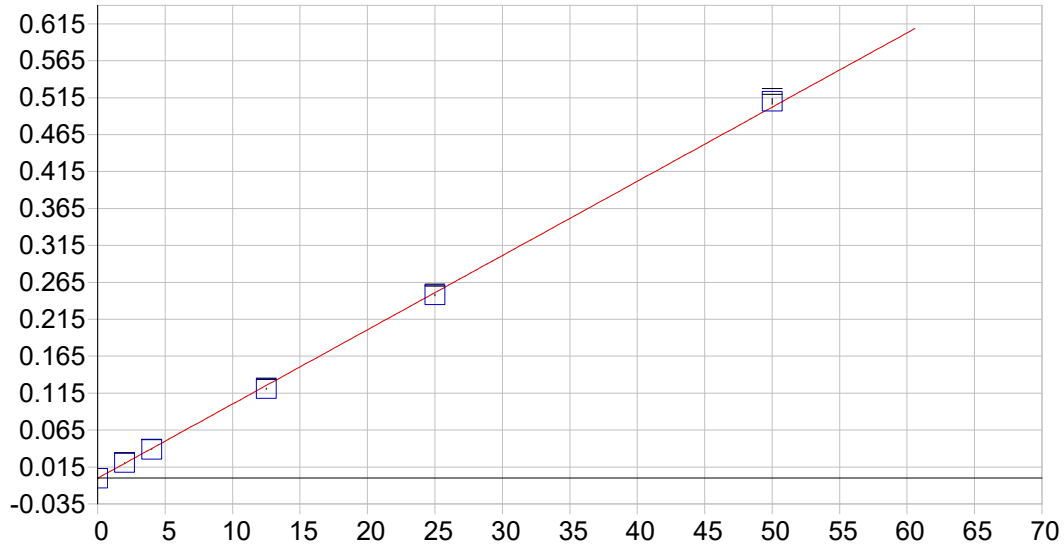
Mn 257.610 {131}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000884	Re-Slope:	1.000000
A1 (Gain):	0.337187	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999827	Status:	OK.
Std Error of Est:	0.000104		
Predicted MDL:	0.000471		
Predicted MQL:	0.001571		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00088	.000	1
S1	.02000	.02151	.002	7.54	.00814	.000	1
S3	1.2500	1.2257	-.024	-1.94	.41426	.002	1
S4	2.5000	2.4417	-.058	-2.33	.82435	.004	1
S5	5.0000	5.0768	.077	1.54	1.7130	.011	1
S2	.40000	.40433	.004	1.08	.13725	.000	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



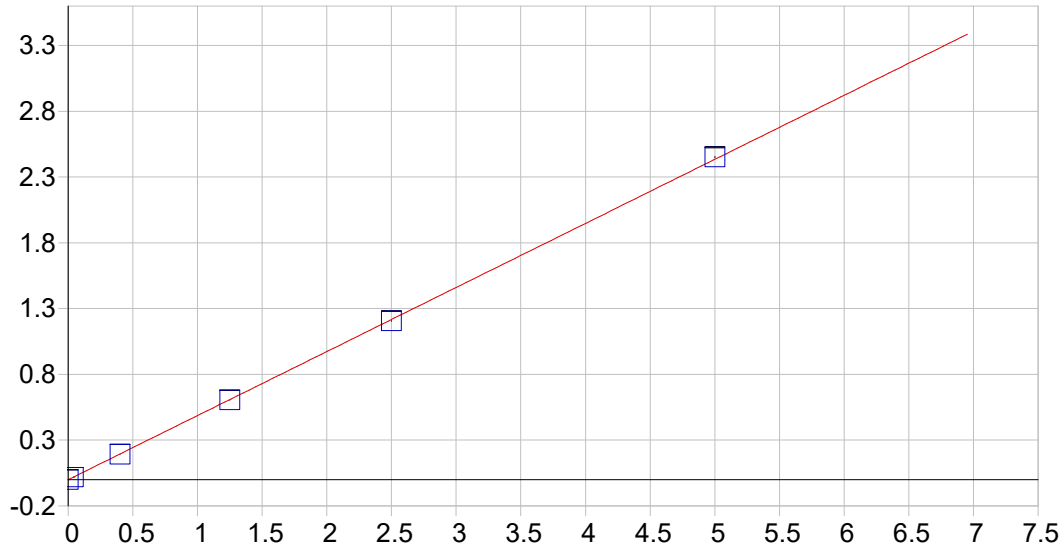
Mg 279.079 {121}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000275	Re-Slope:	1.000000
A1 (Gain):	0.010050	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999791	Status:	OK.
Std Error of Est:	0.000109		
Predicted MDL:	0.017684		
Predicted MQL:	0.058947		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00003	.000	.000	-.00027	.000	1
S2	4.0000	3.8932	-.107	-2.67	.03885	.000	1
S3	12.500	12.053	-.447	-3.57	.12086	.001	1
S4	25.000	24.686	-.314	-1.25	.24783	.001	1
S5	50.000	50.775	.775	1.55	.51002	.004	1
S1	2.0000	2.0926	.093	4.63	.02076	.000	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



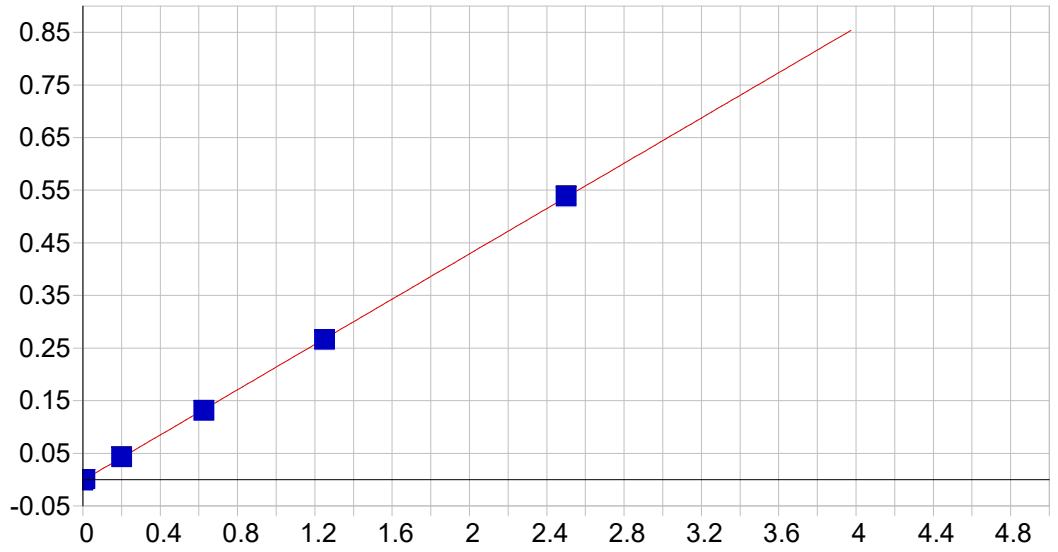
Ni 231.604 {446}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000303	Re-Slope:	1.000000
A1 (Gain):	0.486980	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999970	Status:	OK.
Std Error of Est:	0.000089		
Predicted MDL:	0.000376		
Predicted MQL:	0.001254		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00030	.000	1
S1	.04000	.03915	-.001	-2.11	.01876	.000	1
S3	1.2500	1.2424	-.008	-.610	.60471	.001	1
S4	2.5000	2.4771	-.023	-.916	1.2060	.003	1
S5	5.0000	5.0350	.035	.700	2.4516	.004	1
S2	.40000	.39638	-.004	-.905	.19273	.001	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



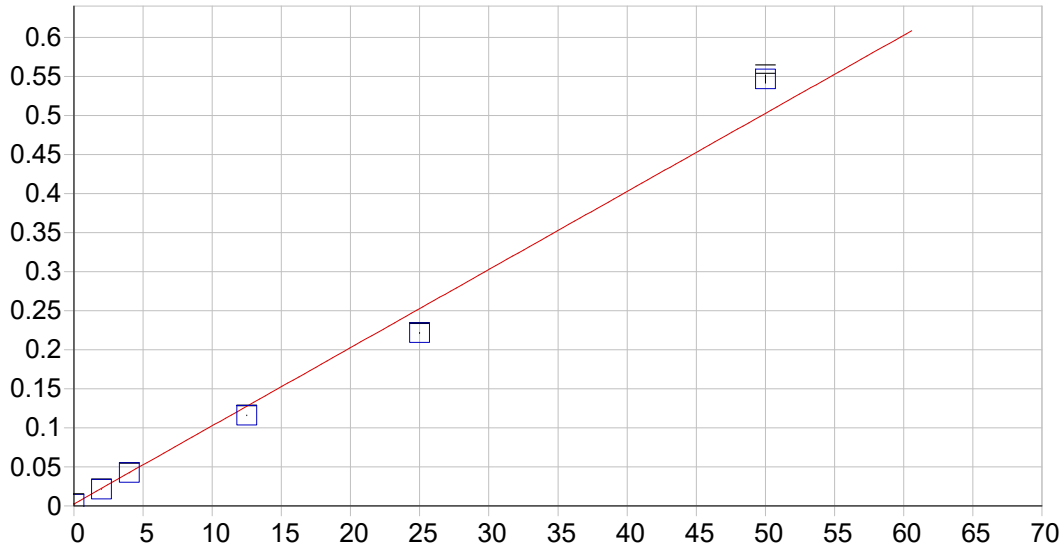
Ag 328.068 {103}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001342	Re-Slope:	1.000000
A1 (Gain):	0.215193	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999964	Status:	OK.
Std Error of Est:	0.000015		
Predicted MDL:	0.000408		
Predicted MQL:	0.001360		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00134	.000	1
S1	.01000	.01026	.000	2.63	.00085	.000	1
S3	.62500	.61670	-.008	-1.33	.13083	.000	1
S4	1.2500	1.2431	-.007	-.551	.26510	.000	1
S5	2.5000	2.5098	.010	.391	.53661	.001	1
S2	.20000	.20515	.005	2.58	.04263	.000	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



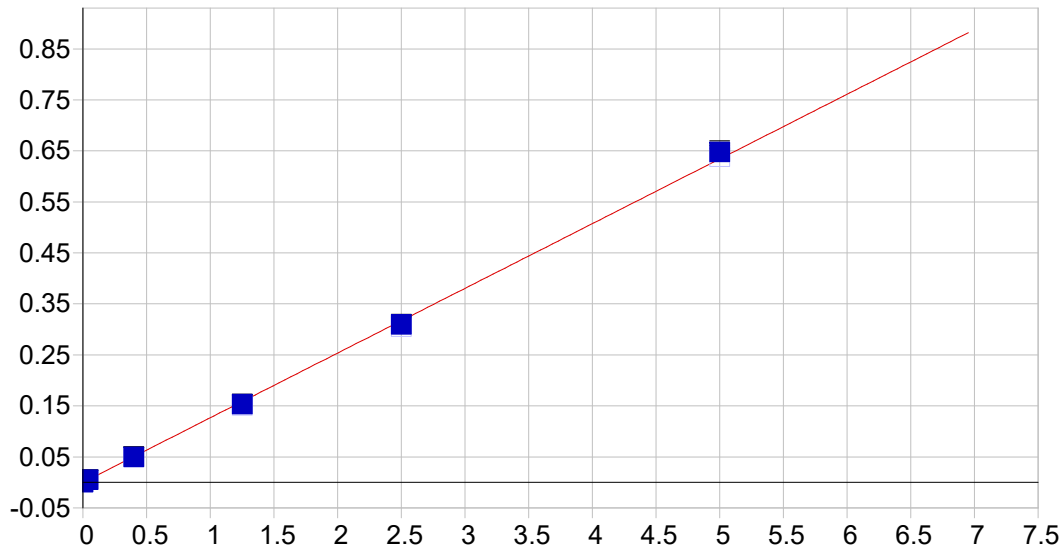
Na 589.592 { 57}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002642	Re-Slope:	1.000000
A1 (Gain):	0.009999	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.995280	Status:	OK.
Std Error of Est:	0.000516		
Predicted MDL:	0.018614		
Predicted MQL:	0.062045		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00039	.000	.000	.00265	.000	1
S2	4.0000	3.9779	-.022	-.552	.04242	.000	1
S3	12.500	11.339	-1.16	-9.29	.11603	.001	1
S4	25.000	21.895	-3.11	-12.4	.22157	.001	1
S5	50.000	54.405	4.40	8.81	.54664	.005	1
S1	2.0000	1.8833	-.117	-5.84	.02147	.000	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



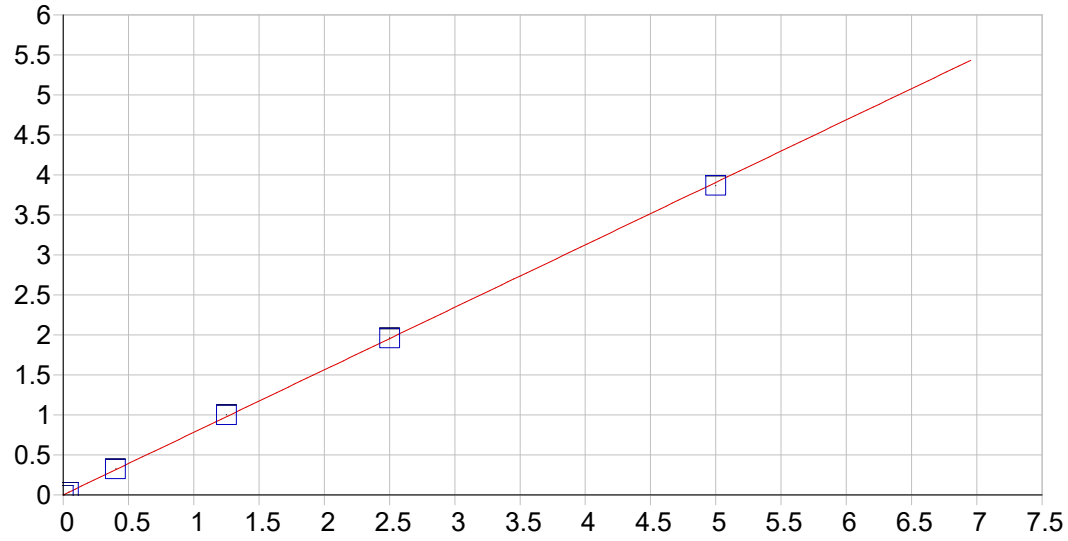
V 292.402 {115}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000109	Re-Slope:	1.000000
A1 (Gain):	0.126854	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999722	Status:	OK.
Std Error of Est:	0.000069		
Predicted MDL:	0.001647		
Predicted MQL:	0.005491		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00011	.000	1
S1	.04000	.03989	-.000	-.273	.00476	.000	1
S3	1.2500	1.2091	-.041	-3.27	.15096	.000	1
S4	2.5000	2.4420	-.058	-2.32	.30504	.001	1
S5	5.0000	5.1047	.105	2.09	.63819	.003	1
S2	.40000	.39431	-.006	-1.42	.04917	.000	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



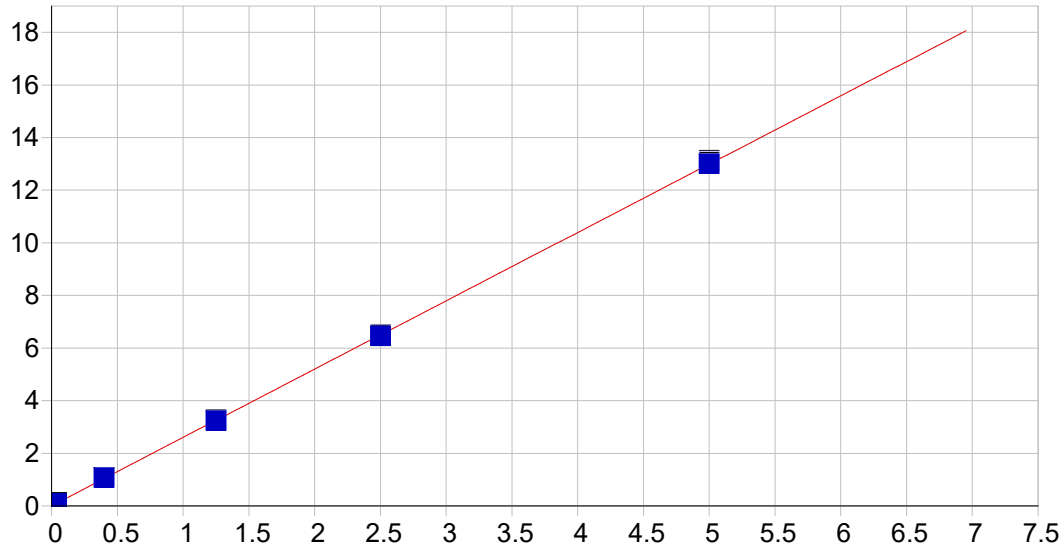
Zn 206.200 {464}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001068	Re-Slope:	1.000000
A1 (Gain):	0.781147	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999895	Status:	OK.
Std Error of Est:	0.000266		
Predicted MDL:	0.000240		
Predicted MQL:	0.000799		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00107	.000	1
S1	.04000	.04233	.002	5.83	.03414	.000	1
S3	1.2500	1.2799	.030	2.39	1.0009	.002	1
S4	2.5000	2.5053	.005	.213	1.9581	.008	1
S5	5.0000	4.9479	-.052	-1.04	3.8661	.003	1
S2	.40000	.41451	.015	3.63	.32486	.000	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



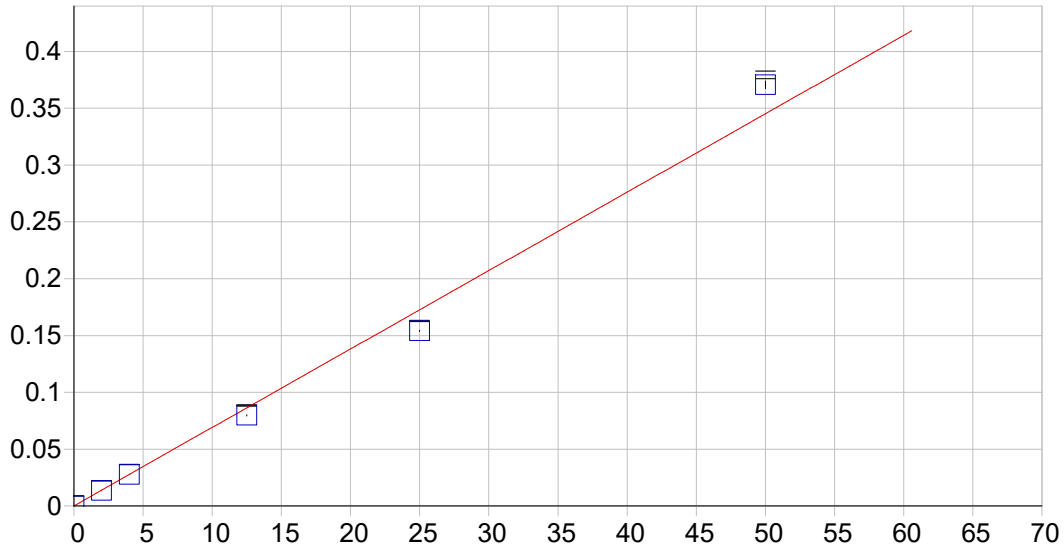
Zn 213.856 {158}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.005668	Re-Slope:	1.000000
A1 (Gain):	2.597141	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999973	Status:	OK.
Std Error of Est:	0.000453		
Predicted MDL:	0.000350		
Predicted MQL:	0.001165		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00566	.001	1
S1	.04000	.04188	.002	4.69	.11516	.002	1
S3	1.2500	1.2447	-.005	-.425	3.2609	.011	1
S4	2.5000	2.4868	-.013	-.528	6.5094	.015	1
S5	5.0000	5.0053	.005	.106	13.095	.046	1
S2	.40000	.41133	.011	2.83	1.0812	.005	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



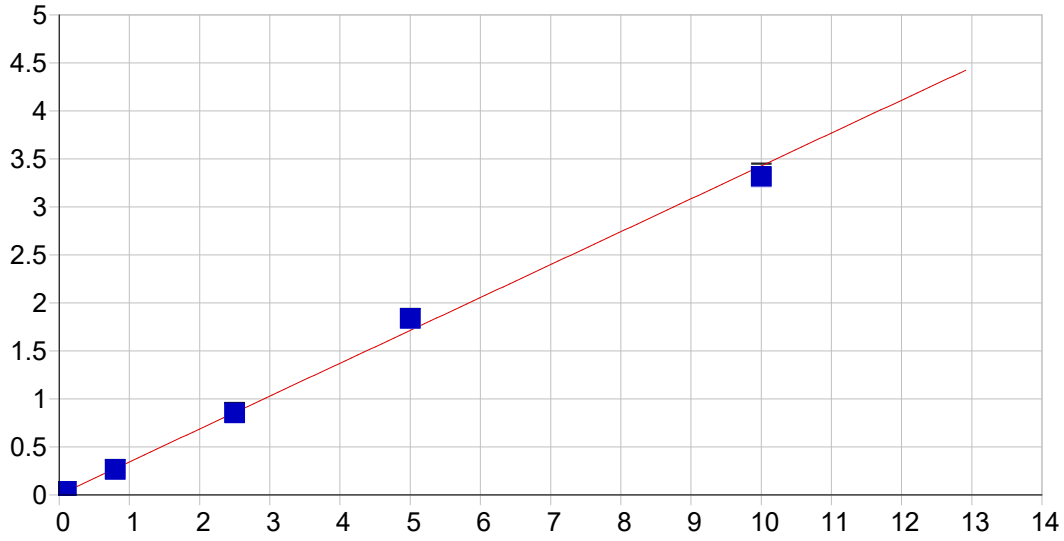
K 766.490 { 44}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000116	Re-Slope:	1.000000
A1 (Gain):	0.006901	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.996612	Status:	OK.
Std Error of Est:	0.000301		
Predicted MDL:	0.029480		
Predicted MQL:	0.098268		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00028	.000	.000	.00012	.000	1
S2	4.0000	4.0028	.003	.069	.02774	.000	1
S3	12.500	11.552	-.948	-7.58	.07983	.001	1
S4	25.000	22.312	-2.69	-10.8	.15409	.000	1
S5	50.000	53.698	3.70	7.40	.37068	.003	1
S1	2.0000	1.9350	-.065	-3.25	.01347	.000	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



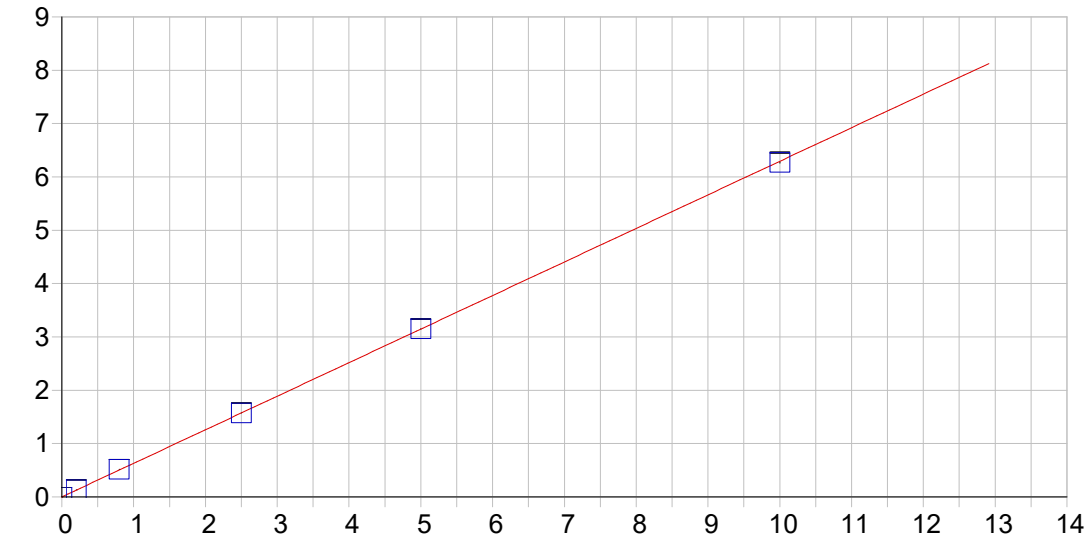
B 249.678 {135}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001520	Re-Slope:	1.000000
A1 (Gain):	0.342479	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998957	Status:	OK.
Std Error of Est:	0.000819		
Predicted MDL:	0.000724		
Predicted MQL:	0.002413		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00152	.000	1
S1	.10000	.10429	.004	4.29	.03706	.000	1
S3	2.5000	2.4885	-.012	-.462	.85123	.007	1
S4	5.0000	5.3617	.362	7.23	1.8327	.001	1
S5	10.000	9.6825	-.318	-3.18	3.3074	.037	1
S2	.80000	.76305	-.037	-4.62	.26204	.003	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



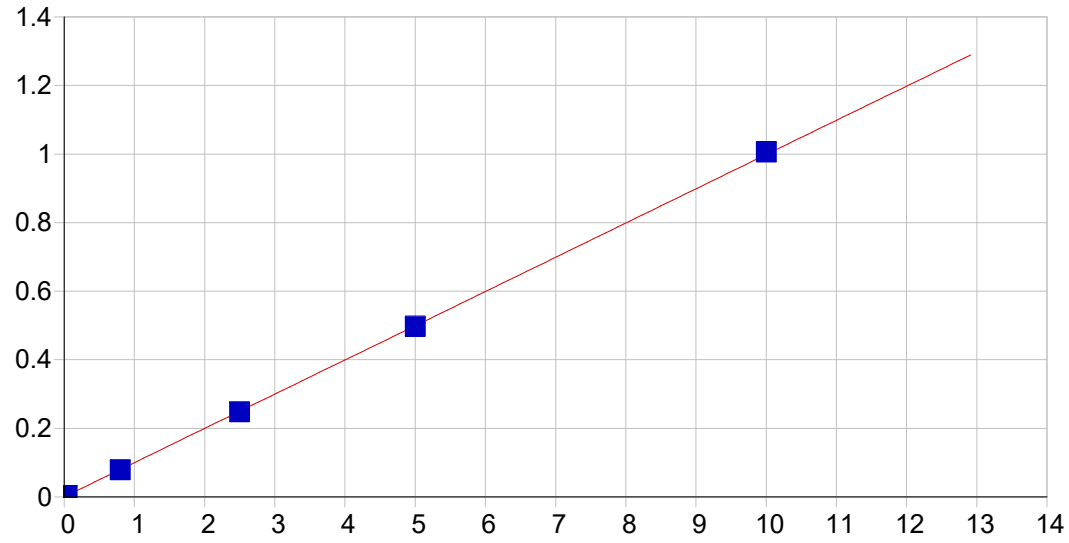
Mo 202.030 {467}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000321	Re-Slope:	1.000000
A1 (Gain):	0.629285	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999970	Status:	OK.
Std Error of Est:	0.000363		
Predicted MDL:	0.000311		
Predicted MQL:	0.001038		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00002	-.000	.000	.00031	.000	1
S1	.20000	.21162	.012	5.81	.13349	.001	1
S3	2.5000	2.4999	-.000	-.005	1.5735	.003	1
S4	5.0000	5.0077	.008	.154	3.1516	.006	1
S5	10.000	9.9653	-.035	-.347	6.2713	.013	1
S2	.80000	.81549	.015	1.94	.51350	.000	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



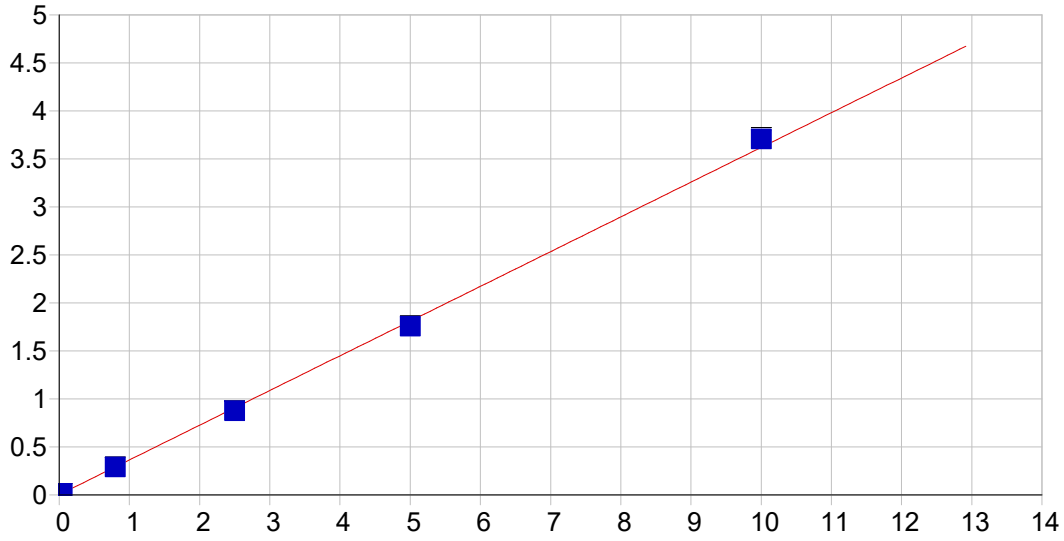
Sn 189.989 {478}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000173	Re-Slope:	1.000000
A1 (Gain):	0.099825	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999964	Status:	OK.
Std Error of Est:	0.000028		
Predicted MDL:	0.000940		
Predicted MQL:	0.003134		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00017	.000	1
S1	.04000	.04080	.001	2.00	.00424	.000	1
S3	2.5000	2.4780	-.022	-.881	.24728	.000	1
S4	5.0000	4.9738	-.026	-.525	.49617	.002	1
S5	10.000	10.068	.068	.677	1.0042	.002	1
S2	.80000	.77972	-.020	-2.54	.07793	.000	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



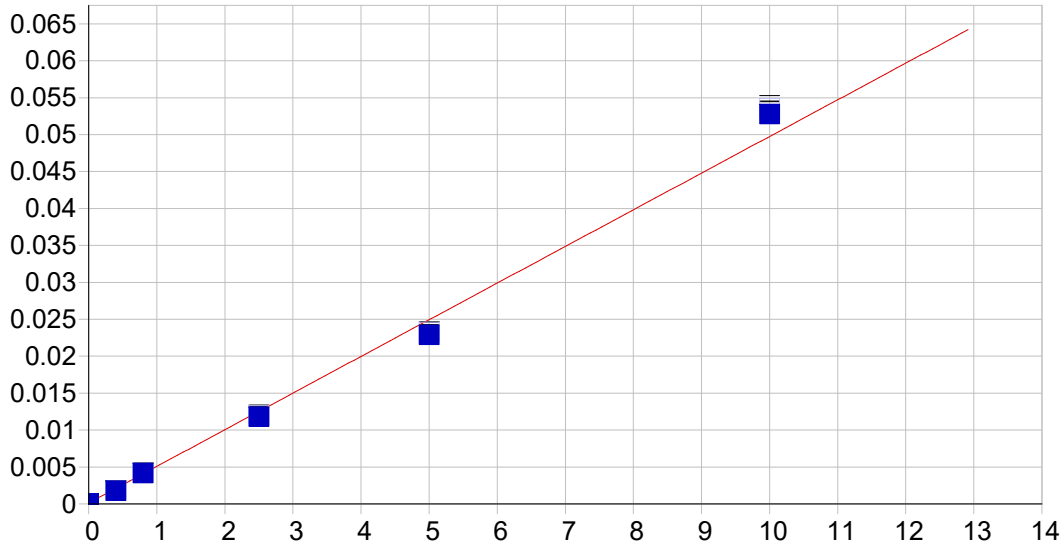
Ti 336.121 {100}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002450	Re-Slope:	1.000000
A1 (Gain):	0.361690	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999632	Status:	OK.
Std Error of Est:	0.000325		
Predicted MDL:	0.000774		
Predicted MQL:	0.002582		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00245	.000	1
S1	.04000	.03993	-.000	-.172	.01688	.000	1
S3	2.5000	2.4131	-.087	-3.48	.87492	.001	1
S4	5.0000	4.8503	-.150	-2.99	1.7561	.005	1
S5	10.000	10.243	.243	2.43	3.7061	.016	1
S2	.80000	.79331	-.007	-.836	.28928	.000	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



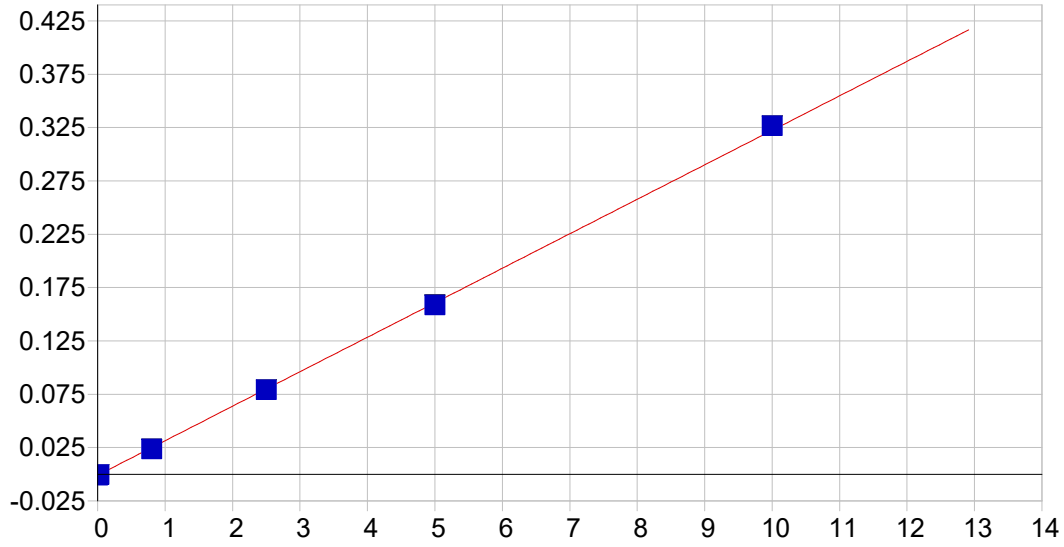
Si 288.158 {117}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000116	Re-Slope:	1.000000
A1 (Gain):	0.004963	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.997636	Status:	OK.
Std Error of Est:	0.000037		
Predicted MDL:	0.007692		
Predicted MQL:	0.025639		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00009	.000	.000	.00012	.000	1
S1	.40000	.33267	-.067	-16.8	.00177	.000	1
S3	2.5000	2.3524	-.148	-5.90	.01198	.000	1
S4	5.0000	4.5899	-.410	-8.20	.02327	.000	1
S5	10.000	10.612	.612	6.12	.05353	.000	1
S2	.80000	.81212	.012	1.51	.00421	.000	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



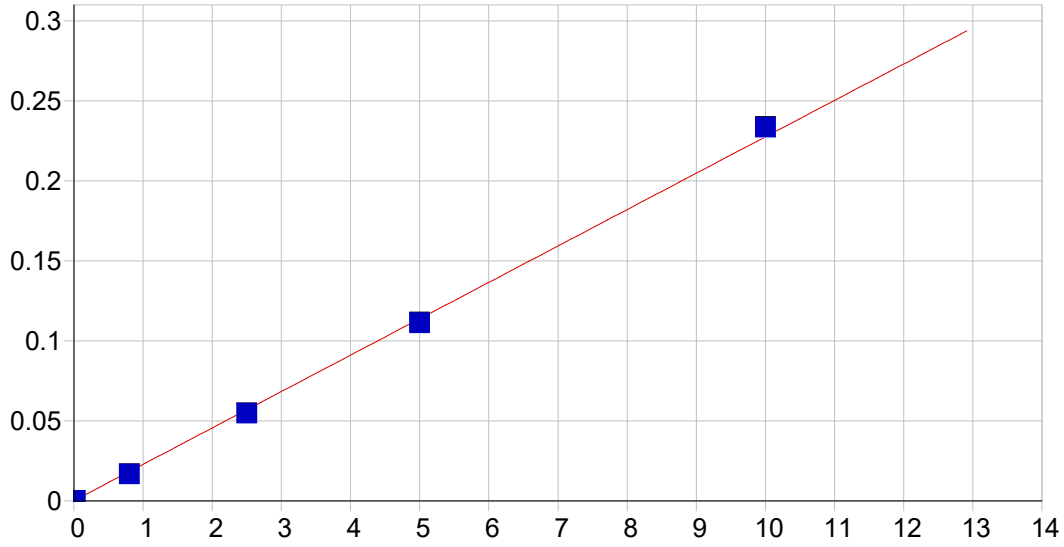
P 177.495 {490}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000890	Re-Slope:	1.000000
A1 (Gain):	0.032330	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999858	Status:	OK.
Std Error of Est:	0.000013		
Predicted MDL:	0.003105		
Predicted MQL:	0.010350		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00089	.000	1
S1	.02000	.01926	-.001	-3.70	-.00027	.000	1
S3	2.5000	2.4776	-.022	-.894	.07920	.000	1
S4	5.0000	4.9373	-.063	-1.25	.15871	.000	1
S5	10.000	10.130	.130	1.30	.32658	.000	1
S2	.80000	.75546	-.045	-5.57	.02353	.000	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



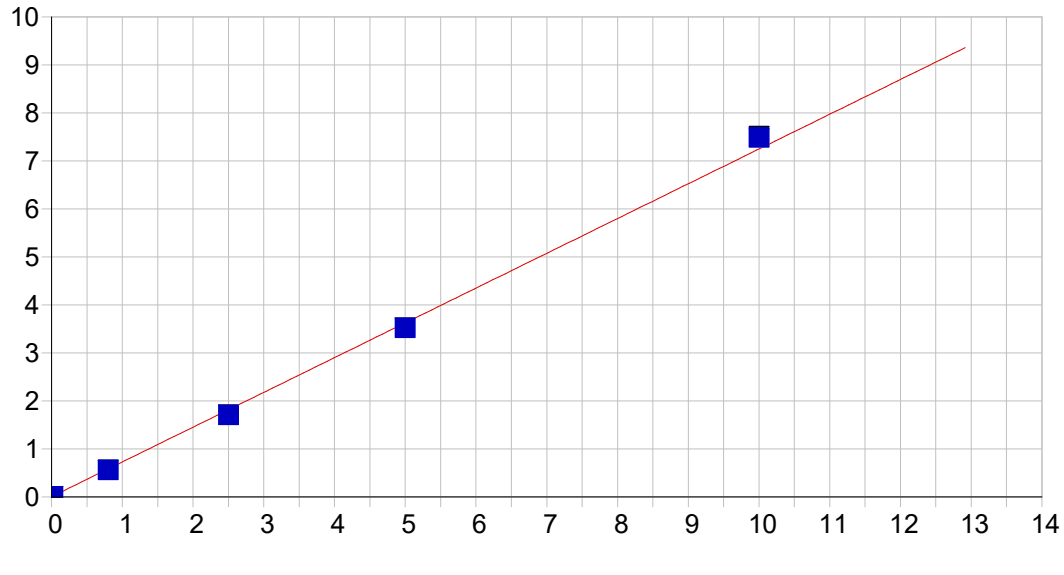
S 182.034 {485}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000123	Re-Slope:	1.000000
A1 (Gain):	0.022743	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999490	Status:	OK.
Std Error of Est:	0.000017		
Predicted MDL:	0.003911		
Predicted MQL:	0.013038		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00012	.000	1
S1	.02000	.02251	.003	12.6	.00062	.000	1
S3	2.5000	2.4076	-.092	-3.70	.05473	.000	1
S4	5.0000	4.8905	-.110	-2.19	.11105	.000	1
S5	10.000	10.265	.265	2.65	.23299	.000	1
S2	.80000	.73419	-.066	-8.23	.01677	.000	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



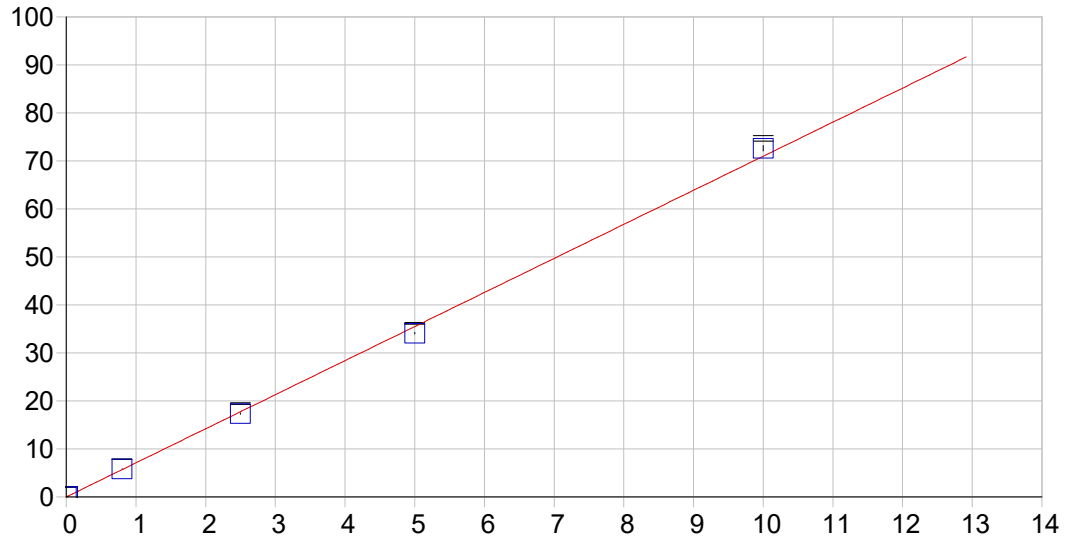
Li 670.784 { 50}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.004215	Re-Slope:	1.000000
A1 (Gain):	0.724353	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999307	Status:	OK.
Std Error of Est:	0.000632		
Predicted MDL:	0.001204		
Predicted MQL:	0.004015		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00422	.001	1
S5	10.000	10.329	.329	3.29	7.4900	.026	1
S4	5.0000	4.8547	-.145	-2.91	3.5225	.007	1
S3	2.5000	2.3520	-.148	-5.92	1.7088	.006	1
S1	.02000	.01937	-.001	-3.16	.01848	.001	1
S2	.80000	.76452	-.035	-4.44	.55828	.002	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



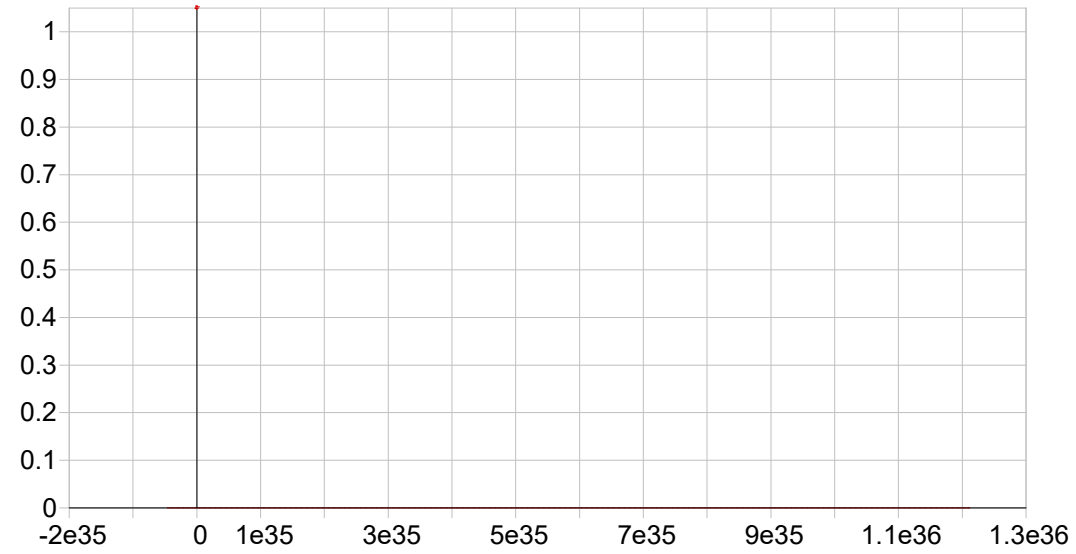
Sr 407.771 { 83}

Date of Fit:	4/14/2025 13:39:04	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000910	Re-Slope:	1.000000
A1 (Gain):	7.097195	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999594	Status:	OK.
Std Error of Est:	0.004739		
Predicted MDL:	0.000077		
Predicted MQL:	0.000258		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00091	.000	1
S1	.02000	.02023	.000	1.13	.14446	.001	1
S3	2.5000	2.4451	-.055	-2.20	17.354	.156	1
S4	5.0000	4.8027	-.197	-3.95	34.086	.175	1
S5	10.000	10.234	.234	2.34	72.630	.596	1
S2	.80000	.81848	.018	2.31	5.8098	.009	1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

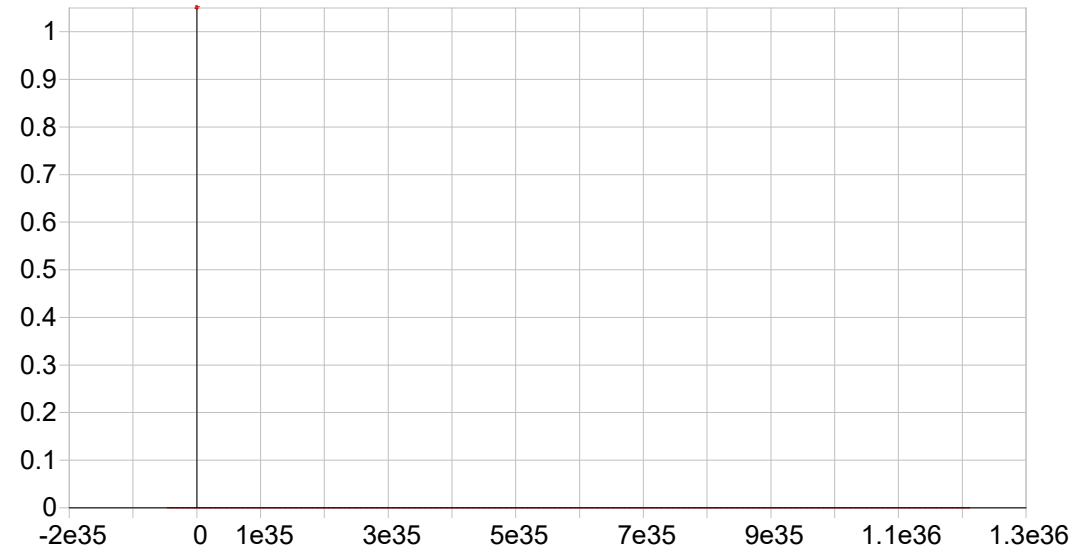


Y 224.306 {450}*

Date of Fit:	4/14/2025 11:19:38	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}*

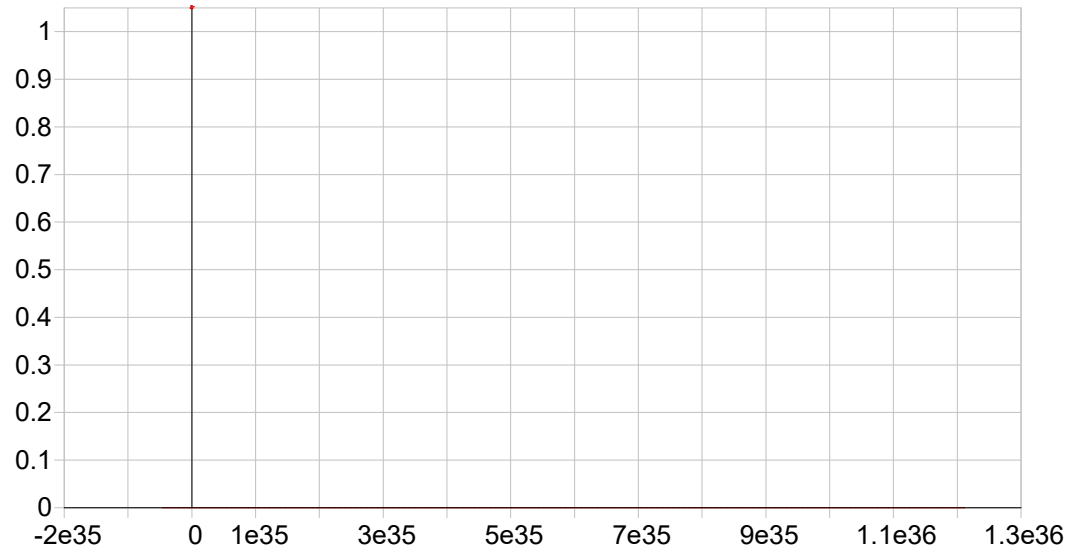
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

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

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

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

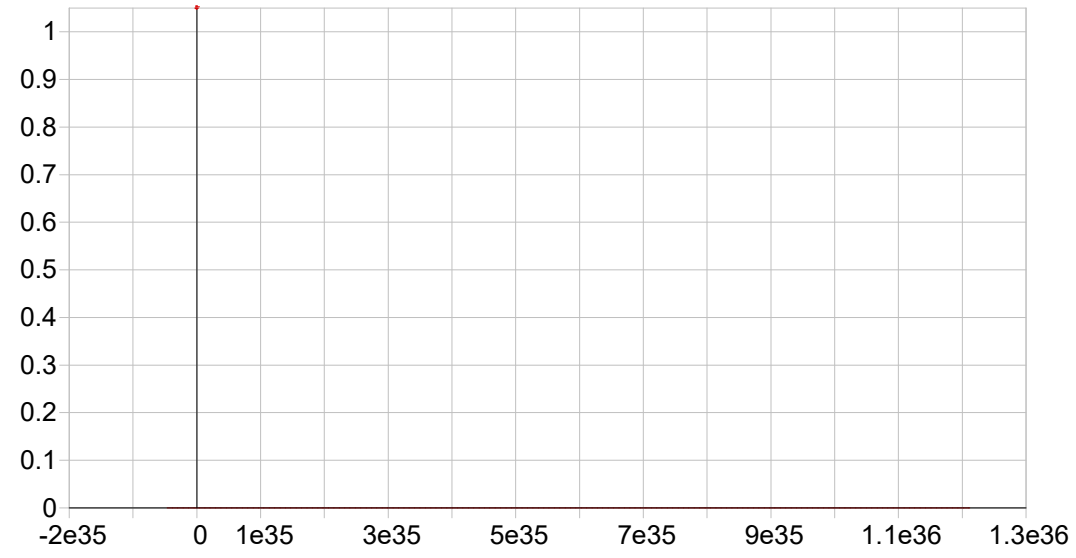


Y 371.030 { 91}*

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

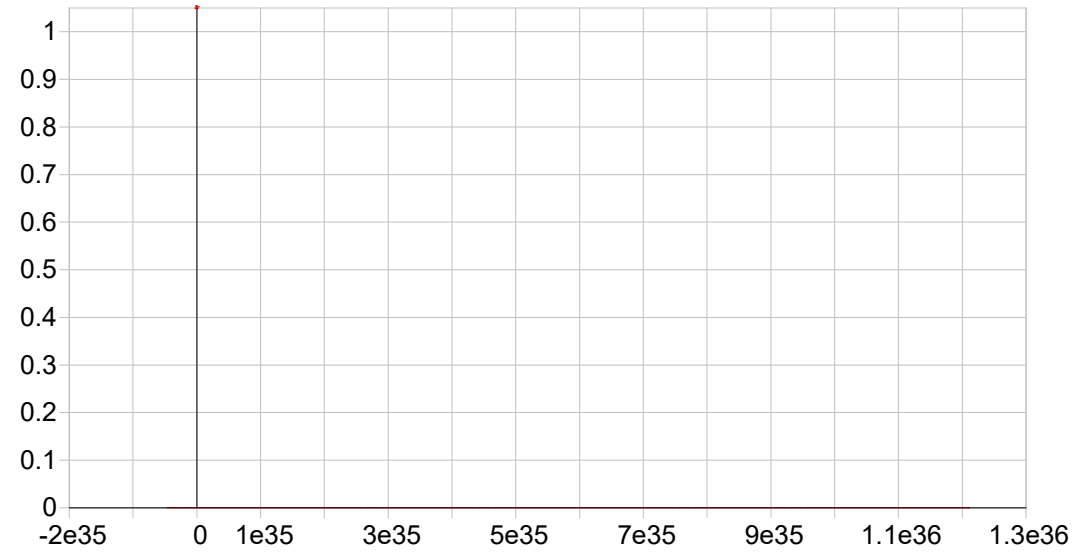
Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424



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:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

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:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: S0 Acquired: 4/14/2025 13:13:33 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00020	-.00007	-.00028	.00032	.00024	-.00014	.02630	-.00013
Stddev	.00012	.00013	.00018	.00014	.00006	.00027	.00250	.00007
%RSD	60.262	173.97	64.521	45.435	24.298	193.00	9.5024	49.889
#1	-.00029	-.00015	-.00046	.00027	.00030	.00008	.02535	-.00006
#2	-.00025	.00007	-.00028	.00048	.00020	-.00006	.02913	-.00020
#3	-.00006	-.00014	-.00010	.00021	.00021	-.00045	.02441	-.00014

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	.00005	.00052	.00010	.00006	-.00071	.00004	.00088	-.00027
Stddev	.00016	.00014	.00002	.00007	.00019	.00001	.00006	.00012
%RSD	301.11	26.091	21.614	119.68	26.320	19.547	7.0244	45.481
#1	.00023	.00066	.00008	.00014	-.00052	.00004	.00093	-.00032
#2	-.00009	.00051	.00010	.00005	-.00089	.00004	.00091	-.00037
#3	.00002	.00039	.00012	-.00000	-.00072	.00005	.00081	-.00013

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	-.00030	-.00134	.00265	-.00011	.00566	.00012	.00152	.00031
Stddev	.00006	.00004	.00008	.00017	.00062	.00007	.00005	.00016
%RSD	19.864	3.2870	3.1609	156.23	11.038	59.998	3.5055	50.922
#1	-.00023	-.00137	.00255	-.00030	.00533	.00020	.00146	.00013
#2	-.00034	-.00129	.00270	.00003	.00638	.00010	.00153	.00040
#3	-.00033	-.00137	.00269	-.00006	.00527	.00006	.00157	.00040

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	.00017	.00245	.00012	-.00089	.00012	.00422	.00091
Stddev	.00004	.00015	.00002	.00007	.00004	.00052	.00050
%RSD	22.352	6.1684	16.173	7.6124	30.231	12.289	54.521
#1	.00017	.00235	.00014	-.00081	.00012	.00422	.00061
#2	.00013	.00238	.00010	-.00094	.00009	.00370	.00064
#3	.00021	.00263	.00011	-.00092	.00016	.00473	.00148

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: S0 Acquired: 4/14/2025 13:13:33 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2738.5	66672.	12366.	1781.5	4398.4
Stddev	12.3	193.	54.	11.8	17.7
%RSD	.44870	.29019	.43359	.66085	.40196
#1	2724.4	66884.	12398.	1771.7	4378.1
#2	2743.8	66504.	12304.	1778.3	4406.1
#3	2747.2	66628.	12396.	1794.6	4410.9

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: S1 Acquired: 4/14/2025 13:17:56 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00094	.00227	.00155	.00105	.00538	.00808	.23107	.01896
Stddev	.00017	.00012	.00028	.00011	.00010	.00029	.00162	.00022
%RSD	18.364	5.1968	18.078	10.523	1.8488	3.5414	.70104	1.1386
#1	.00114	.00240	.00146	.00114	.00527	.00791	.23292	.01871
#2	.00083	.00225	.00186	.00093	.00546	.00791	.23037	.01907
#3	.00086	.00217	.00132	.00108	.00541	.00841	.22992	.01909

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	.01347	.10559	.00177	.02444	.01568	.00049	.00814	.02076
Stddev	.00026	.00009	.00007	.00010	.00009	.00001	.00003	.00019
%RSD	1.9527	.08173	3.9123	.39726	.58344	2.5606	.34854	.91200
#1	.01358	.10568	.00182	.02433	.01574	.00051	.00816	.02063
#2	.01317	.10551	.00178	.02447	.01557	.00049	.00811	.02097
#3	.01366	.10558	.00169	.02452	.01572	.00048	.00815	.02066

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	.01876	.00085	.02147	.00476	.11516	.01347	.03706	.13349
Stddev	.00002	.00007	.00034	.00009	.00155	.00014	.00040	.00051
%RSD	.08381	8.0474	1.5947	1.8218	1.3496	1.0128	1.0756	.38202
#1	.01878	.00078	.02186	.00471	.11469	.01362	.03726	.13401
#2	.01876	.00091	.02122	.00471	.11689	.01336	.03660	.13299
#3	.01875	.00087	.02134	.00486	.11389	.01343	.03732	.13348

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	.00424	.01688	.00177	-.00027	.00062	.01848	.14446
Stddev	.00006	.00005	.00001	.00005	.00001	.00056	.00068
%RSD	1.3453	.29305	.66054	19.575	1.1077	3.0450	.46874
#1	.00422	.01683	.00178	-.00033	.00061	.01797	.14472
#2	.00420	.01690	.00176	-.00024	.00062	.01908	.14369
#3	.00431	.01692	.00178	-.00023	.00062	.01837	.14496

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: S1 Acquired: 4/14/2025 13:17:56 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2787.1	66644.	13141.	1840.1	4420.1
Stddev	8.9	242.	16.	6.2	6.4
%RSD	.31760	.36246	.12084	.33440	.14426
#1	2777.4	66544.	13148.	1836.1	4412.7
#2	2794.7	66467.	13122.	1836.9	4424.0
#3	2789.2	66919.	13151.	1847.2	4423.5

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: S2 Acquired: 4/14/2025 13:22:20 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.03723	.04538	.14697	.03207	.07496	.12376	3.4261	.12181
Stddev	.00017	.00017	.00049	.00027	.00034	.00014	.0032	.00053
%RSD	.45372	.38566	.33084	.83182	.44918	.10947	.09397	.43841
#1	.03704	.04522	.14697	.03215	.07499	.12362	3.4232	.12177
#2	.03737	.04534	.14745	.03228	.07528	.12389	3.4296	.12237
#3	.03727	.04557	.14648	.03177	.07461	.12379	3.4256	.12130

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	.85481	.21202	.02831	.32769	.14902	.00403	.13725	.03885
Stddev	.00162	.00043	.00003	.00020	.00058	.00004	.00036	.00005
%RSD	.18962	.20202	.11873	.06229	.38680	.90501	.26554	.13229
#1	.85663	.21157	.02833	.32778	.14848	.00400	.13688	.03879
#2	.85425	.21242	.02827	.32783	.14963	.00402	.13726	.03888
#3	.85354	.21207	.02833	.32745	.14896	.00408	.13760	.03888

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	.19273	.04263	.04242	.04917	1.0812	.02774	.26204	.51350
Stddev	.00051	.00014	.00013	.00025	.0051	.00025	.00289	.00014
%RSD	.26629	.33724	.30451	.51028	.47110	.89693	1.1027	.02634
#1	.19332	.04247	.04254	.04909	1.0771	.02799	.25877	.51334
#2	.19248	.04268	.04228	.04945	1.0795	.02773	.26424	.51355
#3	.19238	.04275	.04243	.04897	1.0869	.02749	.26312	.51359

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	.07793	.28928	.00421	.02353	.01677	.55828	5.8098
Stddev	.00015	.00028	.00003	.00013	.00009	.00167	.0091
%RSD	.18751	.09779	.68203	.56086	.52553	.29893	.15693
#1	.07777	.28896	.00424	.02349	.01668	.55700	5.8010
#2	.07806	.28936	.00418	.02342	.01679	.56017	5.8192
#3	.07795	.28951	.00420	.02368	.01685	.55768	5.8094

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: S2 Acquired: 4/14/2025 13:22:20 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2819.5	67175.	13823.	1846.2	4431.1
Stddev	3.6	219.	32.	9.0	8.5
%RSD	.12930	.32635	.23156	.48961	.19126
#1	2816.3	67070.	13857.	1844.2	4421.4
#2	2818.6	67427.	13794.	1856.0	4436.1
#3	2823.5	67028.	13816.	1838.3	4435.9

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: S3 Acquired: 4/14/2025 13:26:29 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.11841	.14319	.46126	.10161	.23289	.38499	10.205	.39754
Stddev	.00031	.00104	.00138	.00018	.00065	.00019	.016	.00304
%RSD	.25988	.72373	.29954	.17487	.28051	.05024	.15524	.76489
#1	.11854	.14426	.46094	.10164	.23215	.38506	10.203	.39533
#2	.11806	.14310	.46008	.10143	.23313	.38514	10.221	.39628
#3	.11863	.14219	.46278	.10178	.23339	.38477	10.190	.40101

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.6904	.64518	.08626	1.0254	.45902	.01141	.41426	.12086
Stddev	.0050	.00243	.00016	.0014	.00091	.00003	.00159	.00094
%RSD	.18786	.37605	.18116	.13267	.19717	.25391	.38401	.77972
#1	2.6880	.64699	.08620	1.0252	.45821	.01142	.41272	.12086
#2	2.6870	.64243	.08615	1.0242	.45884	.01143	.41415	.11993
#3	2.6962	.64614	.08644	1.0269	.46000	.01138	.41590	.12181

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	.60471	.13083	.11603	.15096	3.2609	.07983	.85123	1.5735
Stddev	.00081	.00019	.00053	.00023	.0106	.00055	.00740	.0028
%RSD	.13371	.14547	.45520	.15179	.32429	.68543	.86910	.17693
#1	.60432	.13071	.11641	.15098	3.2593	.08021	.84727	1.5719
#2	.60417	.13074	.11624	.15072	3.2722	.08009	.84666	1.5718
#3	.60564	.13105	.11542	.15118	3.2512	.07921	.85977	1.5767

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	.24728	.87492	.01198	.07920	.05473	1.7088	17.354
Stddev	.00020	.00108	.00005	.00013	.00007	.0059	.156
%RSD	.08211	.12336	.38431	.16271	.13602	.34335	.90104
#1	.24731	.87385	.01193	.07918	.05472	1.7131	17.462
#2	.24707	.87490	.01202	.07934	.05466	1.7112	17.175
#3	.24747	.87601	.01198	.07909	.05481	1.7021	17.425

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: S3 Acquired: 4/14/2025 13:26:29 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2708.8	66416.	12797.	1792.6	4141.6
Stddev	5.5	192.	93.	3.0	3.7
%RSD	.20189	.28966	.72625	.16531	.09039
#1	2713.0	66441.	12818.	1793.3	4145.0
#2	2710.6	66594.	12878.	1789.3	4142.3
#3	2702.6	66212.	12696.	1795.1	4137.6

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: S4 Acquired: 4/14/2025 13:30:39 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.23922	.28529	.92265	.20408	.47087	.78685	20.152	.85290
Stddev	.00063	.00181	.00229	.00073	.00030	.00097	.384	.00165
%RSD	.26145	.63354	.24856	.35964	.06295	.12391	1.9077	.19314
#1	.23849	.28321	.92013	.20329	.47108	.78580	19.779	.85249
#2	.23954	.28646	.92321	.20474	.47053	.78773	20.131	.85149
#3	.23961	.28620	.92462	.20422	.47101	.78700	20.547	.85471

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	5.4035	1.2791	.17263	2.0542	.91067	.02168	.82435	.24783
Stddev	.0193	.0043	.00006	.0039	.00139	.00007	.00382	.00141
%RSD	.35702	.33386	.03763	.19146	.15212	.33827	.46345	.56949
#1	5.3842	1.2745	.17264	2.0513	.90907	.02161	.82168	.24722
#2	5.4034	1.2798	.17268	2.0527	.91153	.02167	.82264	.24683
#3	5.4228	1.2829	.17256	2.0587	.91141	.02176	.82872	.24944

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.2060	.26510	.22157	.30504	6.5094	.15409	1.8327	3.1516
Stddev	.0032	.00033	.00053	.00052	.0148	.00044	.0009	.0065
%RSD	.26722	.12518	.24009	.16896	.22702	.28588	.05099	.20463
#1	1.2027	.26472	.22096	.30445	6.5001	.15360	1.8318	3.1442
#2	1.2062	.26535	.22194	.30538	6.5265	.15446	1.8327	3.1554
#3	1.2091	.26522	.22182	.30530	6.5017	.15421	1.8337	3.1552

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	.49617	1.7561	.02327	.15871	.11105	3.5225	34.086
Stddev	.00151	.0050	.00002	.00040	.00038	.0068	.175
%RSD	.30485	.28482	.07968	.24921	.34203	.19406	.51458
#1	.49449	1.7518	.02325	.15864	.11072	3.5167	34.229
#2	.49659	1.7549	.02327	.15913	.11097	3.5208	33.890
#3	.49743	1.7616	.02329	.15835	.11146	3.5300	34.140

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: S4 Acquired: 4/14/2025 13:30:39 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2659.5	64016.	11716.	1719.7	4025.8
Stddev	5.3	120.	34.	4.3	3.0
%RSD	.19746	.18727	.28953	.25065	.07515
#1	2655.4	64058.	11729.	1724.0	4022.3
#2	2657.8	64110.	11741.	1719.6	4027.7
#3	2665.4	63881.	11677.	1715.4	4027.3

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: S5 Acquired: 4/14/2025 13:34:53 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.48516	.56059	1.8616	.41228	.95791	1.6402	43.347	1.5269
Stddev	.00109	.00707	.0019	.00169	.00383	.0033	.555	.0161
%RSD	.22568	1.2606	.10441	.40917	.39998	.20080	1.2811	1.0527
#1	.48612	.56867	1.8616	.41423	.96218	1.6439	43.909	1.5454
#2	.48397	.55559	1.8635	.41132	.95478	1.6389	42.799	1.5170
#3	.48539	.55750	1.8596	.41130	.95677	1.6377	43.335	1.5182

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	11.009	2.6898	.34108	4.2031	1.8130	.04932	1.7130	.51002
Stddev	.016	.0181	.00063	.0046	.0041	.00010	.0109	.00398
%RSD	.14725	.67434	.18420	.11073	.22739	.20467	.63873	.78035
#1	11.008	2.7105	.34070	4.2008	1.8177	.04921	1.7252	.51459
#2	11.026	2.6825	.34074	4.2084	1.8109	.04934	1.7040	.50726
#3	10.994	2.6766	.34180	4.2000	1.8103	.04941	1.7100	.50823

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	2.4516	.53661	.54664	.63819	13.095	.37068	3.3074	6.2713
Stddev	.0042	.00070	.00533	.00274	.046	.00343	.0372	.0132
%RSD	.17121	.12993	.97556	.42877	.35037	.92482	1.1241	.21029
#1	2.4512	.53667	.54140	.64126	13.086	.36713	3.3501	6.2866
#2	2.4560	.53588	.54646	.63600	13.055	.37094	3.2816	6.2637
#3	2.4477	.53727	.55206	.63732	13.145	.37397	3.2907	6.2638

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1.0042	3.7061	.05353	.32658	.23299	7.4900	72.630
Stddev	.0019	.0156	.00041	.00041	.00046	.0259	.596
%RSD	.18543	.42163	.76833	.12679	.19625	.34593	.82031
#1	1.0055	3.7227	.05307	.32699	.23349	7.4936	73.296
#2	1.0050	3.6916	.05366	.32616	.23259	7.4624	72.148
#3	1.0020	3.7039	.05386	.32659	.23290	7.5139	72.447

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: S5 Acquired: 4/14/2025 13:34:53 Type: Cal
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2580.5	62712.	12814.	1654.3	3804.9
Stddev	1.1	71.	136.	2.9	3.6
%RSD	.04452	.11391	1.0590	.17584	.09498
#1	2579.2	62728.	12657.	1657.2	3805.6
#2	2581.2	62774.	12889.	1654.3	3800.9
#3	2581.2	62634.	12895.	1651.4	3808.1

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: ICV01 Acquired: 4/14/2025 13:56:56 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.057501	1.033241	1.000260	1.049246	1.044857	2.359020
Stddev	.006374	.009677	.000990	.004158	.005366	.006183
%RSD	.6027784	.9365734	.0989945	.3963053	.5135640	.2620798
#1	1.064828	1.041615	.999594	1.053731	1.051051	2.357756
#2	1.054442	1.035461	1.001398	1.048488	1.041891	2.365737
#3	1.053232	1.022647	.999788	1.045519	1.041629	2.353567

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5337391	.4957363	.5069134	9.362105	.5073903	.4903304
Stddev	.0032763	.0011893	.0007934	.043412	.0014087	.0012222
%RSD	.6138471	.2399127	.1565100	.4636988	.2776399	.2492690
#1	.5300053	.4943736	.5063590	9.316887	.5086323	.4899676
#2	.5361337	.4965655	.5078222	9.365974	.5058596	.4916930
#3	.5350782	.4962699	.5065589	9.403452	.5076789	.4893307

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5127434	9.383237	.4829514	5.994581	.4938373	.2457877
Stddev	.0029749	.032489	.0039747	.047699	.0005068	.0010944
%RSD	.5801919	.3462404	.8230095	.7957089	.1026157	.4452708
#1	.5161616	9.346434	.4783785	5.940471	.4932659	.2458881
#2	.5107389	9.395343	.4848990	6.030542	.4940140	.2446466
#3	.5113299	9.407935	.4855768	6.012730	.4942321	.2468285

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.08781	.4742714	.9935412	9.741589	F -.009678	F -.000363
Stddev	.03358	.0032535	.0031673	.049355	.000859	.000132
%RSD	.3329041	.6859951	.3187904	.5066414	8.871460	36.28653
#1	10.04905	.4708516	.9971322	9.782832	-.009594	-.000427
#2	10.10839	.4746343	.9923463	9.686906	-.010576	-.000451
#3	10.10598	.4773281	.9911452	9.755030	-.008865	-.000212

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: ICV01 Acquired: 4/14/2025 13:56:56 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.001595	F -.001002	F -.001296	F .0053613	F .0016229	F .0019115
Stddev	.001296	.000563	.005290	.0017797	.0031990	.0002192
%RSD	81.25814	56.23780	408.2052	33.19552	197.1160	11.46817
#1	-.001765	-.001506	.004343	.0038666	.0040768	.0016755
#2	-.000222	-.001106	-.002081	.0073300	-.001995	.0021089
#3	-.002798	-.000394	-.006149	.0048872	.002787	.0019499

Elem	Sr4077
Units	ppm
Avg	F .0011184
Stddev	.0000302
%RSD	2.696014
#1	.0011507
#2	.0011133
#3	.0010911

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2718.615	65862.08	13031.76	1775.639	4258.600
Stddev	12.151	246.48	14.96	7.525	6.006
%RSD	.4469658	.3742432	.1147814	.4237920	.1410328
#1	2704.663	65683.26	13048.49	1769.232	4257.783
#2	2726.880	66143.25	13027.09	1783.926	4253.045
#3	2724.302	65759.73	13019.69	1773.760	4264.973

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: LLICV01 Acquired: 4/14/2025 14:01:08 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LLICV Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0227893	.0418343	.0123649	.0190461	.0532142	.0975031	.0960501
Stddev	.0015849	.0007695	.0005014	.0014662	.0018150	.0025698	.0007404
%RSD	6.954646	1.839480	4.054936	7.698244	3.410707	2.635587	.7708721
#1	.0223958	.0418524	.0127023	.0195539	.0514324	.0972468	.0952069
#2	.0214382	.0410558	.0117887	.0201909	.0550606	.0950710	.0963490
#3	.0245338	.0425946	.0126036	.0173935	.0531494	.1001914	.0965943

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0060014	.0061218	1.978376	.0098072	.0295510	.0226213	.0994245
Stddev	.0000963	.0000265	.005711	.0000368	.0001172	.0002042	.0045739
%RSD	1.604031	.4324787	.2886888	.3756752	.3964366	.9024496	4.600396
#1	.0058905	.0061445	1.973767	.0098164	.0295345	.0227871	.0941474
#2	.0060497	.0061281	1.976596	.0098386	.0294430	.0226836	.1022504
#3	.0060639	.0060927	1.984765	.0097666	.0296756	.0223933	.1018757

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0205692	2.080715	.0395081	.0100375	1.838124	.0404484	.0416406
Stddev	.0006205	.016312	.0001840	.0001132	.026267	.0006190	.0003608
%RSD	3.016518	.7839730	.4657026	1.127332	1.429030	1.530381	.8664781
#1	.0201527	2.074314	.0396748	.0101600	1.867350	.0406460	.0419939
#2	.0202726	2.068575	.0395389	.0100156	1.816487	.0409445	.0412727
#3	.0212823	2.099257	.0393107	.0099369	1.830535	.0397547	.0416553

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.921338	.1080123	.2116963	.0395785	.0397798	.3221741	.0218066
Stddev	.022532	.0010407	.0014531	.0007899	.0002400	.0065921	.0007453
%RSD	1.172709	.9634554	.6863906	1.995861	.6033634	2.046129	3.417654
#1	1.944608	.1068109	.2132731	.0404827	.0395349	.3250910	.0212511
#2	1.919782	.1085952	.2104111	.0390227	.0400146	.3268046	.0215152
#3	1.899625	.1086309	.2114048	.0392300	.0397899	.3146268	.0226536

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: LLICV01 Acquired: 4/14/2025 14:01:08 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LLICV Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0195826	.0187333	.0200304
Stddev	.0010927	.0008088	.0000366
%RSD	5.580062	4.317229	.1826557
#1	.0203363	.0178097	.0200461
#2	.0200822	.0193150	.0199886
#3	.0183294	.0190751	.0200565

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2778.742	66985.72	13128.46	1834.829	4408.992
Stddev	9.135	215.68	53.63	9.817	5.945
%RSD	.3287416	.3219836	.4084725	.5350359	.1348435
#1	2769.650	66758.12	13188.37	1825.701	4402.419
#2	2778.655	67011.95	13084.95	1833.573	4413.994
#3	2787.920	67187.09	13112.05	1845.214	4410.562

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: ICB01 Acquired: 4/14/2025 14:05:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009095	-.000535	.0002753	.0001565	-.000541	.0028645	.0000981
Stddev	.0009381	.001648	.0003458	.0018769	.001822	.0056359	.0003041
%RSD	103.1414	307.6805	125.5998	1199.442	336.8530	196.7513	310.0664
#1	.0015356	-.001274	.0000340	-.001506	.001561	.0031071	-.000205
#2	.0013620	.001352	.0001204	-.000216	-.001517	-.002889	.000404
#3	-.000169	-.001684	.0006714	.002192	-.001667	.008375	.000095

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000286	-.000125	-.015658	-.000119	-.000017	.0001345	-.000760
Stddev	.0000247	.000069	.001546	.000113	.000051	.0002971	.003334
%RSD	86.24025	55.13202	9.875477	94.59249	307.1495	220.8575	438.9243
#1	.0000570	-.000046	-.015450	.000001	-.000008	.0004201	.002895
#2	.0000122	-.000169	-.014226	-.000223	-.000071	.0001565	-.003635
#3	.0000167	-.000159	-.017298	-.000135	.000030	-.000173	-.001539

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007962	.0051026	-.000013	-.000216	-.005808	.0017189	-.000342
Stddev	.0002033	.0134907	.000207	.000184	.010896	.0019767	.000123
%RSD	25.53490	264.3899	1617.616	85.14773	187.6121	115.0036	35.88194
#1	.0006459	.0093755	.000213	-.000349	-.012871	.0022768	-.000239
#2	.0007152	-.010007	-.000192	-.000006	-.011294	-.000477	-.000478
#3	.0010275	.015939	-.000059	-.000292	.006741	.003357	-.000309

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.026630	.0018003	-.000207	-.000421	-.000757	.0121277	-.000072
Stddev	.011795	.0000971	.000081	.000805	.000238	.0017364	.001522
%RSD	44.29062	5.394015	39.08526	191.2611	31.39717	14.31764	2126.021
#1	-.027151	.0019109	-.000115	-.000897	-.000566	.0137013	-.000127
#2	-.014584	.0017291	-.000265	-.000874	-.000681	.0124170	.001478
#3	-.038156	.0017609	-.000243	.000509	-.001023	.0102648	-.001566

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: ICB01 Acquired: 4/14/2025 14:05:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001035	-.002146	-.000171
Stddev	.001747	.000404	.000043
%RSD	168.8088	18.81450	25.21411
#1	-.001796	-.002504	-.000205
#2	-.002273	-.002224	-.000187
#3	.000964	-.001708	-.000123

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2774.118	67685.07	13187.78	1851.767	4428.802
Stddev	5.871	144.30	87.13	6.252	7.696
%RSD	.2116224	.2131994	.6606580	.3376390	.1737613
#1	2769.439	67667.29	13217.76	1858.946	4426.215
#2	2780.706	67837.44	13089.63	1848.845	4437.458
#3	2772.210	67550.48	13255.96	1847.512	4422.734

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CRI01 Acquired: 4/14/2025 14:09:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0223440	.0418003	.0122450	.0196346	.0517182	.0917469	.0956099
Stddev	.0006660	.0007114	.0006646	.0005770	.0021955	.0077840	.0009149
%RSD	2.980470	1.701963	5.427379	2.938500	4.245120	8.484176	.9568792
#1	.0230573	.0423138	.0116235	.0191081	.0493237	.0999648	.0965041
#2	.0217385	.0420988	.0121660	.0202514	.0536366	.0907906	.0946757
#3	.0222362	.0409883	.0129456	.0195444	.0521942	.0844852	.0956499

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0057582	.0060793	1.970634	.0096748	.0293443	.0226546	.1016313
Stddev	.0000623	.0000468	.006751	.0001391	.0002479	.0002872	.0046421
%RSD	1.081396	.7700938	.3425750	1.437363	.8446659	1.267657	4.567538
#1	.0057934	.0061039	1.975518	.0098143	.0295802	.0224279	.1042061
#2	.0056863	.0061088	1.962931	.0096739	.0290860	.0229775	.1044154
#3	.0057948	.0060253	1.973454	.0095362	.0293665	.0225583	.0962725

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0204159	2.058943	.0393922	.0098755	1.839906	.0407478	.0410169
Stddev	.0002783	.012017	.0003591	.0002946	.028182	.0003444	.0004100
%RSD	1.362908	.5836480	.9117026	2.983284	1.531698	.8452538	.9994606
#1	.0203228	2.071557	.0390678	.0101996	1.860565	.0410299	.0409819
#2	.0207288	2.047628	.0397781	.0098031	1.851351	.0408495	.0414432
#3	.0201962	2.057644	.0393305	.0096239	1.807802	.0403640	.0406255

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.932960	.1005690	.2134214	.0399294	.0401463	.3405009	.0206699
Stddev	.031462	.0009768	.0001174	.0005473	.0003875	.0075690	.0029763
%RSD	1.627655	.9713120	.0550188	1.370679	.9651880	2.222912	14.39938
#1	1.908096	.1011101	.2132967	.0393011	.0397029	.3484475	.0175778
#2	1.968331	.0994413	.2134376	.0403027	.0404202	.3333765	.0235151
#3	1.922453	.1011554	.2135298	.0401844	.0403157	.3396787	.0209167

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CRI01 Acquired: 4/14/2025 14:09:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0201602	.0187081	.0200434
Stddev	.0057891	.0006850	.0000878
%RSD	28.71576	3.661694	.4379598
#1	.0135414	.0194869	.0201240
#2	.0226586	.0181989	.0199499
#3	.0242805	.0184385	.0200565

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2777.124	67546.73	13662.85	1825.250	4436.871
Stddev	2.092	129.66	39.14	3.300	7.093
%RSD	.0753157	.1919593	.2865068	.1807805	.1598751
#1	2778.279	67610.34	13623.69	1824.740	4440.905
#2	2778.383	67397.55	13701.98	1822.234	4441.028
#3	2774.709	67632.30	13662.87	1828.775	4428.681

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: ICSA01 Acquired: 4/14/2025 14:14:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0107698	.0054923	.0050291	-.000723	.0013839	235.8746
Stddev	.0015933	.0007631	.0029832	.005372	.0016963	4.0153
%RSD	14.79396	13.89463	59.31844	743.1900	122.5750	1.702305
#1	.0101949	.0051087	.0028753	-.006731	.0008762	235.7283
#2	.0125707	.0063711	.0084342	.000946	-.000001	239.9611
#3	.0095437	.0049970	.0037780	.003617	.003276	231.9345

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046882	.0013175	-.001943	226.3098	.0551878	.0017709
Stddev	.0004501	.0000285	.000127	.6132	.0006032	.0002353
%RSD	9.600306	2.162489	6.511892	.2709351	1.093013	13.28796
#1	.0050399	.0013132	-.001854	226.1325	.0549448	.0017786
#2	.0048438	.0012914	-.001887	226.9921	.0558746	.0015318
#3	.0041810	.0013479	-.002088	225.8048	.0547439	.0020022

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0092615	99.02089	-.000134	242.4424	.0012000	-.003742
Stddev	.0003791	.63602	.000190	.9961	.0004278	.000103
%RSD	4.093701	.6423135	141.9187	.4108678	35.65096	2.739669
#1	.0093991	98.42049	-.000279	242.6579	.0016498	-.003727
#2	.0095526	98.95482	.000082	243.3132	.0011522	-.003648
#3	.0088328	99.68738	-.000205	241.3562	.0007981	-.003851

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0814294	.0037803	.0041033	.0118367	-.090423	-.000029
Stddev	.0045592	.0010517	.0006489	.0247439	.002310	.000436
%RSD	5.598921	27.82074	15.81333	209.0442	2.554862	1508.872
#1	.0794157	.0027500	.0048296	.0139640	-.091405	.000226
#2	.0866487	.0048522	.0035808	-.013902	-.092080	.000219
#3	.0782237	.0037387	.0038996	.035448	-.087784	-.000533

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: ICSA01 Acquired: 4/14/2025 14:14:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005979	-.001346	.0196425	.0025661	-.014142	.0038594
Stddev	.001361	.000291	.0034961	.0036469	.006563	.0008416
%RSD	22.76577	21.58686	17.79855	142.1221	46.41138	21.80718
#1	-.007100	-.001195	.0231331	.0065394	-.019426	.0033321
#2	-.006373	-.001681	.0161409	.0017875	-.006795	.0048300
#3	-.004464	-.001162	.0196535	-.000629	-.016204	.0034161

Elem	Sr4077
Units	ppm
Avg	F .0951038
Stddev	.0002469
%RSD	.2595768
#1	.0948239
#2	.0952905
#3	.0951971

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2456.379	58835.46	13170.88	1581.638	3562.561
Stddev	5.546	151.96	75.26	.834	7.799
%RSD	.2257797	.2582793	.5714185	.0527429	.2189193
#1	2452.344	59010.93	13152.96	1580.732	3565.663
#2	2462.703	58748.45	13106.19	1582.375	3568.333
#3	2454.090	58747.02	13253.48	1581.807	3553.689

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: ICSAB01 Acquired: 4/14/2025 14:18:32 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1138412	.1032843	.0538474	.0470558	.6462207	236.4107
Stddev	.0053064	.0031155	.0016875	.0015543	.0044182	1.3978
%RSD	4.661206	3.016485	3.133945	3.303148	.6837038	.5912665
#1	.1162706	.1068074	.0553787	.0454051	.6495870	238.0226
#2	.1077551	.1021529	.0520381	.0472711	.6412176	235.6768
#3	.1174980	.1008924	.0541253	.0484913	.6478574	235.5327

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4787595	.4932019	1.042878	226.1740	.5525692	.5070907
Stddev	.0015257	.0017049	.001882	.3493	.0018313	.0011848
%RSD	.3186798	.3456716	.1804490	.1544258	.3314111	.2336391
#1	.4804703	.4923329	1.040718	226.2682	.5505840	.5061930
#2	.4782685	.4921066	1.044167	225.7873	.5529312	.5066456
#3	.4775398	.4951662	1.043747	226.4666	.5541925	.5084336

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5063698	95.22607	.4705768	242.9648	.9999994	.1793076
Stddev	.0015019	.04718	.0003346	.5371	.0018794	.0002930
%RSD	.2966045	.0495471	.0711097	.2210533	.1879442	.1634177
#1	.5073053	95.17272	.4703371	243.3512	.9987756	.1790992
#2	.5046373	95.24321	.4704343	242.3515	.9990593	.1791810
#3	.5071667	95.26229	.4709591	243.1917	1.002163	.1796426

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0665623	.4730783	1.039448	-.012325	F -.110759	F -.000417
Stddev	.0061096	.0028366	.006139	.007811	.001709	.000490
%RSD	9.178758	.5996024	.5906102	63.37931	1.542993	117.5905
#1	.0660365	.4762247	1.033579	-.003863	-.111213	-.000730
#2	.0729178	.4722935	1.038938	-.019261	-.108868	.000148
#3	.0607326	.4707168	1.045826	-.013851	-.112194	-.000669

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: ICSAB01 Acquired: 4/14/2025 14:18:32 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.004811	F -.002715	F .0119298	F .0028129	F -.009537	F .0014784
Stddev	.000571	.000454	.0020671	.0021506	.008513	.0010637
%RSD	11.86408	16.73289	17.32730	76.45530	89.26457	71.94955
#1	-.004951	-.003222	.0106683	.0003812	-.019171	.0004567
#2	-.005299	-.002346	.0108057	.0035924	-.003031	.0025797
#3	-.004183	-.002576	.0143154	.0044650	-.006408	.0013988

Elem	Sr4077
Units	ppm
Avg	F .0954914
Stddev	.0004858
%RSD	.5086865
#1	.0960513
#2	.0952389
#3	.0951838

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2447.426	59645.68	12692.71	1610.678	3541.487
Stddev	2.335	96.32	34.21	4.518	1.642
%RSD	.0953870	.1614838	.2695515	.2805207	.0463710
#1	2444.885	59746.50	12703.95	1615.868	3543.063
#2	2449.476	59635.94	12719.89	1607.615	3539.785
#3	2447.918	59554.61	12654.29	1608.553	3541.613

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: ICSADLX20 Acquired: 4/14/2025 14:22:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSADLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0020450	-.000729	.0005994	-.001710	-.000070	11.60726
Stddev	.0032550	.000187	.0006533	.000550	.000735	.03043
%RSD	159.1651	25.64271	108.9988	32.17951	1056.772	.2621330
#1	.0029896	-.000513	-.000042	-.002026	.000474	11.61762
#2	-.001578	-.000824	.001264	-.002028	.000224	11.63116
#3	.004723	-.000848	.000576	-.001074	-.000906	11.57301

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001168	.0001106	-.000136	11.50165	.0025300	-.000034
Stddev	.000367	.0000705	.000048	.01534	.0003901	.000114
%RSD	31.43750	63.72421	35.20607	.1334053	15.41683	332.3748
#1	-.001541	.0000330	-.000081	11.48435	.0023648	.000012
#2	-.001156	.0001282	-.000166	11.51363	.0022498	.000049
#3	-.000807	.0001706	-.000160	11.50697	.0029755	-.000165

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006675	F 4.246804	.0003854	11.92901	-.000175	-.000298
Stddev	.0001695	.019268	.0005746	.01099	.000182	.000236
%RSD	25.39102	.4536986	149.1016	.0921196	103.6912	79.36423
#1	.0005620	4.266220	-.000210	11.91717	-.000002	-.000542
#2	.0005775	4.227688	.000430	11.93099	-.000160	-.000070
#3	.0008630	4.246505	.000936	11.93888	-.000364	-.000281

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.050530	.0012037	-.000180	-.036655	-.008794	-.000100
Stddev	.008417	.0009095	.000088	.017400	.000675	.000215
%RSD	16.65763	75.55907	49.17170	47.47012	7.673818	214.7116
#1	-.054412	.0011104	-.000280	-.049186	-.008342	.000139
#2	-.056306	.0021563	-.000149	-.043992	-.008469	-.000278
#3	-.040872	.0003445	-.000111	-.016788	-.009570	-.000161

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: ICSADLX20 Acquired: 4/14/2025 14:22:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSADLX20 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001486	-.000599	.0058004	.0013857	.0010042	-.001254
Stddev	.000876	.000626	.0008703	.0019162	.0034118	.000269
%RSD	58.99304	104.4197	15.00433	138.2842	339.7668	21.45351
#1	-.000627	-.000053	.0056760	-.000820	.0037437	-.001514
#2	-.002379	-.000462	.0067263	.002644	-.002817	-.000976
#3	-.001451	-.001282	.0049990	.002333	.002086	-.001271

Elem	Sr4077
Units	ppm
Avg	.0046682
Stddev	.0000383
%RSD	.8202797
#1	.0047012
#2	.0046772
#3	.0046262

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2770.707	67067.76	11782.25	1827.213	4319.386
Stddev	7.588	288.55	29.67	7.977	6.338
%RSD	.2738611	.4302390	.2518127	.4365535	.1467347
#1	2763.325	66894.91	11806.60	1822.282	4314.545
#2	2778.485	67400.87	11749.20	1836.416	4326.560
#3	2770.313	66907.50	11790.94	1822.940	4317.054

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: ICSABDLX20 Acquired: 4/14/2025 14:27:04 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSABDLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0100480	.0051612	.0033170	.0005228	.0318619	11.49939	.0250976
Stddev	.0023004	.0030984	.0017315	.0041753	.0009733	.02421	.0002310
%RSD	22.89432	60.03280	52.20018	798.6092	3.054716	.2105240	.9202444
#1	.0112479	.0030072	.0052444	.0041412	.0307553	11.49068	.0248531
#2	.0073957	.0037642	.0018931	.0014730	.0322452	11.48073	.0253121
#3	.0115005	.0087121	.0028135	-.004046	.0325851	11.52674	.0251274

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0249502	.0509936	11.63855	.0277591	.0242464	.0260972	4.663872
Stddev	.0002731	.0000693	.05251	.0000648	.0001994	.0003586	.021955
%RSD	1.094671	.1358722	.4511869	.2332564	.8222763	1.373897	.4707461
#1	.0246371	.0509855	11.58053	.0278286	.0244732	.0261222	4.672897
#2	.0251395	.0509288	11.68283	.0277481	.0241670	.0257268	4.679877
#3	.0250740	.0510666	11.65229	.0277005	.0240989	.0264426	4.638843

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0250007	11.81450	.0492001	.0081455	-.018578	.0243027	.0503069
Stddev	.0005571	.08343	.0001991	.0003008	.004802	.0006825	.0002994
%RSD	2.228239	.7061809	.4046141	3.693380	25.84705	2.808346	.5952407
#1	.0245341	11.71880	.0490683	.0079650	-.022195	.0237804	.0499620
#2	.0256175	11.85271	.0491029	.0084927	-.020410	.0250750	.0504577
#3	.0248507	11.87198	.0494291	.0079786	-.013130	.0240529	.0505009

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.089602	-.007070	-.000055	-.001786	-.000456	.0080257	.0004681
Stddev	.007036	.000338	.000260	.000219	.000608	.0019976	.0016775
%RSD	7.852746	4.785149	469.3809	12.28094	133.3230	24.89016	358.3760
#1	-.096234	-.006696	-.000274	-.001730	-.001088	.0071059	.0019027
#2	-.082221	-.007161	-.000124	-.002027	-.000404	.0103175	-.001376
#3	-.090351	-.007354	.000232	-.001600	.000124	.0066536	.000878

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: ICSABDLX20 Acquired: 4/14/2025 14:27:04 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSABDLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0031549	-.000742	.0047736
Stddev	.0018412	.000510	.0000321
%RSD	58.36020	68.75959	.6717526
#1	.0052245	-.001223	.0047369
#2	.0025412	-.000795	.0047877
#3	.0016989	-.000207	.0047963

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2742.309	68029.49	13300.55	1850.099	4279.235
Stddev	2.899	53.04	67.50	6.944	5.944
%RSD	.1056966	.0779668	.5075306	.3753150	.1389019
#1	2739.394	67968.60	13376.47	1857.453	4275.177
#2	2745.190	68065.65	13277.89	1843.656	4286.058
#3	2742.343	68054.22	13247.29	1849.189	4276.470

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCV01 Acquired: 4/14/2025 14:31:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.907529	5.047399	4.937839	4.925506	4.923125	9.747603	9.640581
Stddev	.012662	.035068	.016657	.013711	.010959	.005053	.056457
%RSD	.2580169	.6947716	.3373249	.2783700	.2225931	.0518389	.5856228
#1	4.896389	5.007155	4.919749	4.922761	4.913598	9.744679	9.623694
#2	4.904897	5.063639	4.941226	4.913374	4.920675	9.744692	9.703555
#3	4.921300	5.071403	4.952541	4.940382	4.935101	9.753438	9.594494

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2557222	2.462789	24.39178	1.001308	2.462000	1.243287	4.829014
Stddev	.0007898	.007938	.08045	.001783	.006749	.003474	.014301
%RSD	.3088677	.3222976	.3298404	.1780382	.2741312	.2794186	.2961479
#1	.2566254	2.455163	24.42090	.999271	2.455472	1.240606	4.823668
#2	.2551608	2.462198	24.30082	1.002073	2.461578	1.242043	4.818156
#3	.2553804	2.471005	24.45361	1.002581	2.468950	1.247211	4.845218

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.440414	24.36680	2.461376	1.246640	23.81924	2.444548	2.512587
Stddev	.007227	.13520	.007500	.001895	.05383	.006234	.011877
%RSD	.2961338	.5548335	.3047008	.1520430	.2259742	.2550004	.4727177
#1	2.446009	24.29602	2.455470	1.246323	23.84630	2.451347	2.499450
#2	2.432255	24.28169	2.458844	1.248674	23.85417	2.439101	2.522567
#3	2.442978	24.52269	2.469815	1.244923	23.75725	2.443198	2.515745

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.80082	5.094817	4.999308	4.955782	4.854846	4.767152	4.936648
Stddev	.06759	.016847	.012778	.025349	.007224	.024712	.014304
%RSD	.2839616	.3306617	.2555879	.5115044	.1487987	.5183803	.2897573
#1	23.79959	5.114130	4.988712	4.933909	4.863078	4.748808	4.934097
#2	23.86901	5.087174	4.995713	4.949872	4.851896	4.757394	4.923792
#3	23.73386	5.083146	5.013498	4.983563	4.849565	4.795253	4.952057

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCV01 Acquired: 4/14/2025 14:31:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.865845	4.868245	4.894648
Stddev	.019477	.010174	.036500
%RSD	.4002781	.2089890	.7457221
#1	4.845352	4.877773	4.896636
#2	4.884115	4.869432	4.857194
#3	4.868069	4.857529	4.930114

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2689.929	64107.09	12420.37	1724.308	4063.001
Stddev	6.257	101.10	21.25	9.442	11.179
%RSD	.2325992	.1576990	.1710573	.5475759	.2751536
#1	2692.136	64222.33	12405.25	1734.557	4070.537
#2	2694.783	64033.35	12444.66	1715.964	4068.311
#3	2682.868	64065.58	12411.19	1722.404	4050.157

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCB01 Acquired: 4/14/2025 14:35:31 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0035805	.0000334	.0006423	-.002423	.0010170	-.000434	-.000714
Stddev	.0005409	.0004532	.0012852	.001588	.0008246	.000808	.000638
%RSD	15.10593	1357.608	200.1000	65.53085	81.07985	186.0715	89.27533
#1	.0037790	-.000145	.0009802	-.000603	.0008180	.000147	-.000051
#2	.0039941	-.000303	.0017247	-.003523	.0003101	-.001357	-.001322
#3	.0029684	.000549	-.000778	-.003144	.0019228	-.000093	-.000770

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000244	-.000077	-.002142	-.000314	.0000913	-.000080	-.005489
Stddev	.0000350	.000044	.005670	.000333	.0002458	.000350	.002676
%RSD	143.7194	57.22717	264.7624	106.1983	269.1606	436.9808	48.74614
#1	.0000475	-.000026	.004062	.000018	-.000133	.000323	-.002899
#2	.0000416	-.000105	-.007057	-.000312	.000354	-.000260	-.008243
#3	-.000016	-.000099	-.003429	-.000648	.000053	-.000302	-.005326

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002985	.0047269	-.000310	.0000119	-.038744	.0006306	-.000621
Stddev	.0004126	.0060725	.000084	.0003222	.009156	.0004525	.000259
%RSD	138.2565	128.4677	27.08627	2711.198	23.63346	71.76463	41.63253
#1	.0000940	-.000027	-.000399	.0001184	-.048818	.0003116	-.000542
#2	.0007734	.002640	-.000232	-.000350	-.030928	.0004317	-.000910
#3	.0000280	.011568	-.000298	.000267	-.036485	.0011485	-.000411

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.063751	.0056929	-.000007	-.000436	.0004699	.0125556	.0037255
Stddev	.007608	.0002540	.000201	.000114	.0004811	.0032444	.0029090
%RSD	11.93398	4.461015	2730.671	26.14283	102.3980	25.84065	78.08381
#1	-.055148	.0056359	.000201	-.000409	.0003158	.0139473	.0003978
#2	-.066511	.0054723	-.000200	-.000339	.0010092	.0148721	.0057857
#3	-.069594	.0059705	-.000023	-.000562	.0000846	.0088475	.0049930

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCB01 Acquired: 4/14/2025 14:35:31 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0014328	-.000946	-.000093
Stddev	.0017527	.000195	.000025
%RSD	122.3331	20.67007	27.27219
#1	.0011088	-.000765	-.000109
#2	.0033248	-.000918	-.000064
#3	-.000135	-.001153	-.000106

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2763.827	66588.13	13242.46	1780.894	4488.543
Stddev	2.016	56.83	46.05	10.592	1.072
%RSD	.0729527	.0853445	.3477168	.5947648	.0238759
#1	2762.189	66628.17	13293.52	1780.060	4487.677
#2	2763.214	66523.09	13229.76	1770.744	4489.742
#3	2766.079	66613.14	13204.09	1791.879	4488.211

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1743-04 Acquired: 4/14/2025 14:39:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003548	-.008588	.4441389	.0055056	.0022213	.0123606	.4942526
Stddev	.000755	.002184	.0008166	.0009914	.0021374	.0050057	.0011643
%RSD	21.27746	25.43711	.1838553	18.00788	96.22119	40.49677	.2355658
#1	-.004237	-.006323	.4431978	.0047693	.0011244	.0117758	.4929436
#2	-.002741	-.010682	.4445584	.0066329	.0046844	.0176330	.4951724
#3	-.003666	-.008758	.4446604	.0051145	.0008551	.0076731	.4946418

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000010	.0009836	33.98492	.0011321	.0353183	.0268232	.3619080
Stddev	.000037	.0000417	.12921	.0002301	.0001960	.0005607	.0034559
%RSD	365.9858	4.244087	.3801839	20.32064	.5549504	2.090293	.9549129
#1	-.000052	.0010059	33.83705	.0009979	.0350931	.0270098	.3625620
#2	.000012	.0009355	34.07600	.0010006	.0354115	.0261930	.3581719
#3	.000010	.0010095	34.04171	.0013977	.0354503	.0272667	.3649903

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8588559	8.580820	.0107680	-.000189	403.3876	.0009913	.4235103
Stddev	.0053332	.078637	.0003724	.000168	3.7800	.0006335	.0011137
%RSD	.6209634	.9164283	3.458863	88.49589	.9370736	63.89993	.2629737
#1	.8527078	8.490520	.0105131	-.000118	407.6990	.0017122	.4227052
#2	.8622357	8.617710	.0105955	-.000069	400.6422	.0005236	.4247813
#3	.8616243	8.634230	.0111954	-.000381	401.8217	.0007382	.4230444

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7957800	.0387096	.0000773	-.002036	-.001616	.6991795	.0121218
Stddev	.0371264	.0002520	.0002175	.000390	.000289	.0097185	.0028448
%RSD	4.665406	.6510479	281.4533	19.15638	17.86733	1.389991	23.46884
#1	.8011991	.0385046	.0003127	-.001987	-.001932	.7065787	.0152754
#2	.8298989	.0386333	.0000354	-.002449	-.001550	.6881732	.0097486
#3	.7562418	.0389910	-.000116	-.001673	-.001366	.7027868	.0113414

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1743-04 Acquired: 4/14/2025 14:39:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5652993	-.008076	.1002221
Stddev	.0036252	.000249	.0002603
%RSD	.6412871	3.079948	.2597535
#1	.5659906	-.007924	.0999323
#2	.5685291	-.008363	.1004363
#3	.5613783	-.007941	.1002977

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2518.020	61613.70	13767.70	1652.327	3722.652
Stddev	5.323	107.45	32.40	3.073	2.576
%RSD	.2113841	.1743858	.2353378	.1859749	.0691923
#1	2523.240	61489.72	13784.53	1649.139	3722.243
#2	2512.600	61671.78	13730.34	1652.572	3720.305
#3	2518.219	61679.61	13788.21	1655.270	3725.408

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1743-04DUP Acquired: 4/14/2025 14:44:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002966	-.006614	.4436653	.0010381	.0034838	.0103903	.4887903
Stddev	.002295	.001790	.0006488	.0005315	.0007730	.0070961	.0008231
%RSD	77.36715	27.06823	.1462334	51.19835	22.18960	68.29569	.1683928
#1	-.005392	-.007969	.4438738	.0006903	.0027339	.0048033	.4893506
#2	-.002675	-.007288	.4429380	.0016500	.0042781	.0183746	.4891750
#3	-.000831	-.004584	.4441843	.0007742	.0034394	.0079930	.4878453

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000019	.0010014	33.96056	.0028478	.0352941	.0266595	.3284949
Stddev	.000044	.0000742	.03227	.0004901	.0004337	.0001369	.0046570
%RSD	234.0315	7.408778	.0950089	17.21067	1.228673	.5135840	1.417672
#1	-.000070	.0009976	33.99008	.0029913	.0348685	.0268108	.3242536
#2	.000012	.0010775	33.92611	.0032501	.0352783	.0265441	.3277526
#3	.000001	.0009292	33.96548	.0023019	.0357354	.0266237	.3334784

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8693811	8.655594	.0108451	-.000378	376.9959	-.000142	.4236942
Stddev	.0011958	.045009	.0002758	.000052	1.6711	.000441	.0010150
%RSD	.1375484	.5199951	2.543025	13.75299	.4432564	311.1223	.2395677
#1	.8700466	8.610603	.0106979	-.000432	378.5663	.000293	.4247426
#2	.8680005	8.700620	.0111632	-.000375	375.2397	-.000130	.4236239
#3	.8700960	8.655558	.0106740	-.000328	377.1816	-.000588	.4227162

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7664532	.0395938	.0000590	-.002144	-.001646	.6668056	.0101990
Stddev	.0301629	.0003293	.0002014	.000405	.000502	.0142247	.0013285
%RSD	3.935385	.8315948	341.6260	18.87296	30.47183	2.133263	13.02595
#1	.7817005	.0399342	.0002115	-.001754	-.001123	.6772921	.0103138
#2	.7859485	.0395701	.0001347	-.002118	-.002123	.6725109	.0114663
#3	.7317106	.0392770	-.000169	-.002562	-.001691	.6506140	.0088168

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1743-04DUP Acquired: 4/14/2025 14:44:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5589736	-.009023	.0995039
Stddev	.0028528	.000257	.0001514
%RSD	.5103644	2.850695	.1521445
#1	.5603408	-.009319	.0993940
#2	.5556946	-.008890	.0996766
#3	.5608856	-.008859	.0994410

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2535.646	62018.64	13039.06	1677.320	3744.912
Stddev	5.238	68.12	40.59	2.155	9.850
%RSD	.2065928	.1098385	.3113106	.1284790	.2630213
#1	2530.692	62079.74	13019.41	1678.683	3739.541
#2	2541.129	62031.00	13085.74	1674.836	3756.280
#3	2535.119	61945.19	13012.04	1678.442	3738.915

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1743-04LX5 Acquired: 4/14/2025 14:48:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000636	-.002183	.0930652	.0008707	.0003870	.0045174	.1001412
Stddev	.001221	.000471	.0010760	.0027154	.0012523	.0018585	.0006729
%RSD	192.0898	21.56982	1.156149	311.8502	323.6261	41.14084	.6719621
#1	.000316	-.002496	.0939020	.0034932	-.000746	.0025920	.1001372
#2	-.000211	-.001642	.0918515	-.001929	.001732	.0046593	.0994703
#3	-.002013	-.002412	.0934421	.001048	.000176	.0063009	.1008161

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000405	.0002328	7.077299	.0015865	.0072167	.0054696	.0775978
Stddev	.0000178	.0000810	.005015	.0002715	.0001025	.0003264	.0040018
%RSD	44.01014	34.80940	.0708645	17.11221	1.420729	5.968265	5.157138
#1	.0000212	.0001459	7.082190	.0012753	.0071368	.0057348	.0766892
#2	.0000439	.0002462	7.072168	.0017094	.0073323	.0051050	.0741283
#3	.0000564	.0003062	7.077538	.0017749	.0071811	.0055689	.0819758

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1786379	1.809542	.0021783	-.000189	74.81085	.0012219	.0839971
Stddev	.0012009	.021118	.0001238	.000511	1.00858	.0017522	.0008373
%RSD	.6722658	1.167025	5.682750	270.6859	1.348168	143.3926	.9968205
#1	.1777689	1.798184	.0022847	-.000674	74.41331	.0018754	.0838113
#2	.1781367	1.833908	.0020425	.000344	74.06162	-.000763	.0849116
#3	.1800083	1.796534	.0022078	-.000236	75.95762	.002553	.0832682

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1191489	.0084093	-.000135	-.000415	-.001016	.1307528	.0054433
Stddev	.0229542	.0003515	.000128	.000688	.000679	.0057251	.0014185
%RSD	19.26511	4.179918	94.82769	165.9945	66.76404	4.378575	26.05898
#1	.0950951	.0086599	-.000254	-.000430	-.001798	.1352546	.0059124
#2	.1215346	.0085605	.000001	.000281	-.000673	.1243094	.0065679
#3	.1408171	.0080075	-.000153	-.001096	-.000579	.1326945	.0038497

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1743-04LX5 Acquired: 4/14/2025 14:48:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1137265	.0009472	.0205899
Stddev	.0058850	.0006093	.0000615
%RSD	5.174733	64.32452	.2985458
#1	.1128847	.0016503	.0205947
#2	.1199871	.0006157	.0205262
#3	.1083077	.0005755	.0206488

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2704.952	67040.19	13580.88	1798.625	4139.630
Stddev	8.859	167.68	134.24	11.534	3.017
%RSD	.3275120	.2501217	.9884840	.6412430	.0728878
#1	2714.974	66852.23	13516.59	1799.211	4142.140
#2	2698.166	67093.93	13490.87	1786.809	4140.467
#3	2701.716	67174.42	13735.18	1809.854	4136.282

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1743-04MS Acquired: 4/14/2025 14:52:59 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6784911	1.597581	1.208720	1.663722	.5421964	1.632810	.6245073
Stddev	.0025800	.005751	.004798	.004148	.0026532	.007864	.0005718
%RSD	.3802618	.3599866	.3969329	.2493173	.4893370	.4815990	.0915532
#1	.6767201	1.604220	1.212971	1.668494	.5429244	1.624932	.6238646
#2	.6814513	1.594128	1.209670	1.660980	.5392552	1.640659	.6249595
#3	.6773019	1.594394	1.203518	1.661693	.5444096	1.632837	.6246978

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1577322	.1729414	32.77956	.3363853	.1994939	.2642100	2.860022
Stddev	.0002431	.0006058	.03776	.0007398	.0001479	.0001877	.014252
%RSD	.1541144	.3503131	.1151967	.2199366	.0741200	.0710508	.4983334
#1	.1575242	.1734077	32.74509	.3357557	.1996598	.2642365	2.858895
#2	.1579994	.1731599	32.77367	.3372001	.1993759	.2643831	2.874804
#3	.1576729	.1722566	32.81992	.3362000	.1994461	.2640105	2.846366

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9024473	9.647821	.4199280	.0620860	356.8955	.2484378	.5566870
Stddev	.0007001	.071640	.0009304	.0004447	2.5057	.0019286	.0019002
%RSD	.0775794	.7425512	.2215504	.7162149	.7020749	.7762941	.3413403
#1	.9026757	9.587295	.4209018	.0623042	358.6866	.2465716	.5582769
#2	.9030048	9.726918	.4198338	.0615744	357.9678	.2504233	.5545825
#3	.9016616	9.629250	.4190483	.0623795	354.0321	.2483184	.5572018

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.737415	.2471468	.2833884	.4660358	.1302330	1.091256	5.235722
Stddev	.030928	.0006433	.0008894	.0019681	.0010249	.002805	.017795
%RSD	.3176236	.2602912	.3138370	.4223158	.7869439	.2570502	.3398860
#1	9.746517	.2464363	.2835710	.4683072	.1305202	1.094450	5.255911
#2	9.762772	.2476896	.2824219	.4648352	.1310837	1.090124	5.228940
#3	9.702958	.2473146	.2841723	.4649650	.1290952	1.089193	5.222314

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1743-04MS Acquired: 4/14/2025 14:52:59 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4815071	.1683752	.2625031
Stddev	.0026153	.0001767	.0000233
%RSD	.5431466	.1049228	.0088939
#1	.4806381	.1681784	.2625056
#2	.4794370	.1685202	.2625250
#3	.4844463	.1684268	.2624786

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2608.639	63417.88	13189.04	1695.204	3857.169
Stddev	3.838	136.38	9.30	4.451	8.367
%RSD	.1471183	.2150519	.0704978	.2625793	.2169213
#1	2604.467	63321.85	13191.84	1691.644	3847.526
#2	2612.020	63357.82	13196.61	1700.195	3862.503
#3	2609.430	63573.99	13178.66	1693.773	3861.479

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1743-04MSD Acquired: 4/14/2025 14:57:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6999154	1.602388	1.221002	1.707219	.5510655	1.634244	.6032259
Stddev	.0064046	.008062	.001202	.007048	.0019052	.001095	.0020526
%RSD	.9150481	.5030972	.0984543	.4128296	.3457272	.0670185	.3402674
#1	.6935292	1.598057	1.220517	1.701569	.5490398	1.633164	.6050156
#2	.7063382	1.611689	1.220117	1.704970	.5528215	1.635354	.6036766
#3	.6998789	1.597417	1.222370	1.715117	.5513352	1.634214	.6009854

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1652836	.1744944	32.35618	.3399983	.2003505	.2687518	2.750142
Stddev	.0008269	.0005065	.06734	.0002967	.0003518	.0005096	.020262
%RSD	.5002921	.2902771	.2081169	.0872519	.1755716	.1896147	.7367689
#1	.1643434	.1745187	32.28006	.3396648	.2004280	.2681846	2.759603
#2	.1658982	.1739761	32.40797	.3400974	.1999665	.2688997	2.726879
#3	.1656090	.1749883	32.38051	.3402327	.2006571	.2691711	2.763942

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8895325	9.683790	.4240027	.0627369	333.4032	.2431084	.5649456
Stddev	.0011815	.056874	.0008634	.0002105	4.6219	.0005568	.0027581
%RSD	.1328260	.5873074	.2036336	.3354679	1.386268	.2290241	.4881997
#1	.8884493	9.624046	.4240529	.0628118	335.9063	.2437511	.5676584
#2	.8893558	9.737276	.4231153	.0624992	336.2338	.2427705	.5621444
#3	.8907924	9.690049	.4248399	.0628997	328.0697	.2428037	.5650338

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.342518	.2570815	.2862987	.4708933	.1289902	1.079365	5.279580
Stddev	.061035	.0018946	.0003715	.0005079	.0004872	.004793	.007688
%RSD	.6533032	.7369493	.1297446	.1078632	.3777148	.4440953	.1456083
#1	9.412865	.2565264	.2863122	.4703639	.1288734	1.084118	5.271712
#2	9.303631	.2591917	.2859206	.4713766	.1295252	1.079445	5.279956
#3	9.311059	.2555266	.2866632	.4709394	.1285720	1.074532	5.287074

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1743-04MSD Acquired: 4/14/2025 14:57:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4902248	.1662569	.2556448
Stddev	.0036723	.0012577	.0003720
%RSD	.7491020	.7564745	.1455243
#1	.4944644	.1675652	.2560734
#2	.4881767	.1661489	.2554562
#3	.4880333	.1650567	.2554049

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2562.816	62284.80	12616.12	1649.500	3821.083
Stddev	4.335	128.92	55.32	5.422	7.407
%RSD	.1691432	.2069833	.4384734	.3286925	.1938403
#1	2566.499	62231.92	12679.82	1646.078	3823.864
#2	2563.910	62431.75	12588.45	1655.751	3826.696
#3	2558.039	62190.72	12580.11	1646.672	3812.688

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1743-04A Acquired: 4/14/2025 15:01:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8145957	1.823109	1.364191	1.990299	.8176444	1.900190	.6491657
Stddev	.0026436	.020412	.003292	.003180	.0030633	.014740	.0019799
%RSD	.3245316	1.119619	.2413459	.1597948	.3746468	.7757296	.3049945
#1	.8173576	1.806107	1.365230	1.989799	.8171960	1.905833	.6484737
#2	.8143407	1.817473	1.360505	1.987398	.8209071	1.911275	.6513988
#3	.8120889	1.845747	1.366839	1.993700	.8148300	1.883462	.6476248

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1822858	.2024685	33.15771	.3952465	.2275994	.3067308	3.297763
Stddev	.0011952	.0003494	.06473	.0011331	.0011685	.0008565	.014438
%RSD	.6557033	.1725601	.1952175	.2866832	.5134060	.2792527	.4378075
#1	.1833811	.2023308	33.21388	.3959062	.2269866	.3072601	3.281284
#2	.1810109	.2022090	33.17232	.3939381	.2268647	.3057426	3.303809
#3	.1824654	.2028658	33.08692	.3958952	.2289468	.3071897	3.308194

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9570906	10.06897	.4915438	.0727147	361.0422	.2838844	.5997186
Stddev	.0042017	.04163	.0014838	.0005241	4.2822	.0028736	.0035822
%RSD	.4390079	.4134393	.3018725	.7208169	1.186057	1.012238	.5973091
#1	.9593680	10.11673	.4913450	.0728759	365.4837	.2805663	.6037668
#2	.9596619	10.04034	.4901694	.0721290	360.7032	.2855376	.5969587
#3	.9522419	10.04984	.4931171	.0731394	356.9396	.2855494	.5984304

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.31684	.2810158	.4232115	.6990068	.1944385	1.370756	6.131620
Stddev	.06656	.0021324	.0011488	.0009821	.0008455	.007142	.027362
%RSD	.5881424	.7588271	.2714377	.1405046	.4348315	.5209899	.4462499
#1	11.26336	.2825699	.4225426	.6980730	.1936627	1.363616	6.144116
#2	11.39138	.2785847	.4245379	.6989163	.1943133	1.377899	6.100241
#3	11.29579	.2818927	.4225539	.7000310	.1953397	1.370754	6.150504

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1743-04A Acquired: 4/14/2025 15:01:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5313741	.2008440	.2917745
Stddev	.0023823	.0010257	.0008211
%RSD	.4483210	.5106904	.2814163
#1	.5332583	.1996763	.2914410
#2	.5286964	.2012563	.2927099
#3	.5321677	.2015994	.2911726

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2556.806	62177.04	13192.01	1644.691	3794.430
Stddev	1.488	347.94	74.51	9.966	7.750
%RSD	.0582140	.5595962	.5647845	.6059646	.2042389
#1	2555.186	61833.26	13107.28	1636.365	3792.530
#2	2557.120	62168.88	13221.46	1641.975	3802.953
#3	2558.113	62528.99	13247.29	1655.734	3787.808

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1774-02 Acquired: 4/14/2025 15:05:34 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0184295	-.006315	.0444089	.0073609	.0007832	19.99912
Stddev	.0043531	.001532	.0015882	.0045787	.0022323	.09954
%RSD	23.62051	24.25479	3.576368	62.20330	285.0389	.4976998
#1	.0214032	-.006146	.0436147	.0022765	-.000473	19.91836
#2	.0204522	-.004875	.0462375	.0111586	.003361	19.96867
#3	.0134330	-.007924	.0433743	.0086475	-.000538	20.11032

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1894156	.0028824	-.000562	22.28257	.0748547	.0174161
Stddev	.0004871	.0000481	.000050	.05236	.0003532	.0000399
%RSD	.2571409	1.667919	8.890311	.2349852	.4719100	.2292783
#1	.1889735	.0028546	-.000558	22.34236	.0745211	.0174007
#2	.1899377	.0028546	-.000514	22.26043	.0752248	.0173861
#3	.1893356	.0029379	-.000613	22.24492	.0748182	.0174614

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0854809	19.70543	.4740484	7.250707	.0362855	-.001051
Stddev	.0011298	.06557	.0003926	.022207	.0002590	.000264
%RSD	1.321666	.3327467	.0828204	.3062788	.7137849	25.17312
#1	.0866735	19.65909	.4745015	7.240632	.0365680	-.000914
#2	.0853425	19.78045	.4738321	7.235323	.0360593	-.001356
#3	.0844267	19.67675	.4738114	7.276166	.0362292	-.000882

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	122.8683	.0449227	.0911566	156.9577	.0453548	.0410395
Stddev	.6534	.0005778	.0009726	.8393	.0004863	.0001992
%RSD	.5318169	1.286260	1.066963	.5347414	1.072157	.4853149
#1	122.7100	.0445842	.0908934	156.8135	.0457495	.0409237
#2	123.5863	.0445940	.0922337	157.8598	.0455033	.0412695
#3	122.3085	.0455899	.0903426	156.1999	.0448116	.0409253

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1774-02 Acquired: 4/14/2025 15:05:34 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000656	.1070685	F 38.05231	1.991299	20.54173	.0233489
Stddev	.0005407	.0005567	.18342	.009927	.06371	.0007549
%RSD	824.4703	.5199902	.4820276	.4985351	.3101329	3.232933
#1	.0003331	.1064659	37.85211	1.980752	20.58872	.0226020
#2	-.000557	.1075638	38.21228	1.992684	20.46922	.0241115
#3	.000420	.1071757	38.09254	2.000461	20.56725	.0233330

Elem	Sr4077
Units	ppm
Avg	.3299288
Stddev	.0006270
%RSD	.1900262
#1	.3306104
#2	.3293768
#3	.3297990

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2730.949	66965.70	14835.69	1795.421	3883.112
Stddev	6.384	197.90	42.67	8.405	3.706
%RSD	.2337622	.2955310	.2876075	.4681173	.0954330
#1	2725.939	67028.45	14818.63	1801.010	3881.782
#2	2728.772	66744.03	14884.24	1785.755	3880.255
#3	2738.137	67124.63	14804.18	1799.497	3887.300

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1774-03 Acquired: 4/14/2025 15:09:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0186187	-.007818	.0731554	-.003786	-.002836	56.93776
Stddev	.0029569	.000967	.0007481	.002444	.002223	.00855
%RSD	15.88121	12.36696	1.022588	64.55549	78.37508	.0150133
#1	.0220169	-.008925	.0730762	-.002041	-.005315	56.93151
#2	.0166323	-.007392	.0724501	-.006579	-.001020	56.94750
#3	.0172069	-.007138	.0739399	-.002738	-.002174	56.93426

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2430301	.0033470	-.000346	21.00815	.1019319	.0288000
Stddev	.0002531	.0000379	.000058	.05223	.0001218	.0001400
%RSD	.1041504	1.132148	16.70096	.2486338	.1194975	.4859889
#1	.2431598	.0033356	-.000369	21.06842	.1020714	.0289591
#2	.2431920	.0033892	-.000389	20.97991	.1018466	.0286957
#3	.2427384	.0033161	-.000280	20.97611	.1018777	.0287452

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0710989	40.39458	.9177732	12.13693	.0491336	-.002156
Stddev	.0003305	.26057	.0036234	.06462	.0001926	.000255
%RSD	.4648917	.6450717	.3948005	.5324359	.3920983	11.85155
#1	.0707692	40.69137	.9219405	12.21132	.0490047	-.001928
#2	.0714303	40.28903	.9153675	12.10490	.0493550	-.002432
#3	.0710972	40.20333	.9160114	12.09460	.0490410	-.002106

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	66.12134	.1099330	.1239617	5.776767	.0228056	.0119381
Stddev	.37252	.0007181	.0007118	.025693	.0009205	.0003569
%RSD	.5633854	.6532590	.5742284	.4447592	4.036295	2.989229
#1	66.53201	.1094879	.1233203	5.806432	.0236005	.0115398
#2	65.80518	.1107615	.1238373	5.762248	.0217971	.0120458
#3	66.02683	.1095497	.1247276	5.761621	.0230192	.0122287

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1774-03 Acquired: 4/14/2025 15:09:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001238	.1588008	F 81.14736	.6506696	12.21439	.0316561
Stddev	.0008438	.0007973	.25750	.0021135	.00031	.0007080
%RSD	681.8205	.5020733	.3173219	.3248216	.0025714	2.236549
#1	-.000100	.1592411	81.41414	.6487568	12.21466	.0320243
#2	.001057	.1578805	80.90027	.6503134	12.21448	.0321042
#3	-.000586	.1592809	81.12768	.6529386	12.21405	.0308399

Elem	Sr4077
Units	ppm
Avg	.3518406
Stddev	.0014324
%RSD	.4071193
#1	.3534941
#2	.3509801
#3	.3510474

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2879.535	71076.24	15065.36	1918.263	3994.760
Stddev	4.214	146.44	20.83	6.304	7.305
%RSD	.1463480	.2060352	.1382520	.3286516	.1828536
#1	2882.364	70913.96	15058.34	1911.793	4000.553
#2	2874.692	71116.24	15048.95	1918.608	3986.554
#3	2881.549	71198.53	15088.79	1924.388	3997.172

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1774-04 Acquired: 4/14/2025 15:14:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0149154	-.003699	.0598089	.0008355	-.002578	33.26656
Stddev	.0004746	.000624	.0003252	.0044930	.001994	.03508
%RSD	3.182039	16.85739	.5437641	537.7524	77.32430	.1054478
#1	.0144373	-.004316	.0599436	.0016276	-.002336	33.27964
#2	.0149225	-.003069	.0600451	-.004001	-.004682	33.29323
#3	.0153864	-.003713	.0594380	.004880	-.000717	33.22682

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2045875	.0032950	-.000521	25.72016	.0771598	.0188807
Stddev	.0010323	.0000211	.000085	.04621	.0003160	.0001690
%RSD	.5045548	.6393517	16.35358	.1796744	.4095830	.8950375
#1	.2057310	.0032707	-.000568	25.77091	.0771885	.0187206
#2	.2037245	.0033075	-.000572	25.68051	.0768304	.0188640
#3	.2043069	.0033069	-.000422	25.70907	.0774606	.0190574

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0611448	28.23116	1.035410	9.097831	.0455025	-.002048
Stddev	.0001705	.06293	.001928	.015035	.0004195	.000082
%RSD	.2787864	.2229105	.1862174	.1652636	.9220189	3.999891
#1	.0611444	28.30280	1.036073	9.115061	.0455045	-.001965
#2	.0613155	28.18483	1.033238	9.087374	.0450820	-.002129
#3	.0609746	28.20584	1.036919	9.091057	.0459211	-.002051

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	50.07892	.0389745	.0985781	4.567895	.0129848	.0243315
Stddev	.23652	.0013389	.0007710	.016305	.0005472	.0000803
%RSD	.4722935	3.435341	.7821050	.3569381	4.214434	.3300268
#1	50.34949	.0402247	.0979399	4.569080	.0135762	.0242661
#2	49.91146	.0391372	.0983598	4.583574	.0124963	.0244211
#3	49.97582	.0375617	.0994348	4.551030	.0128818	.0243072

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1774-04 Acquired: 4/14/2025 15:14:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001735	.1154226	F 53.84866	.4492844	13.20580	.0263209
Stddev	.000263	.0022613	.09818	.0029749	.05353	.0001604
%RSD	15.15394	1.959177	.1823270	.6621403	.4053583	.6095375
#1	-.001824	.1178557	53.96062	.4526040	13.24936	.0264676
#2	-.001440	.1150269	53.77729	.4468597	13.14604	.0263455
#3	-.001943	.1133853	53.80806	.4483893	13.22199	.0261496

Elem	Sr4077
Units	ppm
Avg	.3578802
Stddev	.0008679
%RSD	.2425187
#1	.3588796
#2	.3574457
#3	.3573153

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2877.342	69214.09	14107.59	1882.038	4185.102
Stddev	1.795	69.14	6.21	5.435	3.404
%RSD	.0623876	.0998901	.0440157	.2888075	.0813250
#1	2875.271	69141.26	14113.30	1886.110	4182.041
#2	2878.304	69222.18	14100.98	1884.138	4188.767
#3	2878.451	69278.83	14108.49	1875.866	4184.498

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1774-02DUP Acquired: 4/14/2025 15:18:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0167756	-.005641	.0435002	.0002718	-.000098	23.41599
Stddev	.0028140	.000451	.0007502	.0037458	.001892	.12583
%RSD	16.77405	7.991801	1.724542	1378.115	1935.043	.5373855
#1	.0159690	-.006161	.0426487	.0013897	-.002179	23.36494
#2	.0144531	-.005405	.0440637	.0033314	.001518	23.32369
#3	.0199048	-.005357	.0437881	-.003906	.000367	23.55932

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1890559	.0029673	-.000573	21.25367	.0713653	.0169879
Stddev	.0003583	.0000562	.000084	.08335	.0003396	.0003877
%RSD	.1895070	1.893826	14.70455	.3921641	.4758207	2.282175
#1	.1887237	.0029597	-.000551	21.22201	.0717212	.0173500
#2	.1894356	.0029153	-.000667	21.19079	.0710448	.0170350
#3	.1890085	.0030270	-.000502	21.34821	.0713298	.0165789

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0803910	19.54951	.4658029	7.483393	.0328686	-.001126
Stddev	.0003508	.05022	.0009588	.081797	.0002497	.000066
%RSD	.4363999	.2568802	.2058392	1.093044	.7597699	5.819370
#1	.0799919	19.59090	.4665181	7.423592	.0328508	-.001190
#2	.0806508	19.56398	.4647134	7.449980	.0326282	-.001130
#3	.0805303	19.49364	.4661771	7.576607	.0331267	-.001059

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	114.6957	.0444776	.0819570	147.1840	.0439477	.0405016
Stddev	1.3639	.0021918	.0002702	1.1688	.0005248	.0003184
%RSD	1.189176	4.927826	.3297174	.7940963	1.194149	.7862157
#1	115.8407	.0419621	.0818227	148.1001	.0445528	.0407731
#2	115.0596	.0454941	.0822680	147.5843	.0436732	.0405806
#3	113.1867	.0459766	.0817801	145.8677	.0436172	.0401511

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1774-02DUP Acquired: 4/14/2025 15:18:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001144	.1085924	F 41.81251	1.974102	20.20855	.0249533
Stddev	.000839	.0010587	.09938	.007687	.02955	.0005359
%RSD	73.33031	.9749416	.2376899	.3893867	.1462312	2.147779
#1	-.001540	.1076939	41.84235	1.965432	20.24241	.0248716
#2	-.000180	.1083237	41.89355	1.976792	20.19529	.0255255
#3	-.001712	.1097595	41.70162	1.980082	20.18795	.0244630

Elem	Sr4077
Units	ppm
Avg	.3228250
Stddev	.0015790
%RSD	.4891064
#1	.3246298
#2	.3221463
#3	.3216988

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2744.224	68528.97	14531.94	1829.538	3897.668
Stddev	4.681	26.41	103.20	2.637	2.017
%RSD	.1705767	.0385350	.7101316	.1441324	.0517495
#1	2748.679	68506.69	14582.78	1832.474	3895.358
#2	2739.346	68558.14	14599.86	1827.372	3899.081
#3	2744.648	68522.10	14413.19	1828.768	3898.564

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCV02 Acquired: 4/14/2025 15:22:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.928553	4.981892	4.926857	4.968631	4.953050	9.731206	9.584896
Stddev	.011871	.018403	.005947	.010112	.010557	.015788	.053899
%RSD	.2408570	.3694022	.1207064	.2035262	.2131333	.1622377	.5623317
#1	4.917593	4.980110	4.927023	4.964800	4.942906	9.728256	9.523498
#2	4.926903	5.001122	4.920829	4.980100	4.952271	9.717101	9.606778
#3	4.941162	4.964445	4.932720	4.960995	4.963976	9.748261	9.624413

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2455040	2.460829	24.06740	.9951296	2.460359	1.246820	4.878266
Stddev	.0012433	.005496	.07972	.0044887	.003134	.001688	.014927
%RSD	.5064099	.2233571	.3312158	.4510620	.1273661	.1353631	.3059984
#1	.2459934	2.458081	24.08572	.9899475	2.459136	1.246347	4.862278
#2	.2440906	2.457249	23.98013	.9976341	2.458022	1.245420	4.891838
#3	.2464282	2.467158	24.13637	.9978071	2.463920	1.248694	4.880683

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.405642	23.98460	2.461324	1.231538	24.44105	2.420330	2.480259
Stddev	.012511	.11502	.003607	.000443	.04943	.003017	.006662
%RSD	.5200667	.4795470	.1465597	.0359675	.2022545	.1246708	.2686045
#1	2.412028	23.92593	2.460427	1.231033	24.49812	2.423390	2.483483
#2	2.391227	23.91075	2.458251	1.231860	24.41163	2.417357	2.472598
#3	2.413672	24.11712	2.465296	1.231722	24.41341	2.420242	2.484696

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.34892	4.876882	4.992122	4.933397	4.819645	4.985446	4.951902
Stddev	.08382	.032800	.007277	.009489	.016153	.016215	.013558
%RSD	.3442469	.6725634	.1457666	.1923419	.3351561	.3252551	.2737844
#1	24.28047	4.887660	4.986020	4.929459	4.829532	4.974913	4.963972
#2	24.44241	4.840049	4.990171	4.926512	4.801004	5.004119	4.937233
#3	24.32390	4.902937	5.000176	4.944222	4.828399	4.977306	4.954500

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCV02 Acquired: 4/14/2025 15:22:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.893043	4.848806	4.924039
Stddev	.010521	.012967	.055866
%RSD	.2150247	.2674271	1.134557
#1	4.887751	4.862533	4.905042
#2	4.886217	4.836763	4.880149
#3	4.905159	4.847124	4.986926

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2669.206	64670.17	12866.23	1720.070	4036.528
Stddev	5.331	170.41	37.63	3.429	10.440
%RSD	.1997036	.2635119	.2925054	.1993336	.2586353
#1	2668.939	64750.04	12834.33	1716.783	4034.388
#2	2674.665	64474.49	12907.74	1719.801	4047.872
#3	2664.014	64785.98	12856.63	1723.625	4027.324

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCB02 Acquired: 4/14/2025 15:26:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0018043	-.000043	.0011588	-.003569	.0009209	-.000026	.0004340
Stddev	.0012629	.000945	.0006920	.002652	.0028955	.004675	.0004635
%RSD	69.99496	2200.332	59.71886	74.32335	314.4211	18113.28	106.8051
#1	.0009965	-.000052	.0019521	-.001035	-.001539	-.004377	.0008441
#2	.0032597	-.000983	.0006792	-.006325	.004112	.004917	.0005267
#3	.0011568	.000906	.0008451	-.003346	.000190	-.000618	-.000069

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000195	.0001423	-.005658	.0000663	.0002970	.0001127	.0028516
Stddev	.0000391	.0000843	.005447	.0003201	.0000311	.0002568	.0037248
%RSD	200.5815	59.25697	96.26720	482.7045	10.48147	227.9163	130.6226
#1	.0000119	.0000533	-.011671	.0000325	.0003311	.0002280	-.001411
#2	.0000618	.0001528	-.001056	.0004020	.0002899	.0002916	.004487
#3	-.000015	.0002210	-.004246	-.000236	.0002701	-.000182	.005478

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004486	.0049079	.0001438	-.000135	.1003759	-.000532	-.000109
Stddev	.0001958	.0041281	.0004659	.000507	.0215459	.001166	.000262
%RSD	43.63548	84.11066	323.9354	374.6823	21.46522	219.3690	239.9144
#1	.0003383	.0095505	.0006599	.000074	.0850303	.000804	-.000390
#2	.0006746	.0035224	.0000173	.000234	.0910897	-.001049	.000129
#3	.0003329	.0016508	-.000246	-.000713	.1250078	-.001350	-.000066

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.025240	.0048223	.0005627	-.000116	.0007010	.0158721	.0015200
Stddev	.006418	.0001785	.0002844	.000451	.0002405	.0051030	.0024191
%RSD	25.42948	3.700782	50.54551	389.4361	34.30439	32.15057	159.1454
#1	-.021581	.0049927	.0008707	-.000472	.0009547	.0213356	.0015492
#2	-.021488	.0048374	.0005073	-.000267	.0006717	.0150515	.0039244
#3	-.032651	.0046367	.0003100	.000392	.0004765	.0112292	-.000913

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCB02 Acquired: 4/14/2025 15:26:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000375	.0032981	.0003053
Stddev	.002912	.0012610	.0000679
%RSD	776.7138	38.23412	22.22264
#1	-.003130	.0047283	.0002313
#2	.002673	.0023466	.0003645
#3	-.000668	.0028194	.0003203

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2770.536	66818.32	13629.66	1806.045	4445.340
Stddev	13.344	267.69	14.02	11.499	15.892
%RSD	.4816419	.4006301	.1028498	.6366957	.3575028
#1	2756.575	66509.23	13625.69	1793.513	4427.879
#2	2771.868	66971.18	13645.23	1816.111	4449.183
#3	2783.164	66974.57	13618.05	1808.510	4458.958

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1774-02LX5 Acquired: 4/14/2025 15:31:00 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0047555	-.000187	.0095340	-.001028	-.000874	5.213312	.0377439
Stddev	.0024811	.000586	.0010741	.002015	.001144	.016416	.0005277
%RSD	52.17291	313.2844	11.26559	195.9843	130.7785	.3148820	1.398167
#1	.0055212	-.000847	.0107332	.000725	-.001641	5.209243	.0376972
#2	.0067634	.000016	.0092085	-.003229	.000440	5.231380	.0382934
#3	.0019818	.000270	.0086604	-.000580	-.001423	5.199314	.0372411

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006892	-.000178	4.455111	.0150392	.0033530	.0176790	3.904740
Stddev	.0000874	.000044	.020811	.0002228	.0001982	.0002027	.014241
%RSD	12.68497	24.63572	.4671288	1.481616	5.912732	1.146389	.3647060
#1	.0005886	-.000131	4.433774	.0149725	.0035658	.0178898	3.920661
#2	.0007320	-.000184	4.475353	.0152877	.0033197	.0174856	3.893215
#3	.0007470	-.000218	4.456205	.0148573	.0031735	.0176615	3.900345

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0986670	1.629021	.0062988	-.000400	20.89682	.0096419	.0170274
Stddev	.0005620	.000471	.0002561	.000526	.03878	.0014595	.0000837
%RSD	.5696020	.0289363	4.066095	131.5428	.1855661	15.13739	.4917495
#1	.0980422	1.629037	.0060031	-.000658	20.91975	.0107802	.0170530
#2	.0991313	1.628542	.0064504	-.000748	20.91865	.0079964	.0169339
#3	.0988274	1.629484	.0064428	.000205	20.85204	.0101491	.0170954

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.25925	.0120409	.0082100	-.000386	.0228026	8.516625	.3937483
Stddev	.04831	.0003122	.0001618	.001108	.0004572	.032273	.0060165
%RSD	.1772235	2.592404	1.970141	286.9609	2.005248	.3789449	1.528017
#1	27.31430	.0123594	.0080281	-.001447	.0222922	8.552137	.4002658
#2	27.23958	.0117355	.0082646	.000765	.0229407	8.489084	.3884062
#3	27.22389	.0120279	.0083374	-.000477	.0231748	8.508653	.3925729

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1774-02LX5 Acquired: 4/14/2025 15:31:00 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.050875	.0063229	.0657512
Stddev	.008654	.0005760	.0002795
%RSD	.2136440	9.109341	.4250273
#1	4.058030	.0064214	.0654425
#2	4.041256	.0068433	.0659870
#3	4.053339	.0057040	.0658240

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2752.500	67879.32	13288.25	1837.400	4206.906
Stddev	3.617	123.43	72.87	10.465	1.752
%RSD	.1314095	.1818419	.5483659	.5695452	.0416483
#1	2754.612	67760.60	13369.66	1833.147	4205.628
#2	2748.324	68006.98	13229.14	1849.321	4206.188
#3	2754.566	67870.40	13265.94	1829.731	4208.903

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1774-02MS Acquired: 4/14/2025 15:35:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7564038	1.870041	.9579840	1.799978	.7597251	19.01753
Stddev	.0016454	.002146	.0005286	.003092	.0010089	.06955
%RSD	.2175286	.1147814	.0551776	.1717758	.1327950	.3657362
#1	.7553838	1.871903	.9585895	1.799049	.7602848	19.07281
#2	.7555255	1.867693	.9576147	1.803428	.7603300	18.93944
#3	.7583019	1.870528	.9577476	1.797457	.7585604	19.04036

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2738195	.1882277	.1943016	11.48619	.4104493	.1970493
Stddev	.0011783	.0010486	.0005948	.01275	.0013105	.0002940
%RSD	.4303219	.5570868	.3061215	.1110185	.3192876	.1491968
#1	.2748998	.1870453	.1949825	11.47869	.4091474	.1969381
#2	.2725630	.1885928	.1938830	11.47897	.4117683	.1968272
#3	.2739956	.1890449	.1940394	11.50091	.4104323	.1973827

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3169885	12.26244	.4137841	5.639522	.4878435	.0674967
Stddev	.0006304	.05462	.0007445	.029318	.0005294	.0001061
%RSD	.1988826	.4454642	.1799254	.5198617	.1085228	.1572594
#1	.3165328	12.32078	.4145851	5.607155	.4880130	.0673742
#2	.3177080	12.25403	.4131132	5.647113	.4872501	.0675613
#3	.3167247	12.21251	.4136541	5.664298	.4882674	.0675546

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	54.33205	.2965882	.2443916	76.24330	.2795541	.4123103
Stddev	.39986	.0015348	.0009857	.38039	.0017800	.0004914
%RSD	.7359558	.5175027	.4033100	.4989195	.6367333	.1191919
#1	54.78865	.2979519	.2432540	76.66729	.2779987	.4119046
#2	54.04437	.2968868	.2449906	75.93194	.2791683	.4128568
#3	54.16313	.2949260	.2449302	76.13068	.2814954	.4121694

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1774-02MS Acquired: 4/14/2025 15:35:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6800320	.4915290	F 27.39237	6.549181	9.531737	.2080453
Stddev	.0036782	.0032850	.08012	.012328	.025012	.0010039
%RSD	.5408900	.6683331	.2924891	.1882322	.2624073	.4825493
#1	.6842045	.4921206	27.48105	6.551444	9.554754	.2084359
#2	.6772586	.4944780	27.32520	6.535878	9.505120	.2069048
#3	.6786329	.4879883	27.37086	6.560220	9.535336	.2087953

Elem	Sr4077
Units	ppm
Avg	.3420331
Stddev	.0013554
%RSD	.3962693
#1	.3431598
#2	.3405291
#3	.3424105

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2821.127	67792.32	13407.92	1848.661	4169.026
Stddev	3.871	88.75	51.97	6.490	4.241
%RSD	.1372013	.1309138	.3875729	.3510441	.1017180
#1	2823.071	67817.19	13457.84	1855.589	4171.321
#2	2816.669	67865.99	13411.78	1847.671	4171.625
#3	2823.640	67693.79	13354.13	1842.723	4164.133

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1774-02MSD Acquired: 4/14/2025 15:39:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7498257	1.856408	.9460005	1.781537	.7540564	18.72369
Stddev	.0049029	.026467	.0040614	.001569	.0007735	.01234
%RSD	.6538787	1.425720	.4293252	.0880890	.1025825	.0659180
#1	.7494100	1.876630	.9445788	1.780780	.7532058	18.71155
#2	.7451438	1.866142	.9428410	1.780489	.7542460	18.73622
#3	.7549232	1.826453	.9505816	1.783341	.7547176	18.72330

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2802622	.1901250	.1921074	12.68281	.4071937	.1962905
Stddev	.0005413	.0004044	.0005008	.03215	.0007417	.0003894
%RSD	.1931481	.2127307	.2606633	.2535099	.1821446	.1983991
#1	.2796965	.1905722	.1919451	12.67667	.4071908	.1964115
#2	.2803148	.1897847	.1926692	12.65417	.4064535	.1966050
#3	.2807753	.1900182	.1917079	12.71759	.4079368	.1958549

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3165317	12.96778	.4396722	6.006802	.4829221	.0671651
Stddev	.0006404	.03012	.0016553	.058088	.0009277	.0002867
%RSD	.2023181	.2322693	.3764902	.9670363	.1920940	.4268258
#1	.3169552	12.93536	.4379715	5.973638	.4836188	.0669872
#2	.3168448	12.97309	.4397671	5.972893	.4832784	.0674958
#3	.3157949	12.99489	.4412780	6.073875	.4818691	.0670123

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	59.60721	.2947597	.2392745	82.78228	.2834663	.4116979
Stddev	.16774	.0021082	.0005052	.25111	.0009363	.0007679
%RSD	.2814130	.7152247	.2111241	.3033422	.3302942	.1865105
#1	59.46935	.2924273	.2395628	82.60455	.2834986	.4124619
#2	59.79397	.2965296	.2395696	83.06956	.2843861	.4117056
#3	59.55833	.2953222	.2386912	82.67274	.2825144	.4109262

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1774-02MSD Acquired: 4/14/2025 15:39:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6693240	.4111063	F 26.99159	6.619986	10.56325	.2070533
Stddev	.0001079	.0025877	.02630	.019862	.02978	.0004587
%RSD	.0161227	.6294500	.0974481	.3000245	.2819313	.2215542
#1	.6694430	.4092806	26.96122	6.630081	10.58872	.2074385
#2	.6692324	.4099707	27.00665	6.632773	10.57052	.2071755
#3	.6692966	.4140677	27.00691	6.597105	10.53051	.2065458

Elem	Sr4077
Units	ppm
Avg	.3598636
Stddev	.0008011
%RSD	.2226079
#1	.3589612
#2	.3604910
#3	.3601385

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2814.105	67824.07	13114.99	1856.185	4147.577
Stddev	1.952	114.01	46.09	4.603	6.390
%RSD	.0693768	.1680928	.3514625	.2479896	.1540713
#1	2816.079	67832.15	13124.89	1857.587	4151.183
#2	2812.174	67933.83	13155.33	1859.925	4140.199
#3	2814.063	67706.24	13064.74	1851.044	4151.349

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1774-02A Acquired: 4/14/2025 15:43:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7362663	1.787098	.9423693	1.716720	.7365552	11.97889
Stddev	.0015219	.002608	.0008428	.012227	.0021422	.02668
%RSD	.2066990	.1459146	.0894374	.7122499	.2908462	.2227293
#1	.7378777	1.784188	.9414004	1.719334	.7357952	11.99194
#2	.7348534	1.789222	.9429333	1.727430	.7389738	11.94819
#3	.7360678	1.787884	.9427742	1.703398	.7348965	11.99653

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3267536	.1847610	.1921135	20.65111	.4167528	.2028990
Stddev	.0009145	.0005987	.0002772	.05662	.0007590	.0004919
%RSD	.2798809	.3240490	.1443038	.2741960	.1821274	.2424323
#1	.3268941	.1847820	.1917959	20.62722	.4175774	.2023311
#2	.3257769	.1841521	.1922374	20.61034	.4165978	.2031938
#3	.3275897	.1853489	.1923072	20.71576	.4160833	.2031721

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3365422	16.62962	.6124685	7.726978	.4902852	.0638915
Stddev	.0005661	.05409	.0034942	.063132	.0007159	.0004845
%RSD	.1682023	.3252689	.5705169	.8170347	.1460180	.7583271
#1	.3361968	16.69205	.6115280	7.701463	.4896046	.0643823
#2	.3371955	16.59670	.6095407	7.680597	.4902192	.0638786
#3	.3362344	16.60011	.6163367	7.798875	.4910319	.0634136

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	100.5582	.2986283	.2562427	134.6536	.2823900	.4249156
Stddev	.4620	.0022276	.0013048	.4298	.0015709	.0002604
%RSD	.4594188	.7459391	.5091879	.3191778	.5563018	.0612878
#1	101.0634	.3007848	.2556198	135.0817	.2814169	.4246986
#2	100.4540	.2963358	.2553661	134.6570	.2815508	.4248439
#3	100.1572	.2987644	.2577422	134.2221	.2842023	.4252044

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1774-02A Acquired: 4/14/2025 15:43:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6673356	.2745184	F 19.67428	7.335330	18.14004	.2072876
Stddev	.0028413	.0012696	.04281	.011878	.03546	.0012564
%RSD	.4257700	.4624743	.2175966	.1619247	.1954955	.6060999
#1	.6642363	.2742251	19.72090	7.326325	18.14220	.2079230
#2	.6679530	.2734211	19.66520	7.330875	18.10355	.2058404
#3	.6698174	.2759089	19.63674	7.348792	18.17438	.2080994

Elem	Sr4077
Units	ppm
Avg	.4728624
Stddev	.0010182
%RSD	.2153183
#1	.4736860
#2	.4717241
#3	.4731772

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2781.040	67309.45	13022.72	1822.705	3993.401
Stddev	5.573	106.24	67.70	9.990	5.130
%RSD	.2003950	.1578354	.5198740	.5481029	.1284695
#1	2774.693	67280.89	13054.80	1822.814	3990.896
#2	2783.294	67427.05	13068.42	1832.640	3999.303
#3	2785.132	67220.41	12944.94	1812.661	3990.005

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1705-04 Acquired: 4/14/2025 15:47:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005179	-.010665	.0014406	-.000748	.0077934	.0230405	.4758964
Stddev	.000599	.002103	.0006540	.003453	.0022985	.0063044	.0023451
%RSD	11.57486	19.71502	45.39913	461.4370	29.49311	27.36219	.4927816
#1	-.005780	-.011020	.0006864	-.001728	.0104475	.0299647	.4785429
#2	-.005176	-.008407	.0017834	-.003606	.0064814	.0215241	.4750700
#3	-.004581	-.012567	.0018519	.003089	.0064514	.0176325	.4740764

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000190	-.000181	335.6952	.0104724	.0007346	.0017599	.1953139
Stddev	.000045	.000114	1.5256	.0004392	.0001470	.0001411	.0101373
%RSD	23.66149	62.82748	.4544643	4.194131	20.01000	8.020188	5.190235
#1	-.000163	-.000309	336.8474	.0101282	.0005696	.0016002	.2065916
#2	-.000165	-.000091	336.2731	.0109671	.0007828	.0018682	.1869597
#3	-.000242	-.000144	333.9650	.0103219	.0008515	.0018111	.1923902

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0024601	.0078785	-.000240	-.000538	479.6802	.0015305	.0424883
Stddev	.0002251	.0132074	.000137	.000187	5.0301	.0009066	.0009138
%RSD	9.148510	167.6389	57.09152	34.70285	1.048637	59.23519	2.150650
#1	.0023698	.0176864	-.000254	-.000335	477.6562	.0024552	.0415480
#2	.0022942	.0130882	-.000097	-.000577	485.4070	.0006431	.0433731
#3	.0027163	-.007139	-.000369	-.000702	475.9773	.0014933	.0425438

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.81906	.0097571	.0023326	-.004762	-.007378	.1191411	.0089386
Stddev	.10266	.0004011	.0002679	.001156	.000924	.0052006	.0026612
%RSD	.4498724	4.110596	11.48651	24.26765	12.52740	4.365097	29.77248
#1	22.89330	.0092993	.0022309	-.006032	-.006457	.1159978	.0102826
#2	22.86197	.0099254	.0021304	-.003773	-.007372	.1162814	.0106598
#3	22.70191	.0100465	.0026365	-.004481	-.008305	.1251440	.0058734

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1705-04 Acquired: 4/14/2025 15:47:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.296773	-.035670	5.872508
Stddev	.003989	.000575	.031213
%RSD	.3075950	1.612927	.5315137
#1	1.295749	-.035797	5.878620
#2	1.301174	-.036172	5.838691
#3	1.293396	-.035042	5.900213

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2397.667	60045.48	12823.57	1581.406	3508.030
Stddev	6.634	103.16	18.31	1.213	6.074
%RSD	.2766674	.1718097	.1428153	.0766866	.1731528
#1	2405.208	60069.71	12802.79	1581.850	3512.389
#2	2392.733	59932.35	12837.35	1580.034	3501.092
#3	2395.061	60134.37	12830.57	1582.335	3510.610

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1705-05 Acquired: 4/14/2025 15:52:03 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002507	-.011168	.0021382	-.008048	.0073979	-.030309	.6815630
Stddev	.000056	.002677	.0009058	.004798	.0006273	.004248	.0030429
%RSD	2.252400	23.97054	42.36278	59.62083	8.479169	14.01418	.4464586
#1	-.002457	-.014099	.0027691	-.011180	.0067986	-.029362	.6785637
#2	-.002568	-.008852	.0011003	-.002524	.0073452	-.034951	.6814776
#3	-.002496	-.010553	.0025452	-.010440	.0080498	-.026616	.6846477

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000219	-.000124	334.6351	.0138730	.0022844	.0011657	.0699532
Stddev	.000085	.000119	1.7338	.0001265	.0002824	.0001163	.0018732
%RSD	38.86848	95.68771	.5181114	.9116290	12.36382	9.977151	2.677741
#1	-.000121	-.000225	332.8107	.0138439	.0020160	.0010619	.0697310
#2	-.000274	-.000155	336.2612	.0137637	.0025791	.0012914	.0682010
#3	-.000262	.000007	334.8334	.0140115	.0022580	.0011437	.0719275

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001148	.0105453	-.000569	-.000313	492.0308	.0009561	.0508566
Stddev	.000424	.0076174	.000143	.000269	7.7289	.0007498	.0007426
%RSD	36.91658	72.23498	25.14649	86.01503	1.570818	78.42525	1.460249
#1	-.001505	.0183408	-.000536	-.000597	488.4505	.0018164	.0502247
#2	-.000680	.0101757	-.000445	-.000282	486.7412	.0006102	.0516746
#3	-.001261	.0031195	-.000725	-.000061	500.9006	.0004416	.0506704

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	53.60315	.0122260	.0022894	-.003915	-.007327	.1234397	.0095765
Stddev	.77470	.0002998	.0003463	.000683	.000184	.0063514	.0053126
%RSD	1.445247	2.451936	15.12614	17.43864	2.505812	5.145331	55.47530
#1	52.77110	.0121960	.0020540	-.003228	-.007346	.1161456	.0049251
#2	53.73471	.0125396	.0021272	-.003924	-.007501	.1277483	.0084385
#3	54.30365	.0119423	.0026871	-.004594	-.007136	.1264251	.0153659

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1705-05 Acquired: 4/14/2025 15:52:03 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.808944	-.026138	10.58002
Stddev	.004051	.000966	.09094
%RSD	.2239373	3.694926	.8595684
#1	1.804267	-.026396	10.62012
#2	1.811236	-.026949	10.47592
#3	1.811329	-.025070	10.64402

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2353.676	58049.78	12142.36	1525.147	3441.917
Stddev	5.085	297.16	61.79	13.313	4.101
%RSD	.2160354	.5119021	.5088726	.8729277	.1191569
#1	2348.342	58386.78	12083.07	1538.973	3438.544
#2	2354.218	57825.34	12137.62	1512.414	3440.724
#3	2358.468	57937.23	12206.38	1524.052	3446.482

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167533BL Acquired: 4/14/2025 15:56:46 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0024009	-.000260	.0001106	.0007768	.0004451	.0023080	-.000404
Stddev	.0007239	.001612	.0009191	.0001705	.0017854	.0036136	.001011
%RSD	30.15319	619.6479	831.3806	21.94764	401.1082	156.5666	250.3399
#1	.0021379	.001583	-.000697	.0006445	-.000126	-.000999	-.000037
#2	.0032195	-.001404	.001111	.0009692	-.000985	.001758	-.001547
#3	.0018451	-.000960	-.000082	.0007167	.002446	.006165	.000373

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000024	.0000019	-.003432	-.000145	-.000072	.0059668	-.001344
Stddev	.000035	.0000382	.006667	.000211	.000110	.0002569	.000806
%RSD	148.4623	2031.661	194.2297	145.8639	153.2399	4.305032	60.01157
#1	-.000032	.0000042	-.007812	-.000083	.000053	.0062060	-.001397
#2	.000015	-.000037	-.006725	-.000380	-.000116	.0056953	-.000512
#3	-.000055	.000039	.004240	.000029	-.000153	.0059990	-.002122

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002710	.0119200	.0004866	-.000260	.3269882	-.000035	.0001764
Stddev	.0004674	.0178628	.0001191	.000048	.0075035	.000760	.0003259
%RSD	172.4335	149.8559	24.46708	18.35481	2.294742	2149.891	184.7929
#1	.0005421	-.004951	.0004347	-.000313	.3355389	-.000598	.0004512
#2	.0005396	.030632	.0004024	-.000245	.3239242	.000830	-.000184
#3	-.000269	.010079	.0006229	-.000221	.3215015	-.000338	.000262

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1178066	-.001070	-.000023	-.000522	-.000260	.0047525	.0027674
Stddev	.0322250	.000495	.000186	.000532	.000355	.0028171	.0018405
%RSD	27.35412	46.20374	825.0474	101.9793	136.7429	59.27575	66.50578
#1	.0807355	-.000541	-.000040	-.001127	-.000490	.0076740	.0048453
#2	.1391257	-.001521	-.000200	-.000314	.000149	.0020530	.0021144
#3	.1335587	-.001149	.000172	-.000125	-.000439	.0045305	.0013425

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167533BL Acquired: 4/14/2025 15:56:46 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0012110	.0088726	.0000824
Stddev	.0022123	.0007889	.0000342
%RSD	182.6914	8.891866	41.47084
#1	.0033819	.0097730	.0000436
#2	.0012915	.0085426	.0000957
#3	-.001041	.0083023	.0001080

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2793.061	68356.76	12882.60	1849.464	4476.408
Stddev	8.867	207.26	48.65	9.620	9.421
%RSD	.3174493	.3032047	.3776058	.5201678	.2104672
#1	2788.410	68140.37	12826.99	1843.607	4472.921
#2	2787.487	68553.49	12917.29	1860.567	4469.227
#3	2803.285	68376.42	12903.52	1844.217	4487.076

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167533BS Acquired: 4/14/2025 16:01:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8159887	2.056020	1.009260	2.048776	.8212044	1.917307
Stddev	.0009664	.011277	.002335	.000999	.0023097	.006837
%RSD	.1184299	.5484689	.2313596	.0487369	.2812551	.3566192
#1	.8170620	2.067648	1.009463	2.047854	.8216364	1.924658
#2	.8157165	2.055282	1.006831	2.049837	.8232677	1.916127
#3	.8151876	2.045131	1.011487	2.048636	.8187093	1.911136

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1935461	.1950760	.2048770	1.000355	.4012435	.1984969
Stddev	.0016281	.0006293	.0001602	.005769	.0009486	.0000992
%RSD	.8411686	.3225825	.0781876	.5766641	.2364170	.0499918
#1	.1947464	.1952477	.2050005	.993921	.4023318	.1986093
#2	.1941990	.1956017	.2046960	1.002077	.4008062	.1984600
#3	.1916930	.1943787	.2049345	1.005065	.4005924	.1984214

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3101804	3.025496	.1989749	1.900971	.4968422	.0743582
Stddev	.0002625	.017142	.0009710	.004422	.0003393	.0002796
%RSD	.0846223	.5665884	.4879937	.2326406	.0682898	.3760355
#1	.3101091	3.045284	.2000592	1.896128	.4966352	.0743394
#2	.3104712	3.015177	.1986797	1.904795	.4966577	.0740885
#3	.3099610	3.016027	.1981857	1.901991	.4972338	.0746468

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.999620	.2924887	.2021113	9.695306	.2841417	.4114842
Stddev	.017749	.0009626	.0005190	.036473	.0007419	.0012855
%RSD	.5917075	.3290985	.2567790	.3761975	.2611035	.3124091
#1	2.987918	.2927754	.2026401	9.727698	.2848271	.4127520
#2	2.990899	.2914154	.2016027	9.655799	.2833539	.4101817
#3	3.020042	.2932754	.2020910	9.702420	.2842439	.4115188

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167533BS Acquired: 4/14/2025 16:01:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7035654	.1975947	F .6945906	5.995569	F -.003115	.2095688
Stddev	.0008370	.0005721	.0093578	.000823	.003755	.0007670
%RSD	.1189668	.2895054	1.347242	.0137287	120.5597	.3659793
#1	.7039996	.1976705	.6968241	5.995567	-.003141	.2098186
#2	.7026005	.1969885	.6843181	5.996394	.000653	.2101797
#3	.7040960	.1981250	.7026295	5.994747	-.006857	.2087080

Elem	Sr4077
Units	ppm
Avg	.2030801
Stddev	.0003725
%RSD	.1834234
#1	.2035085
#2	.2028995
#3	.2028323

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2766.343	67205.05	13544.90	1855.833	4314.741
Stddev	7.930	78.50	37.59	3.476	9.262
%RSD	.2866432	.1168074	.2774912	.1873026	.2146601
#1	2762.431	67163.75	13556.55	1856.927	4310.608
#2	2761.130	67295.57	13502.87	1858.630	4308.265
#3	2775.468	67155.82	13575.28	1851.941	4325.350

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1753-04 Acquired: 4/14/2025 16:05:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002352	-.007647	-.000021	.0039831	.0002165	.1268165	.3388255
Stddev	.002905	.001679	.001484	.0023441	.0014107	.0007197	.0002179
%RSD	123.5359	21.95264	6990.198	58.85057	651.6982	.5675278	.0643132
#1	-.001471	-.006929	-.001501	.0017918	-.000527	.1271635	.3386150
#2	-.005595	-.009565	-.000029	.0064548	.001843	.1272969	.3390501
#3	.000011	-.006446	.001467	.0037028	-.000667	.1259890	.3388114

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000936	.0001920	3.723620	.0001583	.0031213	.0160125	.0035978
Stddev	.0000364	.0000285	.010553	.0003783	.0000787	.0001238	.0065003
%RSD	38.85898	14.84528	.2833977	238.8833	2.520573	.7729572	180.6713
#1	.0001172	.0002164	3.716594	-.000010	.0031000	.0161259	.0024131
#2	.0000517	.0001607	3.718511	.000592	.0032084	.0158805	.0106090
#3	.0001119	.0001990	3.735755	-.000107	.0030554	.0160310	-.002229

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3812545	1.490385	.0027483	-.000628	357.9920	.0013552	.2238255
Stddev	.0002969	.009603	.0004018	.000349	4.5210	.0006507	.0006342
%RSD	.0778692	.6443157	14.61980	55.55322	1.262879	48.01362	.2833326
#1	.3812153	1.497040	.0031804	-.000699	357.3498	.0020618	.2231192
#2	.3809792	1.479377	.0026783	-.000249	353.8264	.0012235	.2243461
#3	.3815690	1.494739	.0023860	-.000936	362.7997	.0007805	.2240111

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6824296	.0291893	-.000361	-.000887	-.000915	.4074514	.0119928
Stddev	.0193522	.0000239	.000178	.000495	.000317	.0037761	.0042842
%RSD	2.835775	.0819838	49.36275	55.78022	34.65455	.9267555	35.72304
#1	.7037107	.0291802	-.000564	-.001352	-.000967	.4034152	.0115138
#2	.6776917	.0291713	-.000284	-.000940	-.001203	.4080410	.0079683
#3	.6658863	.0292165	-.000234	-.000367	-.000575	.4108980	.0164964

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1753-04 Acquired: 4/14/2025 16:05:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4266255	-.002651	.0337850
Stddev	.0062149	.000357	.0001457
%RSD	1.456756	13.44925	.4311877
#1	.4201461	-.003059	.0336176
#2	.4325369	-.002398	.0338831
#3	.4271934	-.002496	.0338542

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2641.446	64994.58	13019.18	1756.166	3898.935
Stddev	3.471	217.74	70.52	9.426	7.915
%RSD	.1313931	.3350074	.5416445	.5367156	.2029930
#1	2638.452	64754.26	12942.95	1746.474	3896.886
#2	2645.250	65178.74	13082.08	1765.300	3907.673
#3	2640.634	65050.73	13032.51	1756.723	3892.247

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1753-08 Acquired: 4/14/2025 16:09:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011340	-.007072	.0088729	-.002263	.0036431	.0439026	.2502245
Stddev	.0031633	.001293	.0003287	.004686	.0012149	.0023266	.0011625
%RSD	278.9390	18.28928	3.704771	207.0850	33.34759	5.299451	.4645741
#1	.0047081	-.008280	.0092206	-.003978	.0035013	.0424988	.2491356
#2	-.000000	-.007229	.0088308	.003039	.0049226	.0426209	.2514487
#3	-.001306	-.005707	.0085672	-.005849	.0025053	.0465882	.2500893

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000181	.0001652	10.19380	-.000122	.0066659	.0136622	.0119959
Stddev	.000037	.0000867	.04149	.000343	.0000863	.0002211	.0019916
%RSD	20.49540	52.50152	.4069694	282.2325	1.294333	1.618252	16.60221
#1	-.000224	.0000666	10.18104	-.000423	.0067398	.0139149	.0096972
#2	-.000156	.0002298	10.24016	-.000194	.0065711	.0135043	.0130875
#3	-.000165	.0001992	10.16019	.000252	.0066868	.0135674	.0132029

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.372803	3.391618	.0071593	.0002595	375.7451	.0001141	.0635324
Stddev	.008789	.009279	.0001936	.0002987	4.7053	.0016193	.0003194
%RSD	.3704117	.2735921	2.704379	115.0834	1.252252	1419.478	.5027114
#1	2.374091	3.401010	.0071544	.0005811	377.8506	-.001742	.0631636
#2	2.380878	3.391388	.0069682	-.000009	379.0299	.001235	.0637132
#3	2.363442	3.382456	.0073553	.000207	370.3547	.000850	.0637204

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.147102	.0285738	-.000345	.0003571	-.000400	.5850195	.0196060
Stddev	.003806	.0009964	.000361	.0008476	.000633	.0049395	.0018882
%RSD	.3317583	3.487048	104.6138	237.3405	158.1368	.8443258	9.630513
#1	1.146480	.0280230	-.000173	.0008038	.000323	.5880958	.0217042
#2	1.143645	.0297240	-.000759	-.000620	-.000674	.5876408	.0190700
#3	1.151180	.0279744	-.000102	.000888	-.000850	.5793220	.0180437

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1753-08 Acquired: 4/14/2025 16:09:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2739794	-.001221	.0538869
Stddev	.0042832	.000590	.0001907
%RSD	1.563328	48.28059	.3539169
#1	.2707731	-.001713	.0537562
#2	.2723215	-.000568	.0541057
#3	.2788438	-.001384	.0537987

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2568.294	63335.39	12888.91	1721.133	3810.792
Stddev	8.358	164.91	90.30	1.443	19.663
%RSD	.3254125	.2603683	.7006094	.0838597	.5159804
#1	2576.500	63204.40	12850.62	1719.515	3830.877
#2	2568.590	63281.18	12824.06	1721.598	3809.917
#3	2559.793	63520.57	12992.04	1722.287	3791.581

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCV03 Acquired: 4/14/2025 16:28:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.886876	4.869625	4.931722	4.902912	4.914872	9.757213	9.873915
Stddev	.013240	.051761	.016966	.011144	.013114	.014714	.117677
%RSD	.2709294	1.062939	.3440221	.2272994	.2668132	.1507990	1.191801
#1	4.875764	4.812880	4.939415	4.890329	4.918155	9.772768	9.869280
#2	4.883340	4.881743	4.912272	4.906869	4.900428	9.743518	9.758624
#3	4.901525	4.914252	4.943478	4.911537	4.926031	9.755353	9.993842

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2484420	2.472973	24.42673	.9833581	2.476052	1.246382	4.971120
Stddev	.0015434	.008271	.12422	.0013258	.006283	.003439	.011998
%RSD	.6212207	.3344497	.5085426	.1348250	.2537505	.2759244	.2413523
#1	.2485103	2.476821	24.38299	.9818793	2.479401	1.244925	4.957338
#2	.2468657	2.463479	24.33030	.9837546	2.468804	1.243911	4.976794
#3	.2499502	2.478618	24.56691	.9844405	2.479951	1.250310	4.979229

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.461418	24.20106	2.471467	1.234428	26.48218	2.448925	2.471957
Stddev	.009967	.12661	.005940	.001176	.14124	.008560	.004391
%RSD	.4049304	.5231687	.2403454	.0952281	.5333574	.3495302	.1776461
#1	2.454432	24.12598	2.473988	1.233465	26.38009	2.445593	2.470131
#2	2.456990	24.12996	2.464682	1.234080	26.64338	2.442533	2.476966
#3	2.472831	24.34724	2.475731	1.235738	26.42309	2.458650	2.468772

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.07955	4.973866	4.946534	4.950649	4.906966	4.867039	5.063554
Stddev	.15317	.035019	.008300	.017054	.008637	.033029	.014737
%RSD	.5873090	.7040538	.1677931	.3444855	.1760074	.6786209	.2910313
#1	25.98766	4.976548	4.945290	4.950880	4.904919	4.847196	5.054817
#2	26.25637	4.937584	4.938926	4.933481	4.899537	4.905167	5.055277
#3	25.99463	5.007467	4.955386	4.967587	4.916443	4.848755	5.080568

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCV03 Acquired: 4/14/2025 16:28:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.937239	4.931351	4.972798
Stddev	.003048	.003590	.044961
%RSD	.0617364	.0727994	.9041473
#1	4.937832	4.928851	4.949951
#2	4.933938	4.935465	4.943848
#3	4.939947	4.929738	5.024596

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2695.468	64918.40	12790.59	1776.210	4029.428
Stddev	6.378	189.57	85.44	6.754	10.678
%RSD	.2366265	.2920149	.6679764	.3802638	.2650119
#1	2689.531	65131.75	12809.49	1783.125	4020.293
#2	2702.211	64854.10	12864.99	1769.629	4041.168
#3	2694.663	64769.34	12697.28	1775.876	4026.824

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCB03 Acquired: 4/14/2025 16:32:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0015495	-.000101	-.000564	-.001236	.0024498	.0030914	.0002361
Stddev	.0013001	.000993	.000947	.003544	.0011233	.0011149	.0003333
%RSD	83.90787	985.5765	167.8956	286.7461	45.85339	36.06439	141.1362
#1	.0029899	.000080	-.001106	.002361	.0033959	.0025889	-.000148
#2	.0011957	.000789	-.001115	-.001343	.0027453	.0023163	.000417
#3	.0004629	-.001172	.000529	-.004725	.0012083	.0043691	.000440

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000312	.0000710	-.001042	-.000166	.0002150	.0003891	-.003192
Stddev	.0000191	.0000155	.011626	.000118	.0001468	.0000243	.001191
%RSD	61.36632	21.86912	1115.506	71.04416	68.26843	6.248536	37.32196
#1	.0000091	.0000650	.002468	-.000039	.0003769	.0003612	-.003975
#2	.0000428	.0000886	.008425	-.000272	.0001773	.0004051	-.001821
#3	.0000417	.0000594	-.014019	-.000187	.0000907	.0004012	-.003780

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008344	.0092190	-.000239	-.000021	.0388314	.0006395	-.000132
Stddev	.0003827	.0143963	.000112	.000369	.0110502	.0008990	.000271
%RSD	45.86580	156.1580	46.82644	1766.052	28.45701	140.5725	204.8723
#1	.0005586	-.005840	-.000123	.000281	.0260756	.0004739	.000177
#2	.0006732	.010652	-.000249	.000089	.0449327	-.000165	-.000247
#3	.0012713	.022845	-.000347	-.000433	.0454858	.001610	-.000327

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.054859	.0098828	.0002340	-.000027	-.000718	.0185497	.0039960
Stddev	.009749	.0003853	.0001716	.000343	.000944	.0027494	.0009690
%RSD	17.77058	3.898858	73.33120	1260.544	131.3943	14.82205	24.24879
#1	-.044195	.0102603	.0002431	.000368	-.001735	.0208824	.0046983
#2	-.063314	.0098979	.0000580	-.000214	.000129	.0192482	.0043992
#3	-.057067	.0094901	.0004008	-.000236	-.000549	.0155183	.0028905

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCB03 Acquired: 4/14/2025 16:32:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002356	.0017227	.0001745
Stddev	.002663	.0004114	.0000304
%RSD	113.0377	23.88076	17.43244
#1	-.004862	.0013200	.0001724
#2	-.002646	.0017059	.0001453
#3	.000440	.0021423	.0002060

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2787.498	67668.71	13199.62	1861.177	4438.036
Stddev	2.400	92.03	29.42	2.100	6.451
%RSD	.0861148	.1360064	.2229062	.1128504	.1453533
#1	2788.225	67585.01	13231.10	1858.962	4436.968
#2	2789.451	67653.84	13194.92	1861.427	4444.954
#3	2784.818	67767.27	13172.82	1863.141	4432.185

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1753-01 Acquired: 4/14/2025 16:37:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0446263	.0053076	.1234240	.0012678	-.006766	116.3110	.5519395
Stddev	.0013343	.0009925	.0018161	.0084917	.003694	.1284	.0021444
%RSD	2.989969	18.69995	1.471419	669.8033	54.59395	.1103899	.3885180
#1	.0434020	.0047259	.1222796	.0108576	-.005741	116.4584	.5526551
#2	.0444284	.0047433	.1255180	-.005298	-.010864	116.2239	.5495288
#3	.0460485	.0064536	.1224745	-.001756	-.003693	116.2506	.5536346

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0108032	.0000429	12.14235	.2008933	.1229991	.3853844	238.8693
Stddev	.0001791	.0002928	.02661	.0003763	.0005378	.0008661	1.4173
%RSD	1.657863	682.9229	.2191503	.1873065	.4372452	.2247393	.5933507
#1	.0106386	-.000254	12.16199	.2005288	.1233704	.3854437	240.4502
#2	.0107772	.000332	12.11207	.2012803	.1223823	.3844902	237.7121
#3	.0109939	.000051	12.15300	.2008708	.1232445	.3862194	238.4457

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.865392	43.18579	.2353525	-.010919	1.192165	.3083714	.6544134
Stddev	.019279	.15751	.0003096	.000097	.015737	.0011727	.0029665
%RSD	.3286849	.3647201	.1315465	.8849249	1.320075	.3802772	.4533006
#1	5.871392	43.09054	.2350602	-.010906	1.208679	.3070581	.6577976
#2	5.843826	43.09924	.2353203	-.011022	1.190477	.3093135	.6531798
#3	5.880956	43.36759	.2356769	-.010830	1.177340	.3087426	.6522628

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.70700	-.302121	.0042453	-.002687	4.193295	6.547040	6.823449
Stddev	.11667	.007508	.0002439	.001108	.005642	.037569	.023489
%RSD	.9966256	2.485031	5.745989	41.23754	.1345556	.5738393	.3442365
#1	11.84095	-.294339	.0044891	-.001408	4.197064	6.587429	6.842413
#2	11.65255	-.302702	.0040012	-.003358	4.186808	6.540557	6.797174
#3	11.62751	-.309321	.0042455	-.003295	4.196013	6.513134	6.830761

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1753-01 Acquired: 4/14/2025 16:37:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4547761	.2939697	.0738999
Stddev	.0081517	.0010640	.0002678
%RSD	1.792468	.3619525	.3624119
#1	.4537626	.2941336	.0741792
#2	.4471785	.2928332	.0736453
#3	.4633872	.2949423	.0738751

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3092.463	74043.64	14243.54	2027.863	4028.875
Stddev	3.581	226.42	54.09	16.361	7.344
%RSD	.1158030	.3057904	.3797492	.8068339	.1822804
#1	3089.493	73794.98	14303.69	2009.301	4020.937
#2	3096.440	74098.03	14228.04	2040.192	4035.427
#3	3091.457	74237.91	14198.89	2034.097	4030.261

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1753-05 Acquired: 4/14/2025 16:41:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0682958	.0145125	.1980848	.0050138	-.013901	132.8121	.9698961
Stddev	.0024807	.0015955	.0018960	.0023535	.002187	.1708	.0004398
%RSD	3.632207	10.99388	.9571435	46.94082	15.72951	.1286263	.0453416
#1	.0705011	.0137738	.1959167	.0077098	-.016151	132.6926	.9699889
#2	.0687763	.0134203	.1994317	.0039611	-.013770	132.7359	.9702820
#3	.0656101	.0163435	.1989059	.0033703	-.011783	133.0077	.9694173

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0112406	-.005089	23.54524	.2682996	.1312069	.2304373	313.3733
Stddev	.0000248	.000101	.07251	.0002483	.0003935	.0006566	.7042
%RSD	.2205497	1.986088	.3079731	.0925603	.2999323	.2849506	.2247107
#1	.0112562	-.005001	23.62799	.2684037	.1308066	.2300467	312.5672
#2	.0112120	-.005066	23.49278	.2684789	.1315933	.2300698	313.8687
#3	.0112537	-.005199	23.51495	.2680161	.1312206	.2311954	313.6839

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.828061	59.03980	.2884429	-.009843	1.346632	.3606539	.6452732
Stddev	.023078	.22928	.0002349	.000120	.013553	.0006168	.0016390
%RSD	.3379874	.3883415	.0814350	1.219592	1.006402	.1710239	.2540034
#1	6.854682	59.29328	.2882044	-.009772	1.352609	.3613546	.6452432
#2	6.813718	58.84688	.2884503	-.009775	1.356169	.3601930	.6436494
#3	6.815781	58.97926	.2886740	-.009982	1.331119	.3604141	.6469270

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.21543	-.245996	.0065397	.0040348	2.806998	4.802849	6.830051
Stddev	.10338	.012462	.0003522	.0003577	.002118	.036636	.016233
%RSD	.6375666	5.065769	5.385853	8.865258	.0754608	.7627968	.2376696
#1	16.09607	-.259050	.0063893	.0041758	2.809356	4.761135	6.812481
#2	16.27367	-.234226	.0062878	.0043005	2.805257	4.829802	6.833184
#3	16.27657	-.244713	.0069422	.0036281	2.806382	4.817611	6.844490

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1753-05 Acquired: 4/14/2025 16:41:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3765299	.4602594	.1471540
Stddev	.0020971	.0022437	.0002363
%RSD	.5569419	.4874801	.1605996
#1	.3750575	.4580252	.1474195
#2	.3756012	.4625124	.1469667
#3	.3789309	.4602405	.1470759

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2989.547	72214.94	15205.97	1971.041	3943.227
Stddev	4.116	11.80	90.69	4.516	5.469
%RSD	.1376774	.0163349	.5964146	.2291351	.1386827
#1	2985.670	72203.84	15101.77	1965.904	3939.754
#2	2989.105	72213.66	15267.08	1974.390	3940.397
#3	2993.866	72227.33	15249.07	1972.828	3949.531

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1768-01 Acquired: 4/14/2025 16:45:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0789032	-.013776	6.930351	.0025048	.0593756	137.7112
Stddev	.0059775	.001202	.022438	.0035260	.0030218	.1123
%RSD	7.575738	8.726690	.3237601	140.7743	5.089367	.0815799
#1	.0730155	-.012565	6.905862	.0051830	.0562909	137.6299
#2	.0787274	-.013793	6.935269	.0038213	.0595055	137.6644
#3	.0849666	-.014970	6.949921	-.001490	.0623304	137.8394

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.206752	.0074232	.0171688	112.8602	.7239206	.1022468
Stddev	.002444	.0000375	.0002413	.4029	.0005262	.0003571
%RSD	.2025523	.5045880	1.405367	.3569775	.0726893	.3492118
#1	1.209405	.0073804	.0170502	112.8174	.7243269	.1020791
#2	1.206261	.0074501	.0170099	112.4804	.7241086	.1020043
#3	1.204590	.0074390	.0174465	113.2828	.7233261	.1026568

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.866396	233.1036	3.293061	59.23645	.4329229	.1381583
Stddev	.003988	.4740	.010631	.27690	.0012247	.0000936
%RSD	.0819529	.2033233	.3228339	.4674463	.2828930	.0677509
#1	4.864747	233.5080	3.300753	59.25331	.4324532	.1381916
#2	4.863498	233.2208	3.280930	58.95151	.4320026	.1380526
#3	4.870945	232.5821	3.297502	59.50454	.4343130	.1382307

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.954182	.4884083	F 33.17195	9.633512	.1281286	.0359389
Stddev	.019977	.0012432	.42783	.012961	.0059071	.0003443
%RSD	.3355180	.2545449	1.289724	.1345429	4.610316	.9581584
#1	5.944888	.4882035	33.66595	9.640321	.1283201	.0362749
#2	5.977113	.4897413	32.92786	9.641650	.1339376	.0355868
#3	5.940545	.4872803	32.92204	9.618566	.1221280	.0359550

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1768-01 Acquired: 4/14/2025 16:45:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.053063	8.353458	7.372045	11.40936	20.56043	.1595028
Stddev	.006450	.007052	.005005	.03173	.07958	.0001222
%RSD	.6124745	.0844173	.0678976	.2780661	.3870517	.0766165
#1	1.050130	8.353918	7.376830	11.39789	20.47369	.1593777
#2	1.048600	8.346187	7.372460	11.38497	20.57755	.1595089
#3	1.060458	8.360268	7.366845	11.44523	20.63007	.1596218

Elem	Sr4077
Units	ppm
Avg	.4462584
Stddev	.0008378
%RSD	.1877434
#1	.4472128
#2	.4459180
#3	.4456443

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2780.409	68880.81	14057.99	1815.974	3733.882
Stddev	.549	39.84	73.26	2.895	4.839
%RSD	.0197283	.0578395	.5211563	.1594161	.1295981
#1	2780.789	68882.97	14071.61	1816.449	3738.768
#2	2780.657	68919.52	14123.48	1818.602	3733.786
#3	2779.780	68839.93	13978.87	1812.870	3729.092

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1756-01 Acquired: 4/14/2025 16:49:36 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1073409	.0021619	3.767615	.0010098	-.012812	81.00566	1.708718
Stddev	.0022866	.0031222	.011635	.0009345	.001865	.20487	.004026
%RSD	2.130221	144.4197	.3088040	92.55163	14.55526	.2529088	.2355973
#1	.1074648	-.001422	3.754850	.0014026	-.011102	81.18977	1.710872
#2	.1049948	.004290	3.770371	.0016838	-.014801	81.04225	1.711209
#3	.1095630	.003618	3.777624	-.000057	-.012534	80.78496	1.704074

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0083769	.0056124	32.97787	.2227192	.0998359	.5855842	186.3260
Stddev	.0000555	.0001158	.14072	.0019288	.0002557	.0000394	.8026
%RSD	.6626135	2.063494	.4267196	.8660404	.2561511	.0067288	.4307714
#1	.0083972	.0055705	32.96029	.2248178	.0996501	.5856216	187.2299
#2	.0084195	.0055234	33.12656	.2223162	.1001276	.5855880	186.0518
#3	.0083142	.0057433	32.84677	.2210238	.0997300	.5855431	185.6965

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.668379	20.45657	.1713201	-.007608	.9267450	.2777222	1.117824
Stddev	.018765	.09210	.0005832	.000261	.0038482	.0006584	.006403
%RSD	.4019619	.4502326	.3404023	3.429994	.4152424	.2370818	.5727653
#1	4.668325	20.42128	.1710117	-.007831	.9301556	.2784626	1.120927
#2	4.687171	20.56110	.1719928	-.007321	.9275064	.2772023	1.122082
#3	4.649640	20.38733	.1709560	-.007671	.9225729	.2775018	1.110461

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.381347	-.285098	.0019758	.7156269	1.928400	9.974318	9.481103
Stddev	.025533	.004242	.0001067	.0036600	.008422	.048711	.008530
%RSD	.4001208	1.488022	5.400509	.5114431	.4367103	.4883689	.0899674
#1	6.388154	-.282706	.0020531	.7114195	1.932750	10.03015	9.484618
#2	6.353100	-.289996	.0020203	.7173850	1.933756	9.95230	9.487314
#3	6.402787	-.282591	.0018541	.7180760	1.918693	9.94050	9.471377

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1756-01 Acquired: 4/14/2025 16:49:36 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.954879	.1753629	.1765079
Stddev	.005834	.0003334	.0008362
%RSD	.2984468	.1901188	.4737675
#1	1.949262	.1749786	.1767529
#2	1.960909	.1755751	.1771943
#3	1.954468	.1755351	.1755766

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3168.177	77411.64	14821.90	2085.667	3986.524
Stddev	4.509	478.91	83.63	10.261	7.625
%RSD	.1423152	.6186586	.5642187	.4919649	.1912609
#1	3168.237	76883.96	14779.29	2075.647	3994.310
#2	3172.656	77532.22	14768.16	2085.200	3986.190
#3	3163.639	77818.74	14918.25	2096.153	3979.072

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1760-01 Acquired: 4/14/2025 16:53:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0283195	.0048338	.1453588	-.000528	-.008306	72.38275	.8222500
Stddev	.0046572	.0019749	.0018490	.001788	.001072	.19702	.0008541
%RSD	16.44524	40.85710	1.272046	338.7718	12.91073	.2721976	.1038751
#1	.0231663	.0025945	.1474321	-.001046	-.009460	72.18327	.8212958
#2	.0295647	.0055796	.1438807	.001462	-.008119	72.38775	.8229432
#3	.0322276	.0063272	.1447635	-.001999	-.007340	72.57722	.8225108

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0084934	.0005286	24.20377	.1586009	.0689486	.2049707	168.4185
Stddev	.0000448	.0000303	.14892	.0003688	.0004964	.0002840	.7423
%RSD	.5279185	5.731514	.6152633	.2325574	.7199831	.1385806	.4407209
#1	.0085065	.0005319	24.11272	.1590158	.0684082	.2052775	168.9938
#2	.0084434	.0004967	24.12298	.1583100	.0693844	.2047168	168.6809
#3	.0085302	.0005570	24.37563	.1584770	.0690532	.2049178	167.5806

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.628488	23.58934	.1700323	-.007483	2.611827	.1967051	.3894316
Stddev	.015242	.22777	.0000720	.000122	.031580	.0010300	.0010586
%RSD	.5798753	.9655578	.0423518	1.635821	1.209113	.5236442	.2718423
#1	2.616122	23.38938	.1700082	-.007618	2.608763	.1958879	.3891449
#2	2.623826	23.54135	.1699754	-.007379	2.644827	.1978621	.3885459
#3	2.645517	23.83727	.1701132	-.007453	2.581891	.1963655	.3906041

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.843014	-.206058	.0005810	-.000345	2.303144	9.664653	6.156264
Stddev	.062967	.013380	.0003262	.000469	.003205	.078567	.021808
%RSD	.9201615	6.493117	56.14450	135.8065	.1391566	.8129323	.3542430
#1	6.886937	-.196362	.0002048	.000196	2.301934	9.684501	6.173636
#2	6.871232	-.200489	.0007858	-.000628	2.300721	9.731392	6.131790
#3	6.770874	-.221322	.0007523	-.000604	2.306778	9.578065	6.163366

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1760-01 Acquired: 4/14/2025 16:53:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1294042	.1692021	.1030227
Stddev	.0044801	.0004506	.0000899
%RSD	3.462055	.2663193	.0872978
#1	.1248816	.1696267	.1030672
#2	.1338404	.1692502	.1030818
#3	.1294908	.1687293	.1029192

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3197.461	78675.28	15306.99	2102.361	4109.845
Stddev	2.974	137.35	151.05	5.528	3.635
%RSD	.0930150	.1745803	.9867964	.2629487	.0884379
#1	3195.526	78579.13	15412.05	2102.841	4107.292
#2	3195.971	78614.13	15375.03	2096.608	4108.237
#3	3200.886	78832.59	15133.89	2107.633	4114.007

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1760-05 Acquired: 4/14/2025 16:57:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0373045	.0035613	.1341518	.0002654	-.005586	64.64569	.7973723
Stddev	.0011692	.0034437	.0014795	.0029230	.002597	.10943	.0024443
%RSD	3.134214	96.69977	1.102829	1101.468	46.49914	.1692743	.3065469
#1	.0363047	-.000236	.1357358	.0004037	-.008578	64.52383	.7955536
#2	.0370188	.004437	.1328058	-.002724	-.003912	64.67769	.7964124
#3	.0385901	.006483	.1339140	.003117	-.004267	64.73555	.8001509

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0083996	.0006973	18.23349	.1339269	.0877350	.2488908	163.1776
Stddev	.0000883	.0000334	.08299	.0005263	.0003892	.0004227	.3580
%RSD	1.050958	4.789224	.4551663	.3929373	.4435648	.1698449	.2193672
#1	.0084039	.0007219	18.17908	.1336045	.0877766	.2493788	163.5660
#2	.0083093	.0006593	18.19239	.1336420	.0873267	.2486548	163.1060
#3	.0084856	.0007107	18.32902	.1345341	.0881017	.2486387	162.8609

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.700569	21.13116	.1921897	-.006971	3.366709	.1749640	.3843463
Stddev	.017514	.07735	.0005523	.000027	.008966	.0009058	.0009193
%RSD	.2274319	.3660374	.2873902	.3897654	.2663075	.5177250	.2391955
#1	7.688637	21.08995	.1918929	-.006943	3.376683	.1745832	.3849358
#2	7.692396	21.08314	.1918492	-.006975	3.364127	.1759981	.3832870
#3	7.720675	21.22038	.1928270	-.006997	3.359318	.1743108	.3848161

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.773436	-.189119	.0002156	-.000250	2.047277	9.066517	5.763237
Stddev	.015799	.002865	.0001228	.000167	.003632	.028747	.018930
%RSD	.2332471	1.515157	56.96638	66.60491	.1773975	.3170642	.3284573
#1	6.778582	-.189932	.0002301	-.000414	2.043476	9.089985	5.779903
#2	6.786021	-.185935	.0000861	-.000257	2.047640	9.075114	5.742656
#3	6.755706	-.191490	.0003304	-.000081	2.050713	9.034453	5.767151

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1760-05 Acquired: 4/14/2025 16:57:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.189700	.1657646	.0865092
Stddev	.006491	.0004957	.0001755
%RSD	.5455826	.2990475	.2029042
#1	1.196544	.1654392	.0863581
#2	1.188925	.1655195	.0864679
#3	1.183632	.1663351	.0867017

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3193.281	78453.16	15326.76	2121.903	4051.282
Stddev	7.267	134.14	78.14	9.039	7.666
%RSD	.2275760	.1709838	.5098468	.4259987	.1892178
#1	3184.940	78325.21	15359.15	2111.671	4044.505
#2	3196.655	78592.74	15383.50	2125.235	4059.602
#3	3198.247	78441.53	15237.63	2128.803	4049.738

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1779-01 Acquired: 4/14/2025 17:01:54 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0308188	.0031283	.2352597	-.001545	-.009045	94.60611	.5499426
Stddev	.0012403	.0019617	.0004576	.004002	.001756	.19433	.0028854
%RSD	4.024580	62.70831	.1945149	259.0223	19.41544	.2054096	.5246684
#1	.0322453	.0053922	.2354492	-.000369	-.010311	94.63014	.5520765
#2	.0299943	.0020618	.2347378	-.006004	-.009784	94.40088	.5510917
#3	.0302169	.0019309	.2355922	.001737	-.007040	94.78731	.5466598

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0099751	.0012182	21.67053	.1619439	.1017321	.2827402	181.8219
Stddev	.0000656	.0000681	.02995	.0016175	.0001690	.0008582	.3101
%RSD	.6574457	5.593840	.1382140	.9988240	.1661616	.3035330	.1705288
#1	.0099004	.0011663	21.69096	.1625900	.1015807	.2836582	181.6349
#2	.0100234	.0011929	21.68448	.1601032	.1017010	.2826046	181.6509
#3	.0100014	.0012954	21.63615	.1631385	.1019145	.2819579	182.1798

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.262944	28.14155	.1701844	-.009895	10.16577	.2158875	.4917541
Stddev	.008693	.04548	.0004941	.000162	.04077	.0009342	.0003961
%RSD	.1651738	.1616209	.2903578	1.638869	.4010878	.4327484	.0805428
#1	5.270635	28.12762	.1696327	-.009987	10.12208	.2153963	.4913617
#2	5.264686	28.10465	.1705863	-.009991	10.20281	.2169648	.4917468
#3	5.253513	28.19236	.1703342	-.009708	10.17243	.2153013	.4921538

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.846713	-.269739	.0016908	.0037864	2.694344	2.150192	4.118628
Stddev	.048490	.004775	.0002666	.0005571	.003039	.003324	.009422
%RSD	.5481184	1.770060	15.76578	14.71286	.1127936	.1545813	.2287763
#1	8.813023	-.271134	.0015968	.0043687	2.697021	2.146460	4.107764
#2	8.824828	-.273661	.0019916	.0032585	2.691041	2.152833	4.124572
#3	8.902289	-.264423	.0014839	.0037321	2.694970	2.151282	4.123548

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1779-01 Acquired: 4/14/2025 17:01:54 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3447047	.1930096	.1287018
Stddev	.0039028	.0011436	.0004052
%RSD	1.132216	.5925134	.3148628
#1	.3456965	.1934039	.1290674
#2	.3480159	.1917210	.1287720
#3	.3404017	.1939039	.1282661

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3124.053	75395.85	13989.81	2070.983	4044.691
Stddev	1.305	199.87	19.40	2.559	2.755
%RSD	.0417746	.2650952	.1386438	.1235409	.0681168
#1	3122.927	75491.28	13967.43	2073.188	4046.254
#2	3123.750	75530.13	14001.75	2071.582	4046.309
#3	3125.483	75166.16	14000.25	2068.178	4041.510

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1779-05 Acquired: 4/14/2025 17:06:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0518907	.0026497	1.013839	.0085805	-.009339	201.1944	.9292444
Stddev	.0026990	.0005447	.003070	.0056434	.001559	1.5986	.0018240
%RSD	5.201395	20.55490	.3027783	65.77036	16.69499	.7945790	.1962892
#1	.0517679	.0030265	1.015023	.0059274	-.009741	199.4366	.9290966
#2	.0546490	.0020253	1.016141	.0047525	-.010658	201.5853	.9311378
#3	.0492551	.0028973	1.010354	.0150616	-.007618	202.5614	.9274988

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0090483	-.001308	23.22121	.2004994	.0871305	.2080848	172.7339
Stddev	.0000673	.000056	.07363	.0011675	.0005510	.0006546	.6756
%RSD	.7434936	4.280529	.3170594	.5823073	.6323723	.3145677	.3911432
#1	.0090894	-.001370	23.15892	.2007135	.0873206	.2086864	173.5048
#2	.0089706	-.001292	23.20225	.1992396	.0865096	.2081802	172.2449
#3	.0090847	-.001261	23.30246	.2015450	.0875612	.2073877	172.4521

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.752313	25.02455	.1994628	-.005812	19.59830	.2853181	.5062448
Stddev	.001325	.06999	.0008358	.000416	.10876	.0013214	.0022679
%RSD	.0756349	.2796925	.4190032	7.164107	.5549215	.4631409	.4479822
#1	1.753674	24.96916	.1999492	-.006047	19.69319	.2863067	.5083419
#2	1.751026	25.00128	.1984978	-.006057	19.62209	.2838172	.5065547
#3	1.752239	25.10321	.1999415	-.005331	19.47962	.2858304	.5038380

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.440873	-.162237	.0027212	.0268244	1.859534	7.279510	6.808386
Stddev	.030155	.003841	.0004394	.0018610	.001985	.024989	.007984
%RSD	.4052635	2.367757	16.14917	6.937819	.1067437	.3432852	.1172637
#1	7.452289	-.157966	.0031073	.0271013	1.860253	7.296620	6.816905
#2	7.463654	-.165408	.0028132	.0248404	1.857290	7.291077	6.807178
#3	7.406677	-.163339	.0022430	.0285314	1.861059	7.250832	6.801075

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1779-05 Acquired: 4/14/2025 17:06:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.546807	.2006989	.1840462
Stddev	.012521	.0006721	.0001406
%RSD	.3530223	.3348818	.0764104
#1	3.534078	.2000329	.1839604
#2	3.547235	.2013770	.1842085
#3	3.559109	.2006868	.1839697

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3074.168	74348.45	15236.45	2030.088	3980.930
Stddev	5.908	201.12	30.52	10.632	8.943
%RSD	.1921807	.2705139	.2003029	.5237289	.2246347
#1	3067.725	74117.25	15259.98	2020.838	3971.106
#2	3079.332	74445.06	15247.39	2027.723	3988.596
#3	3075.446	74483.03	15201.96	2041.704	3983.087

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1779-05DUP Acquired: 4/14/2025 17:10:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0500731	.0070665	.9334315	.0115459	-.009620	207.0213	.9393809
Stddev	.0019406	.0007300	.0015057	.0045294	.002443	2.5552	.0041756
%RSD	3.875618	10.33020	.1613023	39.22970	25.38929	1.234259	.4445083
#1	.0500930	.0062250	.9317014	.0105465	-.009610	206.5059	.9392045
#2	.0481226	.0075287	.9341489	.0164916	-.007183	209.7949	.9352962
#3	.0520037	.0074459	.9344444	.0075997	-.012068	204.7631	.9436419

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0092190	-.001841	21.75842	.2085723	.0888304	.2119574	181.8903
Stddev	.0000303	.000210	.05425	.0000865	.0000855	.0009681	.4077
%RSD	.3281381	11.41822	.2493419	.0414843	.0962380	.4567224	.2241358
#1	.0091951	-.001699	21.79440	.2084913	.0888361	.2127308	181.5492
#2	.0092530	-.001742	21.78486	.2085620	.0889128	.2108718	181.7799
#3	.0092089	-.002083	21.69602	.2086635	.0887421	.2122697	182.3418

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.793926	25.61605	.2044371	-.005892	19.63807	.2995624	.5189852
Stddev	.002273	.11191	.0004997	.000072	.13451	.0005977	.0020103
%RSD	.1267093	.4368726	.2444377	1.226481	.6849361	.1995207	.3873581
#1	1.795729	25.66036	.2042724	-.005848	19.57039	.2995309	.5171364
#2	1.794676	25.69901	.2040405	-.005976	19.55083	.3001752	.5186940
#3	1.791372	25.48877	.2049984	-.005853	19.79297	.2989811	.5211253

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.671997	-.160667	.0032475	.0214871	1.894240	8.010454	6.767482
Stddev	.079496	.003538	.0002796	.0007531	.002606	.033097	.032961
%RSD	1.036180	2.202265	8.609572	3.504792	.1375900	.4131684	.4870468
#1	7.609656	-.162743	.0030271	.0222835	1.895380	7.997876	6.737509
#2	7.644817	-.162675	.0031534	.0213913	1.891258	7.985491	6.762156
#3	7.761518	-.156581	.0035620	.0207865	1.896083	8.047996	6.802782

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1779-05DUP Acquired: 4/14/2025 17:10:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.500079	.2089898	.1682993
Stddev	.016504	.0017626	.0005278
%RSD	.4715192	.8434121	.3136379
#1	3.489423	.2079326	.1683321
#2	3.491725	.2080121	.1677559
#3	3.519089	.2110246	.1688100

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3070.309	73612.76	15231.87	2017.870	3980.233
Stddev	4.081	122.82	73.01	7.683	6.731
%RSD	.1329177	.1668454	.4793156	.3807703	.1691192
#1	3065.892	73656.39	15206.02	2026.693	3973.749
#2	3073.940	73474.09	15175.31	2012.655	3987.187
#3	3071.095	73707.82	15314.29	2014.261	3979.764

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1779-05LX5 Acquired: 4/14/2025 17:14:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0119427	-.000005	.2177487	-.000106	-.002460	44.70288	.2046552
Stddev	.0035938	.001317	.0010840	.003443	.001510	.24070	.0011360
%RSD	30.09221	25254.07	.4978062	3237.543	61.37791	.5384470	.5550786
#1	.0160796	.000891	.2168084	.003005	-.004169	44.51997	.2034851
#2	.0101581	.000611	.2175035	.000480	-.001304	44.61310	.2047267
#3	.0095905	-.001518	.2189343	-.003805	-.001908	44.97557	.2057538

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0021490	-.001478	5.338921	.0466110	.0177996	.0503797	38.97434
Stddev	.0000319	.000041	.041206	.0002975	.0000829	.0004092	.09916
%RSD	1.484953	2.800651	.7718113	.6381866	.4658750	.8122333	.2544330
#1	.0021285	-.001440	5.291374	.0463624	.0178585	.0501931	38.92763
#2	.0021858	-.001474	5.361137	.0465301	.0177048	.0500969	38.90716
#3	.0021328	-.001522	5.364251	.0469406	.0178356	.0508489	39.08823

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4016676	5.686783	.0411896	-.001867	4.028658	.0656314	.1129956
Stddev	.0008750	.036345	.0001915	.000143	.008658	.0012565	.0000976
%RSD	.2178316	.6391138	.4648288	7.661566	.2149097	1.914402	.0863828
#1	.4006706	5.655900	.0413253	-.002029	4.036852	.0667708	.1128830
#2	.4020246	5.677616	.0409706	-.001757	4.029521	.0658394	.1130547
#3	.4023076	5.726835	.0412729	-.001815	4.019601	.0642839	.1130492

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.533579	-.038601	.0006440	.0048594	.4157560	1.621136	1.424686
Stddev	.024419	.000268	.0000838	.0005569	.0032718	.008584	.005063
%RSD	1.592271	.6935987	13.00931	11.46034	.7869488	.5294842	.3553627
#1	1.505488	-.038707	.0005509	.0046981	.4124344	1.617567	1.427611
#2	1.545518	-.038296	.0007133	.0044010	.4158580	1.614913	1.418840
#3	1.549731	-.038799	.0006678	.0054792	.4189756	1.630929	1.427607

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1779-05LX5 Acquired: 4/14/2025 17:14:30 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7394139	.0448593	.0411709
Stddev	.0065918	.0007080	.0000684
%RSD	.8914946	1.578186	.1661909
#1	.7467738	.0448517	.0411408
#2	.7340528	.0455710	.0411226
#3	.7374151	.0441551	.0412492

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2844.168	68920.31	13957.63	1894.879	4231.285
Stddev	3.199	155.59	88.10	7.976	.840
%RSD	.1124729	.2257552	.6311976	.4209131	.0198440
#1	2843.720	69090.05	14056.70	1902.740	4232.255
#2	2847.568	68886.42	13928.08	1895.105	4230.801
#3	2841.217	68784.46	13888.10	1886.793	4230.799

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCV04 Acquired: 4/14/2025 17:18:46 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.920990	4.960166	4.940568	4.953243	4.931211	9.705842	9.579208
Stddev	.013571	.014451	.004545	.004478	.013014	.015151	.042126
%RSD	.2757863	.2913328	.0919934	.0904086	.2639037	.1561069	.4397687
#1	4.922369	4.944891	4.944581	4.952171	4.930036	9.705537	9.578372
#2	4.906782	4.961985	4.935633	4.949397	4.918826	9.721144	9.621746
#3	4.933820	4.973620	4.941490	4.958159	4.944773	9.690845	9.537506

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2483045	2.480333	24.20714	1.001924	2.478494	1.247357	4.933402
Stddev	.0021015	.002557	.10071	.002818	.004538	.002958	.041354
%RSD	.8463572	.1030990	.4160528	.2812667	.1831075	.2371632	.8382422
#1	.2483525	2.481404	24.28109	1.000573	2.481110	1.245696	4.925812
#2	.2461793	2.477414	24.09244	1.005163	2.473253	1.245602	4.978025
#3	.2503816	2.482180	24.24790	1.000036	2.481117	1.250772	4.896368

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.408554	24.08819	2.474353	1.241500	25.88454	2.423715	2.445218
Stddev	.009240	.12295	.002584	.001830	.33682	.001818	.007660
%RSD	.3836144	.5104306	.1044318	.1473968	1.301240	.0750047	.3132515
#1	2.417434	24.08952	2.475979	1.240011	25.93089	2.425346	2.438127
#2	2.398992	23.96457	2.471373	1.243543	26.19578	2.421755	2.453341
#3	2.409236	24.21047	2.475707	1.240946	25.52694	2.424044	2.444185

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.97536	4.916645	4.986014	4.973954	4.818007	4.946407	4.997020
Stddev	.31659	.052959	.006791	.003163	.009512	.034956	.009300
%RSD	1.218817	1.077138	.1361995	.0635944	.1974307	.7066884	.1861149
#1	25.90550	4.934996	4.982004	4.970363	4.827175	4.918128	5.004338
#2	26.32105	4.856951	4.982182	4.975172	4.818662	4.985488	5.000167
#3	25.69953	4.957988	4.993854	4.976327	4.808184	4.935603	4.986555

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCV04 Acquired: 4/14/2025 17:18:46 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.930739	4.817941	4.880087
Stddev	.016303	.023883	.069687
%RSD	.3306499	.4957156	1.427987
#1	4.931831	4.832029	4.867377
#2	4.913917	4.831429	4.817630
#3	4.946469	4.790365	4.955254

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2680.516	63958.53	12777.59	1726.139	4023.068
Stddev	2.985	253.24	92.29	8.800	4.246
%RSD	.1113573	.3959369	.7222780	.5097799	.1055402
#1	2682.287	64024.69	12751.89	1728.800	4022.042
#2	2682.190	63678.78	12880.00	1716.317	4027.732
#3	2677.069	64172.12	12700.87	1733.302	4019.428

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCB04 Acquired: 4/14/2025 17:22:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0026295	-.000121	.0018166	-.001295	.0004517	-.000992	-.000207
Stddev	.0007858	.001535	.0013859	.000923	.0001349	.001370	.000733
%RSD	29.88383	1272.570	76.28776	71.33657	29.87467	138.1295	353.3587
#1	.0021474	.001556	.0030081	-.000583	.0004985	-.001094	.000612
#2	.0022047	-.000461	.0002957	-.000962	.0002995	-.002308	-.000432
#3	.0035362	-.001457	.0021461	-.002338	.0005569	.000426	-.000801

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000676	.0001701	-.007459	-.000068	.0001628	.0002954	.0027233
Stddev	.0000300	.0000789	.006423	.000150	.0001270	.0000700	.0024148
%RSD	44.34426	46.39001	86.10162	220.3498	78.03511	23.70737	88.67072
#1	.0001019	.0001210	-.000177	-.000047	.0000186	.0003196	.0041929
#2	.0000553	.0001283	-.012317	-.000227	.0002114	.0003501	.0040407
#3	.0000458	.0002611	-.009884	.000070	.0002583	.0002165	-.000064

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005461	.0079812	.0002177	-.000318	-.018047	.0011910	-.000285
Stddev	.0003202	.0037137	.0001774	.000201	.008100	.0009934	.000255
%RSD	58.62686	46.53036	81.49746	63.20160	44.88402	83.40203	89.39504
#1	.0002011	.0113503	.0000453	-.000131	-.018295	.0012479	-.000192
#2	.0006036	.0039992	.0002081	-.000294	-.026020	.0021548	-.000090
#3	.0008336	.0085941	.0003997	-.000531	-.009826	.0001705	-.000574

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.018695	.0051475	.0004108	.0005473	.0001750	.0132923	.0026192
Stddev	.007886	.0001272	.0001045	.0002797	.0005129	.0032937	.0005458
%RSD	42.18387	2.471176	25.43867	51.11141	293.1054	24.77918	20.84061
#1	-.027789	.0051165	.0005179	.0005477	.0002129	.0150382	.0031506
#2	-.013740	.0050387	.0004054	.0002673	.0006678	.0153454	.0026470
#3	-.014556	.0052874	.0003091	.0008267	-.000356	.0094932	.0020599

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCB04 Acquired: 4/14/2025 17:22:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002644	.0002089	.0003150
Stddev	.001600	.0010231	.0000294
%RSD	60.50533	489.8142	9.335057
#1	-.001657	-.000506	.0003385
#2	-.001786	-.000248	.0002820
#3	-.004490	.001381	.0003245

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2789.266	66930.56	13210.79	1808.085	4446.369
Stddev	1.704	154.74	42.75	3.641	4.483
%RSD	.0610887	.2311938	.3236041	.2013836	.1008299
#1	2789.342	66825.41	13172.20	1804.548	4442.493
#2	2787.526	67108.24	13256.74	1811.822	4451.279
#3	2790.931	66858.03	13203.42	1807.885	4445.334

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1779-05MS Acquired: 4/14/2025 17:27:18 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6970862	1.777190	1.868591	1.589419	.6565911	204.1748	1.111819
Stddev	.0037752	.017082	.001798	.003380	.0025607	1.4542	.003449
%RSD	.5415718	.9611710	.0962461	.2126600	.3899985	.7122085	.3101723
#1	.6939809	1.771005	1.870595	1.585516	.6537262	204.8709	1.108743
#2	.6959892	1.764061	1.868062	1.591403	.6573903	205.1500	1.111168
#3	.7012884	1.796502	1.867117	1.591338	.6586569	202.5034	1.115547

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1576247	.1855184	23.46650	.5239198	.2716600	.4393148	184.4475
Stddev	.0008484	.0001472	.02912	.0031826	.0002183	.0010330	1.4127
%RSD	.5382557	.0793646	.1241128	.6074560	.0803451	.2351334	.7658875
#1	.1570964	.1855874	23.44078	.5217464	.2716026	.4381514	183.9624
#2	.1586033	.1853494	23.49813	.5224402	.2714762	.4401244	183.3413
#3	.1571744	.1856185	23.46060	.5275728	.2719013	.4396686	186.0388

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.914050	26.68596	.6545166	.0567658	23.08111	.5283497	.6664047
Stddev	.003624	.13895	.0004691	.0005338	.25545	.0007583	.0018761
%RSD	.1893256	.5206960	.0716734	.9403415	1.106730	.1435243	.2815265
#1	1.909880	26.61542	.6545442	.0564380	23.05174	.5286604	.6658795
#2	1.915830	26.84603	.6540343	.0564777	22.84162	.5289034	.6648473
#3	1.916439	26.59642	.6549714	.0573818	23.34997	.5274854	.6684875

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.57608	.0832254	.3441199	.6788694	2.068479	9.598062	12.07117
Stddev	.15489	.0037244	.0008676	.0022399	.002751	.062414	.03502
%RSD	.9344149	4.475017	.2521066	.3299504	.1330132	.6502771	.2900949
#1	16.55537	.0805463	.3434969	.6805826	2.065844	9.605101	12.04973
#2	16.43259	.0816515	.3437520	.6763347	2.071334	9.532427	12.05220
#3	16.74028	.0874783	.3451107	.6796909	2.068259	9.656659	12.11158

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1779-05MS Acquired: 4/14/2025 17:27:18 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.483711	.3777844	.3478066
Stddev	.021280	.0011166	.0005686
%RSD	.6108478	.2955729	.1634779
#1	3.471332	.3775173	.3472814
#2	3.471518	.3768255	.3477281
#3	3.508283	.3790103	.3484104

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3048.767	73777.42	15761.63	2002.032	3948.963
Stddev	3.213	476.58	31.73	11.879	5.962
%RSD	.1053828	.6459706	.2013406	.5933485	.1509675
#1	3049.756	73849.98	15781.25	2003.043	3948.998
#2	3051.369	74213.55	15725.02	2013.374	3954.907
#3	3045.176	73268.71	15778.62	1989.680	3942.984

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1779-05MSD Acquired: 4/14/2025 17:31:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6924295	1.772297	1.851103	1.572655	.6510839	202.2443	1.116811
Stddev	.0047880	.007317	.002678	.005031	.0038789	1.1345	.004921
%RSD	.6914772	.4128554	.1446835	.3198799	.5957526	.5609781	.4406458
#1	.6895595	1.766992	1.850434	1.570644	.6537612	201.0801	1.121457
#2	.6897723	1.769255	1.848822	1.568941	.6528547	202.3060	1.117321
#3	.6979569	1.780645	1.854052	1.578380	.6466356	203.3467	1.111655

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1608727	.1846561	23.54524	.5233030	.2706752	.4358347	183.7501
Stddev	.0004025	.0004277	.02491	.0034747	.0006887	.0009497	1.3960
%RSD	.2501687	.2316311	.1057970	.6639926	.2544463	.2179145	.7597449
#1	.1608835	.1842821	23.56644	.5209289	.2704917	.4353462	183.1153
#2	.1612697	.1851224	23.55147	.5216890	.2700969	.4352287	182.7842
#3	.1604650	.1845637	23.51781	.5272912	.2714372	.4369293	185.3507

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.935720	26.81233	.6509402	.0571371	23.06061	.5306999	.6668853
Stddev	.002824	.05938	.0015706	.0002630	.14684	.0015172	.0029524
%RSD	.1459009	.2214704	.2412857	.4602512	.6367388	.2858801	.4427190
#1	1.936673	26.74399	.6491405	.0569893	23.03118	.5289916	.6638561
#2	1.937944	26.84159	.6516465	.0569812	22.93071	.5312177	.6670456
#3	1.932542	26.85139	.6520338	.0574407	23.21992	.5318904	.6697544

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.49505	.0777577	.3413773	.6691907	2.075935	9.553636	11.96198
Stddev	.11055	.0052737	.0002811	.0018917	.006026	.091033	.01572
%RSD	.6702045	6.782155	.0823584	.2826834	.2902903	.9528601	.1314400
#1	16.44930	.0758793	.3413490	.6671686	2.080986	9.505183	11.94720
#2	16.41471	.0736804	.3411114	.6694862	2.077555	9.497077	11.96023
#3	16.62113	.0837134	.3416716	.6709172	2.069264	9.658647	11.97850

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1779-05MSD Acquired: 4/14/2025 17:31:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.433298	.3807644	.3495240
Stddev	.005574	.0015628	.0010518
%RSD	.1623613	.4104267	.3009354
#1	3.426865	.3814410	.3504843
#2	3.436325	.3818748	.3496879
#3	3.436704	.3789773	.3483999

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3068.517	73516.71	15496.26	2020.533	3976.657
Stddev	2.158	574.35	40.35	17.024	4.929
%RSD	.0703110	.7812471	.2604130	.8425732	.1239426
#1	3070.327	73977.74	15519.93	2039.722	3980.917
#2	3069.095	73699.06	15449.66	2014.635	3977.795
#3	3066.130	72873.32	15519.18	2007.242	3971.259

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1779-05A Acquired: 4/14/2025 17:35:37 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6984176	1.804090	1.872730	1.591420	.6419573	205.7501	1.071232
Stddev	.0043593	.013408	.008796	.011995	.0017077	1.2533	.001597
%RSD	.6241654	.7431959	.4697038	.7537445	.2660203	.6091406	.1490692
#1	.6934220	1.806348	1.864851	1.583233	.6424418	206.3033	1.069476
#2	.7003803	1.789697	1.871120	1.585838	.6400597	206.6315	1.072598
#3	.7014506	1.816227	1.882221	1.605189	.6433705	204.3153	1.071620

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1805649	.1900652	23.33979	.5245808	.2727991	.4457812	166.2514
Stddev	.0008663	.0003835	.09005	.0035327	.0007031	.0011609	.3824
%RSD	.4797470	.2017754	.3858325	.6734328	.2577219	.2604114	.2299886
#1	.1796298	.1898714	23.28317	.5235754	.2726635	.4457654	166.5471
#2	.1813399	.1898173	23.44364	.5285072	.2721737	.4446283	166.3876
#3	.1807251	.1905069	23.29257	.5216598	.2735601	.4469499	165.8196

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.926853	27.04163	.6571932	.0548881	20.09945	.5294517	.6706243
Stddev	.004733	.17541	.0006231	.0004149	.09088	.0032137	.0009368
%RSD	.2456542	.6486631	.0948073	.7559357	.4521750	.6069935	.1396969
#1	1.921428	26.91758	.6569231	.0548047	20.18063	.5258394	.6698118
#2	1.928991	27.24232	.6567507	.0553384	20.00126	.5305216	.6716491
#3	1.930140	26.96500	.6579057	.0545213	20.11648	.5319940	.6704121

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	14.78901	.0014239	.3365001	.6663029	2.057495	8.933615	12.26286
Stddev	.03079	.0048565	.0012071	.0021284	.006939	.013673	.06402
%RSD	.2081641	341.0723	.3587107	.3194313	.3372726	.1530469	.5220624
#1	14.82411	.0069987	.3355494	.6686989	2.050810	8.944739	12.21971
#2	14.76661	-.000838	.3360927	.6655784	2.064664	8.937754	12.23245
#3	14.77630	-.001890	.3378581	.6646313	2.057011	8.918351	12.33641

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1779-05A Acquired: 4/14/2025 17:35:37 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.497177	.3736327	.3389489
Stddev	.018356	.0003831	.0007008
%RSD	.5248933	.1025298	.2067664
#1	3.476049	.3736951	.3381460
#2	3.506263	.3732222	.3392627
#3	3.509217	.3739808	.3394380

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3044.344	73257.88	13927.79	2013.323	3943.377
Stddev	4.190	142.46	64.54	6.263	5.688
%RSD	.1376467	.1944659	.4633631	.3110771	.1442363
#1	3049.177	73222.36	13982.79	2013.594	3948.812
#2	3042.113	73136.54	13856.75	2006.929	3943.851
#3	3041.741	73414.74	13943.84	2019.446	3937.466

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1781-01 Acquired: 4/14/2025 17:39:44 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1160743	.0300095	.2073279	.0029180	-.019106	71.23554	.2593553
Stddev	.0020277	.0011686	.0006555	.0020615	.001790	.21230	.0006235
%RSD	1.746905	3.894063	.3161783	70.64765	9.366916	.2980229	.2403952
#1	.1149076	.0313422	.2078032	.0008454	-.017277	71.23522	.2588040
#2	.1184157	.0291602	.2076004	.0029404	-.019186	71.44801	.2600320
#3	.1148997	.0295260	.2065801	.0049681	-.020854	71.02341	.2592300

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0108430	-.000588	5.956141	.2757917	.0226185	.3458565	380.0570
Stddev	.0001072	.000389	.030301	.0011247	.0002438	.0008087	1.2441
%RSD	.9885376	66.15695	.5087415	.4078202	1.078052	.2338152	.3273410
#1	.0108718	-.000467	5.971249	.2765021	.0225030	.3460089	379.2348
#2	.0109329	-.001024	5.975918	.2763780	.0224538	.3449825	381.4882
#3	.0107244	-.000275	5.921256	.2744949	.0228986	.3465781	379.4478

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1317863	2.424067	.0297437	-.017372	3.035554	.2872882	.2675266
Stddev	.0009371	.018986	.0003362	.000182	.013688	.0011066	.0014327
%RSD	.7111095	.7832112	1.130254	1.047099	.4509203	.3851871	.5355418
#1	.1327475	2.403929	.0295699	-.017534	3.044151	.2885338	.2690436
#2	.1308753	2.441639	.0295300	-.017407	3.042741	.2869122	.2673398
#3	.1317360	2.426633	.0301312	-.017175	3.019769	.2864186	.2661965

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.308196	-.458040	-.000758	.0115539	.2460064	2.452050	.5093109
Stddev	.021106	.003235	.000539	.0004106	.0022791	.022270	.0046993
%RSD	.3976064	.7062886	71.03556	3.554019	.9264521	.9082108	.9226793
#1	5.294410	-.461617	-.001373	.0111097	.2461725	2.440922	.5146178
#2	5.332494	-.455321	-.000370	.0119195	.2481980	2.477691	.5076378
#3	5.297685	-.457181	-.000531	.0116325	.2436488	2.437538	.5056771

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1781-01 Acquired: 4/14/2025 17:39:44 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.653063	.1942699	.0600018
Stddev	.003954	.0015728	.0003553
%RSD	.1490255	.8096181	.5921791
#1	2.651470	.1941669	.0600645
#2	2.650154	.1958917	.0603216
#3	2.657564	.1927511	.0596193

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3251.825	79062.95	15813.03	2177.248	4083.989
Stddev	3.617	234.39	60.81	10.046	8.276
%RSD	.1112452	.2964596	.3845447	.4614108	.2026386
#1	3255.961	78989.15	15758.57	2177.741	4077.942
#2	3249.250	78874.34	15801.88	2166.964	4080.604
#3	3250.264	79325.36	15878.64	2187.038	4093.420

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1781-05 Acquired: 4/14/2025 17:43:54 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0232618	.0028316	.0671987	.0027033	-.002461	16.01387	.0415333
Stddev	.0004614	.0022029	.0014185	.0032971	.001429	.02098	.0001356
%RSD	1.983641	77.79845	2.110881	121.9629	58.05755	.1310318	.3265216
#1	.0231881	.0047247	.0670977	.0004593	-.002588	15.99464	.0413776
#2	.0237556	.0004136	.0686649	.0011619	-.003822	16.01071	.0416258
#3	.0228416	.0033564	.0658334	.0064887	-.000973	16.03625	.0415965

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0030953	-.003008	2.028263	.0900941	.0121125	.0866663	95.38931
Stddev	.0000732	.000192	.005897	.0002001	.0001520	.0007576	.38044
%RSD	2.365118	6.398249	.2907409	.2220675	1.255227	.8741604	.3988274
#1	.0031756	-.002974	2.022295	.0898852	.0120246	.0875075	95.29793
#2	.0030323	-.003216	2.028409	.0902840	.0120249	.0860378	95.80711
#3	.0030779	-.002836	2.034086	.0901132	.0122881	.0864534	95.06288

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1615752	1.632581	.0225310	-.004399	.3328784	.1400304	.1523040
Stddev	.0007991	.024494	.0004661	.000107	.0011828	.0014060	.0011796
%RSD	.4945488	1.500304	2.068557	2.440411	.3553111	1.004036	.7745304
#1	.1606543	1.631800	.0222715	-.004375	.3315550	.1394006	.1531651
#2	.1620852	1.608488	.0230691	-.004517	.3338320	.1390495	.1527876
#3	.1619862	1.657456	.0222524	-.004306	.3332483	.1416412	.1509595

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6306807	-.123907	.0008896	.0018175	.6808325	2.726789	1.202069
Stddev	.0111657	.002642	.0001602	.0007933	.0014909	.022565	.004416
%RSD	1.770413	2.132605	18.01256	43.64729	.2189807	.8275296	.3673959
#1	.6204549	-.123968	.0007752	.0018935	.6795095	2.717004	1.207165
#2	.6425941	-.121234	.0010727	.0025701	.6824479	2.752595	1.199704
#3	.6289933	-.126518	.0008209	.0009889	.6805401	2.710768	1.199340

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1781-05 Acquired: 4/14/2025 17:43:54 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1374152	.0449111	.0107743
Stddev	.0017271	.0006527	.0000783
%RSD	1.256836	1.453309	.7270480
#1	.1394092	.0442139	.0107902
#2	.1363921	.0455076	.0106892
#3	.1364443	.0450116	.0108434

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2843.628	68906.16	13418.65	1885.793	4354.998
Stddev	5.457	127.86	61.19	13.549	8.872
%RSD	.1919016	.1855626	.4560020	.7185018	.2037191
#1	2840.654	68813.34	13390.72	1877.962	4349.211
#2	2849.926	68853.14	13488.82	1877.977	4365.212
#3	2840.303	69052.01	13376.40	1901.438	4350.570

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1781-09 Acquired: 4/14/2025 17:48:09 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0376292	.0032776	.1022142	.0050601	-.004575	30.92623	.1171516
Stddev	.0008096	.0015614	.0020423	.0008597	.002120	.05026	.0012977
%RSD	2.151435	47.63770	1.998087	16.98955	46.32776	.1625058	1.107685
#1	.0380922	.0049719	.1024249	.0040956	-.002704	30.92659	.1168736
#2	.0366944	.0018966	.1000746	.0057458	-.006877	30.87580	.1185657
#3	.0381010	.0029643	.1041430	.0053388	-.004144	30.97631	.1160154

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0043813	-.005357	2.800578	.1729528	.0248434	.1069382	152.0739
Stddev	.0000962	.000048	.007785	.0006180	.0001632	.0000162	.4299
%RSD	2.195824	.8957261	.2779660	.3572913	.6570941	.0151347	.2826804
#1	.0042902	-.005302	2.795402	.1731613	.0246592	.1069500	151.5775
#2	.0043717	-.005374	2.809531	.1722576	.0249010	.1069448	152.3254
#3	.0044819	-.005394	2.796803	.1734395	.0249701	.1069197	152.3187

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3153295	1.622921	.0285649	-.004307	.9073239	.3262006	.1447582
Stddev	.0003440	.004726	.0001071	.000351	.0158275	.0001900	.0002191
%RSD	.1090812	.2912295	.3749690	8.137997	1.744412	.0582376	.1513850
#1	.3149352	1.628325	.0286600	-.004109	.9135757	.3259824	.1449554
#2	.3154857	1.620881	.0284489	-.004100	.8893254	.3262902	.1445223
#3	.3155677	1.619557	.0285859	-.004712	.9190706	.3263293	.1447969

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.024260	-.129234	.0037434	.0044415	.7864612	5.186041	1.540248
Stddev	.007220	.000926	.0001503	.0002546	.0007046	.021816	.006456
%RSD	.3566832	.7167431	4.015866	5.732346	.0895954	.4206608	.4191734
#1	2.022726	-.129382	.0035803	.0044958	.7871846	5.161014	1.547602
#2	2.017930	-.128242	.0038765	.0046646	.7857769	5.201033	1.535509
#3	2.032124	-.130077	.0037734	.0041641	.7864222	5.196077	1.537633

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1781-09 Acquired: 4/14/2025 17:48:09 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.009400	.0782555	.0279677
Stddev	.006844	.0006487	.0000351
%RSD	.6780365	.8290063	.1256588
#1	1.013100	.0787580	.0279272
#2	1.013599	.0784855	.0279853
#3	1.001503	.0775231	.0279906

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2896.348	70789.45	14794.25	1905.602	4218.680
Stddev	6.375	104.68	37.81	9.266	5.400
%RSD	.2201035	.1478816	.2555693	.4862335	.1280133
#1	2901.918	70793.94	14778.23	1907.656	4213.050
#2	2889.395	70891.82	14837.44	1913.668	4219.175
#3	2897.730	70682.59	14767.10	1895.482	4223.816

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167567BL Acquired: 4/14/2025 17:52:21 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006128	-.000795	.0008128	-.001426	.0012979	.0031289	-.000284
Stddev	.0022127	.001126	.0007609	.003176	.0008568	.0031183	.000615
%RSD	361.0825	141.5162	93.61560	222.7260	66.01610	99.66125	216.5942
#1	.0025919	.000318	.0016797	-.000045	.0011420	.0065068	-.000246
#2	.0010228	-.001933	.0002552	.000826	.0005297	.0003600	-.000916
#3	-.001776	-.000771	.0005036	-.005059	.0022220	.0025199	.000311

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000016	-.000030	-.002766	-.000136	-.000027	.0062404	.0048343
Stddev	.000025	.000065	.002632	.000090	.000173	.0005728	.0031070
%RSD	155.9577	213.7102	95.17934	66.39622	647.5807	9.178136	64.27081
#1	-.000034	-.000104	.000222	-.000164	-.000205	.0067534	.0041731
#2	.000013	-.000006	-.003776	-.000208	-.000016	.0056224	.0082187
#3	-.000027	.000019	-.004743	-.000035	.000141	.0063453	.0021111

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002309	.0001100	.0007074	-.000186	-.020243	.0001051	.0001231
Stddev	.0004770	.0057205	.0002275	.000177	.004816	.0007144	.0002540
%RSD	206.5633	5202.883	32.15580	95.19255	23.79256	679.4283	206.2456
#1	.0003289	.0066564	.0007430	-.000196	-.022541	-.000179	-.000135
#2	-.000287	-.002401	.0004642	-.000357	-.014708	-.000423	.000373
#3	.000651	-.003926	.0009149	-.000004	-.023481	.000918	.000131

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.037249	-.001709	-.000379	-.000439	-.000771	.0082188	.0023317
Stddev	.031571	.000419	.000063	.000830	.000424	.0027500	.0027950
%RSD	84.75554	24.51476	16.58795	189.0337	54.96323	33.46000	119.8699
#1	-.073684	-.002193	-.000422	.000455	-.000808	.0051563	.0052315
#2	-.020074	-.001465	-.000307	-.001186	-.000331	.0104769	-.000345
#3	-.017990	-.001471	-.000408	-.000586	-.001176	.0090232	.002109

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167567BL Acquired: 4/14/2025 17:52:21 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.003120	-.000379	.0000173
Stddev	.003222	.000358	.0000456
%RSD	103.2538	94.36737	263.1456
#1	-.006734	-.000452	-.000019
#2	-.002080	-.000695	.000002
#3	-.000547	.000009	.000068

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2856.039	69298.20	14105.44	1850.132	4612.057
Stddev	3.870	162.13	52.83	4.122	3.648
%RSD	.1355060	.2339529	.3745636	.2228065	.0790959
#1	2856.923	69485.39	14114.11	1852.390	4608.625
#2	2851.804	69206.26	14153.40	1845.374	4611.657
#3	2859.392	69202.94	14048.81	1852.632	4615.888

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167567BS Acquired: 4/14/2025 17:56:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8011289	2.050231	.9990937	2.017653	.8097910	1.895105
Stddev	.0037721	.009483	.0013354	.005775	.0037397	.002376
%RSD	.4708482	.4625101	.1336630	.2862137	.4618090	.1253723
#1	.7994718	2.049429	.9984671	2.015193	.8061237	1.894909
#2	.7984691	2.041175	.9981868	2.013515	.8135991	1.892833
#3	.8054460	2.060089	1.000627	2.024250	.8096501	1.897573

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1931598	.1904702	.2024777	1.007211	.3988164	.1965210
Stddev	.0012323	.0007112	.0007047	.003214	.0005990	.0008925
%RSD	.6379618	.3733845	.3480505	.3191427	.1501926	.4541685
#1	.1922881	.1898219	.2017452	1.005696	.3991861	.1955419
#2	.1926216	.1912309	.2025372	1.010903	.3991378	.1967317
#3	.1945696	.1903579	.2031509	1.005034	.3981253	.1972893

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3079142	3.067182	.1981752	1.885200	.4923222	.0731426
Stddev	.0001143	.011768	.0004816	.004835	.0009421	.0004994
%RSD	.0371273	.3836906	.2430197	.2564775	.1913659	.6827576
#1	.3079847	3.079963	.1983136	1.888013	.4914663	.0733192
#2	.3079755	3.064789	.1985725	1.887970	.4921686	.0725789
#3	.3077823	3.056794	.1976396	1.879617	.4933317	.0735297

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.851609	.2894795	.1981865	9.789940	.2759728	.4102154
Stddev	.006625	.0017998	.0010145	.009825	.0004722	.0002508
%RSD	.2323277	.6217396	.5118959	.1003566	.1711131	.0611399
#1	2.849030	.2878577	.1992738	9.790258	.2757635	.4100360
#2	2.846661	.2891648	.1980204	9.799602	.2765135	.4101083
#3	2.859136	.2914158	.1972652	9.779960	.2756414	.4105020

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167567BS Acquired: 4/14/2025 17:56:41 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6971908	.1960911	F .7025236	5.863297	F -.005166	.2026153
Stddev	.0021246	.0001967	.0023811	.014891	.000565	.0010403
%RSD	.3047371	.1003241	.3389325	.2539646	10.94433	.5134303
#1	.6967367	.1963123	.7000623	5.855910	-.004588	.2035358
#2	.6953300	.1960252	.7026929	5.853543	-.005718	.2028234
#3	.6995057	.1959358	.7048154	5.880436	-.005192	.2014867

Elem	Sr4077
Units	ppm
Avg	.2019851
Stddev	.0000850
%RSD	.0420727
#1	.2018881
#2	.2020466
#3	.2020205

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2808.672	67423.21	13840.40	1865.369	4390.104
Stddev	4.220	104.46	24.27	9.381	2.882
%RSD	.1502537	.1549294	.1753725	.5028944	.0656588
#1	2803.939	67329.43	13837.97	1854.893	4390.578
#2	2810.032	67535.79	13817.44	1872.992	4392.720
#3	2812.044	67404.39	13865.80	1868.222	4387.014

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167482BL Acquired: 4/14/2025 18:00:44 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000142	-.001113	.0001563	-.001438	.0004857	.0048740	.0001166
Stddev	.001796	.000313	.0005490	.002706	.0013633	.0071777	.0012614
%RSD	1267.699	28.14021	351.3787	188.1678	280.7128	147.2647	1081.680
#1	.001523	-.001427	.0007518	-.002830	.0016917	.0012834	.0014695
#2	.000097	-.001110	.0000468	-.003166	-.000994	.0131386	-.001027
#3	-.002045	-.000801	-.000330	.001681	.000759	.0002002	-.000092

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000028	-.000027	-.010804	-.000143	.0000798	.0002060	.0016201
Stddev	.000017	.000024	.006989	.000211	.0000037	.0006318	.0019699
%RSD	59.64297	91.87102	64.68680	147.8206	4.669788	306.6239	121.5880
#1	-.000045	-.000055	-.012621	-.000386	.0000766	-.000442	-.000342
#2	-.000029	-.000015	-.016706	-.000023	.0000789	.000239	.003597
#3	-.000011	-.000010	-.003086	-.000019	.0000839	.000821	.001605

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004176	.0101358	-.000386	-.000152	-.013462	-.000108	-.000447
Stddev	.0002770	.0069774	.000607	.000489	.003625	.000575	.000261
%RSD	66.32538	68.83890	157.3385	320.7667	26.92825	532.2116	58.45629
#1	.0001723	.0150553	-.000599	.000411	-.010517	-.000405	-.000446
#2	.0007180	.0021504	-.000858	-.000463	-.012358	-.000474	-.000186
#3	.0003627	.0132018	.000299	-.000405	-.017511	.000554	-.000708

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0011095	-.001282	-.000420	-.000175	-.000382	.0034758	.0007310
Stddev	.0228033	.000570	.000137	.000588	.000534	.0065366	.0016199
%RSD	2055.280	44.49392	32.59888	336.0584	139.5842	188.0574	221.5984
#1	-.001250	-.001641	-.000308	-.000149	-.000782	.0034436	.0003523
#2	.025001	-.000624	-.000573	-.000776	-.000588	.0100285	-.000666
#3	-.020422	-.001581	-.000380	.000400	.000224	-.003045	.002507

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167482BL Acquired: 4/14/2025 18:00:44 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0004091	-.000562	-.000056
Stddev	.0021665	.001188	.000071
%RSD	529.5281	211.2704	127.1029
#1	-.000088	-.001008	.000024
#2	-.001466	-.001464	-.000078
#3	.002781	.000784	-.000113

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2835.162	68217.02	12657.84	1900.611	4514.448
Stddev	1.662	219.62	32.24	6.216	9.643
%RSD	.0586377	.3219451	.2546711	.3270769	.2135959
#1	2835.884	67963.84	12674.83	1894.858	4521.145
#2	2833.260	68356.11	12678.04	1899.771	4518.802
#3	2836.341	68331.13	12620.67	1907.205	4503.395

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167482BS Acquired: 4/14/2025 18:12:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7492761	1.907872	.9213846	1.881776	.7515473	1.721706
Stddev	.0067418	.008080	.0059220	.000415	.0047405	.007314
%RSD	.8997820	.4234918	.6427292	.0220562	.6307627	.4247900
#1	.7505061	1.916399	.9183280	1.881912	.7461467	1.723592
#2	.7420039	1.906889	.9176154	1.881310	.7534753	1.713635
#3	.7553183	1.900330	.9282103	1.882106	.7550201	1.727893

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1764244	.1709897	.1871711	.9006899	.3659587	.1808740
Stddev	.0011259	.0008420	.0005915	.0039118	.0009276	.0004583
%RSD	.6381898	.4924284	.3160326	.4343150	.2534605	.2533671
#1	.1776032	.1719492	.1865640	.9049352	.3652664	.1808882
#2	.1753601	.1703741	.1872036	.8972310	.3670126	.1804088
#3	.1763100	.1706458	.1877457	.8999036	.3655971	.1813250

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2849515	2.819140	.1790917	1.714660	.4538674	.0674023
Stddev	.0008652	.011830	.0009709	.016426	.0017096	.0003714
%RSD	.3036264	.4196279	.5421033	.9579871	.3766709	.5509395
#1	.2853992	2.816406	.1790094	1.713552	.4522254	.0677125
#2	.2839542	2.808917	.1781646	1.731612	.4537394	.0675035
#3	.2855010	2.832098	.1801011	1.698815	.4556374	.0669908

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.618559	.2649775	.1826942	8.982324	.2474965	.3774112
Stddev	.012218	.0001524	.0010715	.007081	.0018333	.0010490
%RSD	.4666009	.0575005	.5865105	.0788292	.7407274	.2779355
#1	2.604997	.2651515	.1828096	8.981205	.2494292	.3778065
#2	2.621972	.2648681	.1815697	8.975868	.2457822	.3762221
#3	2.628708	.2649128	.1837034	8.989897	.2472780	.3782051

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167482BS Acquired: 4/14/2025 18:12:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6445381	.1774623	F .6403500	5.474642	F -.008173	.1834610
Stddev	.0034616	.0005257	.0075357	.012675	.001458	.0011771
%RSD	.5370608	.2962371	1.176812	.2315294	17.83478	.6415892
#1	.6421943	.1773490	.6362703	5.460367	-.007726	.1848188
#2	.6429060	.1770025	.6357338	5.478982	-.006991	.1827289
#3	.6485140	.1780355	.6490460	5.484578	-.009801	.1828355

Elem	Sr4077
Units	ppm
Avg	.1836178
Stddev	.0000280
%RSD	.0152380
#1	.1836342
#2	.1835855
#3	.1836338

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2764.453	67442.83	14048.68	1842.415	4323.577
Stddev	1.961	31.01	75.34	6.321	4.336
%RSD	.0709528	.0459849	.5362944	.3430706	.1002944
#1	2766.398	67457.68	13962.08	1837.558	4327.403
#2	2762.475	67463.63	14099.16	1849.562	4324.462
#3	2764.486	67407.18	14084.81	1840.126	4318.867

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCV05 Acquired: 4/14/2025 18:16:45 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.864772	4.914821	4.915565	4.905767	4.909998	9.697176	9.569751
Stddev	.003837	.015369	.006833	.004385	.004251	.024199	.064656
%RSD	.0788659	.3127050	.1390128	.0893759	.0865689	.2495520	.6756318
#1	4.860415	4.903093	4.907675	4.910822	4.905152	9.687563	9.581576
#2	4.866257	4.909149	4.919459	4.902983	4.913094	9.724705	9.499999
#3	4.867644	4.932219	4.919562	4.903497	4.911747	9.679260	9.627679

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2556805	2.465797	24.25488	.9858008	2.468968	1.239911	4.765951
Stddev	.0008721	.005201	.05104	.0029379	.006860	.003045	.026833
%RSD	.3410873	.2109272	.2104242	.2980173	.2778508	.2455577	.5630115
#1	.2566506	2.460345	24.19998	.9881681	2.462412	1.237524	4.780944
#2	.2549614	2.466343	24.30089	.9867215	2.468395	1.238869	4.781937
#3	.2554296	2.470704	24.26376	.9825129	2.476096	1.243340	4.734973

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.429754	24.24687	2.459210	1.231649	23.42835	2.435418	2.455876
Stddev	.006740	.03954	.005678	.002042	.13186	.006119	.003439
%RSD	.2773816	.1630539	.2308677	.1657566	.5628266	.2512674	.1400252
#1	2.435939	24.23305	2.455553	1.233198	23.44455	2.436394	2.456612
#2	2.430754	24.29145	2.456327	1.232413	23.55137	2.440990	2.452129
#3	2.422571	24.21609	2.465751	1.229335	23.28914	2.428869	2.458888

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.62174	5.112362	4.951649	4.937896	4.836136	4.730812	4.913697
Stddev	.16168	.013466	.010279	.009881	.012143	.020460	.010261
%RSD	.6844537	.2634023	.2075948	.2001115	.2510958	.4324933	.2088150
#1	23.65025	5.125435	4.950118	4.926644	4.841720	4.708896	4.903377
#2	23.76727	5.098535	4.942221	4.941884	4.844483	4.749413	4.923897
#3	23.44770	5.113116	4.962608	4.945161	4.822205	4.734127	4.913817

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCV05 Acquired: 4/14/2025 18:16:45 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.894461	4.849522	4.865926
Stddev	.007986	.007582	.024561
%RSD	.1631694	.1563417	.5047500
#1	4.885577	4.850316	4.837735
#2	4.901045	4.856676	4.882700
#3	4.896760	4.841575	4.877344

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2718.395	64869.60	12391.47	1761.521	4070.670
Stddev	5.459	240.21	23.05	5.305	6.306
%RSD	.2008065	.3702897	.1860291	.3011653	.1549159
#1	2717.025	65016.59	12417.88	1767.410	4075.497
#2	2724.408	64592.40	12375.38	1757.115	4072.978
#3	2713.752	64999.81	12381.14	1760.037	4063.535

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCB05 Acquired: 4/14/2025 18:20:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0016676	.0002459	-.001034	-.001155	.0003601	-.000769	.0002335
Stddev	.0009542	.0010016	.000698	.001014	.0020276	.003578	.0007033
%RSD	57.21939	407.2436	67.50875	87.82028	563.1388	465.0765	301.2506
#1	.0016428	-.000498	-.001835	-.002287	-.001838	.000276	-.000566
#2	.0026340	.001385	-.000552	-.000848	.000762	.002170	.000758
#3	.0007261	-.000149	-.000716	-.000329	.002157	-.004754	.000508

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000131	-.000028	-.007488	.0002037	.0000701	.0001546	.0006599
Stddev	.0000690	.000063	.005846	.0001525	.0000553	.0000982	.0014004
%RSD	528.1886	222.8569	78.07253	74.89518	78.79560	63.52014	212.2159
#1	-.000067	.000014	-.005829	.0002989	.0001297	.0000666	.0019191
#2	.000055	.000002	-.013985	.0002843	.0000601	.0002605	-.000848
#3	.000051	-.000101	-.002651	.0000277	.0000206	.0001366	.000909

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006038	-.002284	-.000104	-.000188	-.012036	.0011443	-.000151
Stddev	.0001172	.018638	.000503	.000109	.014670	.0023336	.000159
%RSD	19.40503	816.1631	484.5468	58.01910	121.8823	203.9361	105.2794
#1	.0006392	-.000182	-.000171	-.000095	-.011730	-.001478	-.000177
#2	.0006992	.015215	.000429	-.000308	-.026858	.002994	.000019
#3	.0004730	-.021883	-.000571	-.000161	.002478	.001917	-.000296

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.030449	.0045736	-.000128	-.000487	-.000563	.0161672	.0030858
Stddev	.012268	.0001191	.000171	.000607	.000529	.0079909	.0004215
%RSD	40.29014	2.603344	133.1906	124.6634	93.95149	49.42663	13.65768
#1	-.039732	.0044603	.000046	-.000334	-.000013	.0169730	.0028062
#2	-.035076	.0046977	-.000136	.000029	-.000608	.0237247	.0035706
#3	-.016541	.0045628	-.000295	-.001155	-.001067	.0078039	.0028807

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCB05 Acquired: 4/14/2025 18:20:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0010768	-.000974	-.000065
Stddev	.0012486	.000148	.000062
%RSD	115.9546	15.15998	96.57314
#1	.0018537	-.001061	.000004
#2	-.000363	-.001056	-.000080
#3	.001740	-.000803	-.000118

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2864.257	68281.01	13504.33	1881.861	4570.267
Stddev	4.670	107.37	56.02	4.232	7.494
%RSD	.1630296	.1572409	.4147976	.2248679	.1639745
#1	2866.735	68304.99	13488.40	1885.537	4576.134
#2	2858.870	68163.68	13458.00	1877.235	4561.825
#3	2867.164	68374.36	13566.58	1882.811	4572.842

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167530BL Acquired: 4/14/2025 18:25:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006381	-.000252	.0020164	-.002154	-.000800	-.001627	.0005366
Stddev	.0018902	.001527	.0007542	.002202	.001199	.002672	.0010999
%RSD	296.1966	606.5297	37.40583	102.2094	149.9072	164.2126	204.9730
#1	.0006639	-.000201	.0012623	-.000022	-.001702	-.003720	.0018066
#2	-.001265	.001249	.0027708	-.004419	-.001258	-.002545	-.000089
#3	.002515	-.001804	.0020161	-.002020	.000560	.001383	-.000108

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000152	-.000066	-.005095	.0001037	-.000107	.0000994	-.001111
Stddev	.0000419	.000055	.006141	.0003620	.000114	.0003235	.001560
%RSD	274.8723	83.46603	120.5182	349.0636	106.8159	325.6234	140.3804
#1	-.000022	-.000128	.001980	.0003533	-.000228	.0004181	.000688
#2	.000008	-.000044	-.008232	-.000311	-.000001	-.000229	-.001945
#3	.000060	-.000025	-.009034	.000269	-.000091	.000109	-.002077

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003580	.0045169	-.000197	-.000640	-.026427	.0001291	-.000578
Stddev	.0001127	.0063190	.000061	.000277	.008834	.0006524	.000317
%RSD	31.49360	139.8960	30.65295	43.28101	33.42991	505.2174	54.89566
#1	.0004497	.0082092	-.000134	-.000348	-.033193	-.000436	-.000938
#2	.0003922	-.002779	-.000204	-.000898	-.016432	-.000020	-.000453
#3	.0002321	.008121	-.000254	-.000673	-.029655	.000843	-.000342

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.059374	.0009473	-.000200	-.000874	-.000520	.0026381	.0038376
Stddev	.012875	.0006354	.000178	.000553	.000430	.0057417	.0009404
%RSD	21.68436	67.07287	89.23097	63.31937	82.79102	217.6463	24.50517
#1	-.067369	.0016776	-.000018	-.000947	-.000991	-.002719	.0035103
#2	-.066232	.0006427	-.000374	-.001386	-.000146	.001934	.0031046
#3	-.044522	.0005216	-.000207	-.000287	-.000423	.008699	.0048980

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167530BL Acquired: 4/14/2025 18:25:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002852	-.001008	-.000076
Stddev	.003482	.000769	.000038
%RSD	122.0802	76.36000	50.31828
#1	.000615	-.001889	-.000035
#2	-.006348	-.000662	-.000111
#3	-.002822	-.000471	-.000081

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2894.700	69673.78	13643.23	1919.841	4643.475
Stddev	5.516	79.58	37.55	3.756	5.117
%RSD	.1905399	.1142158	.2752257	.1956541	.1102024
#1	2900.443	69763.17	13604.05	1915.507	4644.320
#2	2894.212	69647.51	13646.75	1922.144	4648.117
#3	2889.445	69610.65	13678.90	1921.874	4637.988

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167530BS Acquired: 4/14/2025 18:29:36 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7530660	1.950345	.9459290	1.890373	.7824124	1.811730	.1829782
Stddev	.0042584	.011919	.0007729	.002483	.0024735	.007749	.0007642
%RSD	.5654771	.6111292	.0817035	.1313370	.3161417	.4277285	.4176226
#1	.7531403	1.939929	.9450366	1.889463	.7816184	1.816312	.1825218
#2	.7487709	1.947761	.9463801	1.888474	.7851854	1.802782	.1825524
#3	.7572868	1.963344	.9463703	1.893182	.7804334	1.816094	.1838604

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1952309	.1919163	.9537957	.3762129	.1865542	.2912398	2.701586
Stddev	.0016206	.0005305	.0029856	.0005114	.0005694	.0007675	.006194
%RSD	.8300978	.2763955	.3130235	.1359360	.3052463	.2635133	.2292905
#1	.1938642	.1913099	.9507922	.3757460	.1859019	.2904019	2.699083
#2	.1948071	.1922941	.9567631	.3767595	.1869520	.2914091	2.708641
#3	.1970212	.1921450	.9538318	.3761331	.1868087	.2919085	2.697035

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1902608	1.819968	.4658832	.0699022	2.460068	.2763463	.1885956
Stddev	.0008933	.014896	.0017328	.0003799	.010538	.0017423	.0005982
%RSD	.4695195	.8184822	.3719320	.5435118	.4283462	.6304694	.3171940
#1	.1894545	1.802856	.4638830	.0699477	2.469920	.2743430	.1892746
#2	.1912211	1.830031	.4668411	.0695016	2.448958	.2771880	.1883663
#3	.1901069	1.827017	.4669256	.0702574	2.461326	.2775080	.1881461

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.512258	.2859593	.3986263	.6743269	.1907969	.6190111	5.532053
Stddev	.057244	.0018393	.0002101	.0028716	.0003063	.0051838	.008521
%RSD	.6724887	.6432116	.0526973	.4258544	.1605658	.8374270	.1540381
#1	8.564621	.2846186	.3986913	.6710645	.1908349	.6184882	5.522966
#2	8.521011	.2852031	.3983914	.6764721	.1910824	.6244365	5.533326
#3	8.451141	.2880561	.3987962	.6754440	.1904733	.6141086	5.539866

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167530BS Acquired: 4/14/2025 18:29:36 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.006586	.1958663	.1900099
Stddev	.002267	.0004677	.0000905
%RSD	34.42824	.2388068	.0476373
#1	-.008686	.1960784	.1900350
#2	-.006890	.1953301	.1899095
#3	-.004182	.1961905	.1900853

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2856.834	68995.69	12862.07	1907.495	4469.912
Stddev	4.203	49.28	87.46	2.137	2.040
%RSD	.1471042	.0714297	.6800091	.1120142	.0456345
#1	2852.102	68972.51	12946.59	1907.437	4470.578
#2	2860.131	69052.29	12867.68	1905.388	4471.536
#3	2858.268	68962.27	12771.93	1909.661	4467.623

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167548BL Acquired: 4/14/2025 18:33:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0017288	-.001131	-.000575	-.002318	-.000823	-.000257	.0006457
Stddev	.0015436	.000792	.001146	.002473	.002608	.000773	.0004811
%RSD	89.28496	70.01460	199.3121	106.7276	316.8267	300.6796	74.50571
#1	.0032944	-.000304	-.001585	-.004184	.001824	-.000001	.0005594
#2	.0016839	-.001208	.000670	-.003257	-.000903	-.001126	.0011641
#3	.0002082	-.001882	-.000809	.000488	-.003391	.000355	.0002136

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000007	.0000292	-.009531	-.000009	.0000068	.0001369	-.004211
Stddev	.000018	.0001084	.001504	.000232	.0002907	.0003802	.003418
%RSD	236.5357	371.5121	15.77505	2686.653	4302.477	277.7275	81.17120
#1	.000011	.0000076	-.011008	-.000187	-.000194	-.000032	-.001351
#2	-.000009	-.000067	-.008003	-.000093	.000340	.000572	-.003286
#3	-.000024	.000147	-.009583	.000254	-.000126	-.000130	-.007997

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004013	.0195846	-.000113	-.000433	-.050901	.0010714	-.000469
Stddev	.0002582	.0167731	.000133	.000208	.016362	.0003820	.000258
%RSD	64.34548	85.64470	117.8208	48.00554	32.14475	35.65877	54.97691
#1	.0005481	.0010830	-.000044	-.000194	-.058432	.0015009	-.000483
#2	.0001031	.0337960	-.000029	-.000532	-.062142	.0007694	-.000205
#3	.0005527	.0238746	-.000266	-.000573	-.032130	.0009438	-.000720

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.019980	-.000199	-.000227	-.000705	-.000743	.0020738	.0041374
Stddev	.001982	.000933	.000016	.000512	.000214	.0055131	.0032271
%RSD	9.921556	469.8635	7.102804	72.66589	28.81749	265.8436	77.99732
#1	-.021457	-.001214	-.000212	-.000634	-.000966	.0061936	.0014345
#2	-.017727	-.000000	-.000225	-.000232	-.000539	-.004189	.0077103
#3	-.020756	.000619	-.000244	-.001248	-.000725	.004217	.0032674

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167548BL Acquired: 4/14/2025 18:33:40 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0006031	-.001067	-.000101
Stddev	.0037225	.000476	.000036
%RSD	617.2382	44.63913	35.12478
#1	-.003691	-.001187	-.000060
#2	.002576	-.001472	-.000122
#3	.002923	-.000542	-.000121

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2864.992	68119.58	12756.44	1869.339	4590.360
Stddev	6.107	244.44	8.69	3.209	7.375
%RSD	.2131659	.3588331	.0681294	.1716858	.1606630
#1	2862.443	68396.76	12749.31	1867.741	4586.170
#2	2871.961	68027.14	12753.88	1873.034	4598.876
#3	2860.573	67934.85	12766.12	1867.244	4586.035

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167548BS Acquired: 4/14/2025 18:38:00 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8014982	2.027321	.9895762	2.033606	.8445587	1.864350	.1841658
Stddev	.0031902	.016046	.0041367	.013321	.0068821	.003929	.0012993
%RSD	.3980295	.7915049	.4180320	.6550584	.8148725	.2107562	.7054961
#1	.8046253	2.010978	.9849553	2.021343	.8436150	1.868607	.1844744
#2	.8016210	2.027931	.9908385	2.031696	.8381971	1.860862	.1827401
#3	.7982484	2.043053	.9929347	2.047780	.8518639	1.863581	.1852831

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1901085	.2012008	.9688220	.3952078	.1943663	.3058459	2.940483
Stddev	.0012480	.0004590	.0069736	.0018112	.0005988	.0012284	.005109
%RSD	.6564587	.2281122	.7198031	.4582915	.3080512	.4016246	.1737319
#1	.1912600	.2006800	.9714315	.3968015	.1938727	.3050735	2.945361
#2	.1887824	.2013762	.9741145	.3932381	.1941938	.3052020	2.940917
#3	.1902829	.2015462	.9609199	.3955837	.1950323	.3072624	2.935171

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1900865	1.842888	.4872265	.0727050	2.637386	.2814951	.1970543
Stddev	.0005662	.020373	.0016919	.0003946	.011277	.0012190	.0003521
%RSD	.2978690	1.105490	.3472412	.5426671	.4275717	.4330460	.1786864
#1	.1905831	1.863046	.4856526	.0729017	2.635721	.2827934	.1967536
#2	.1894699	1.822307	.4870114	.0722508	2.649402	.2803751	.1969676
#3	.1902065	1.843313	.4890157	.0729627	2.627034	.2813168	.1974416

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.357218	.2761966	.4229905	.7210683	.1972244	.7059467	5.817852
Stddev	.040079	.0021973	.0024517	.0020002	.0006217	.0020679	.006277
%RSD	.4283221	.7955657	.5796188	.2774013	.3152407	.2929280	.1078876
#1	9.369909	.2783348	.4210149	.7190473	.1973956	.7061511	5.810635
#2	9.389414	.2739446	.4222224	.7211104	.1977426	.7079047	5.820887
#3	9.312329	.2763104	.4257344	.7230471	.1965350	.7037841	5.822035

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167548BS Acquired: 4/14/2025 18:38:00 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.007511	.1991249	.1938878
Stddev	.002104	.0008900	.0004422
%RSD	28.00853	.4469736	.2280581
#1	-.009419	.1989908	.1941757
#2	-.007858	.1983095	.1941091
#3	-.005255	.2000744	.1933787

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2767.137	66953.67	13573.37	1830.337	4325.720
Stddev	5.816	133.27	87.39	6.109	8.262
%RSD	.2101937	.1990502	.6438550	.3337615	.1910029
#1	2768.644	66805.89	13492.59	1832.508	4332.848
#2	2772.052	66990.36	13666.14	1823.439	4327.649
#3	2760.716	67064.75	13561.37	1835.063	4316.665

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167566BL Acquired: 4/14/2025 18:42:03 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0025666	-.000660	.0008417	-.001441	-.000298	-.000086	.0007453
Stddev	.0030430	.001202	.0011692	.000851	.000853	.001740	.0000673
%RSD	118.5619	182.0557	138.9101	59.05151	285.8987	2025.869	9.027408
#1	.0030474	-.001266	.0017466	-.002217	-.001251	-.000097	.0008023
#2	.0053407	-.001438	.0012571	-.000531	-.000038	-.001821	.0007626
#3	-.000688	.000724	-.000478	-.001574	.000394	.001660	.0006711

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000273	-.000053	-.003171	-.000237	-.000163	-.000030	-.003052
Stddev	.0000213	.000053	.005830	.000190	.000299	.000113	.003037
%RSD	78.18068	99.10347	183.8580	80.13017	183.5991	374.8532	99.52131
#1	.0000476	-.000019	.000629	-.000409	-.000394	.000069	-.001545
#2	.0000051	-.000114	-.000258	-.000269	-.000269	-.000007	-.006548
#3	.0000292	-.000027	-.009884	-.000033	.000175	-.000153	-.001063

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003995	.0060005	-.000342	-.000251	-.043017	.0003815	-.000293
Stddev	.0003192	.0037501	.000131	.000124	.015463	.0015342	.000168
%RSD	79.91043	62.49618	38.38859	49.26949	35.94616	402.0922	57.22623
#1	.0006451	.0103044	-.000231	-.000321	-.045527	-.001350	-.000451
#2	.0000386	.0034363	-.000309	-.000323	-.057071	.001571	-.000310
#3	.0005147	.0042607	-.000487	-.000108	-.026452	.000924	-.000117

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.042494	-.000524	-.000215	-.000721	-.000537	.0095572	.0025073
Stddev	.011028	.000616	.000368	.000622	.000614	.0049324	.0012292
%RSD	25.95274	117.4655	170.8792	86.24297	114.3019	51.60902	49.02383
#1	-.055228	-.001103	.000146	-.001433	-.000757	.0117322	.0029384
#2	-.036173	-.000593	-.000589	-.000278	.000156	.0039112	.0011207
#3	-.036081	.000123	-.000202	-.000453	-.001011	.0130283	.0034630

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167566BL Acquired: 4/14/2025 18:42:03 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001048	-.000695	-.000110
Stddev	.000413	.000575	.000023
%RSD	39.39709	82.65391	20.99537
#1	-.000604	-.001159	-.000109
#2	-.001420	-.000053	-.000087
#3	-.001119	-.000873	-.000134

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2835.703	69182.40	13291.76	1879.064	4519.039
Stddev	5.366	37.21	75.79	1.552	4.030
%RSD	.1892251	.0537908	.5701871	.0826006	.0891827
#1	2830.149	69148.05	13211.33	1879.016	4515.984
#2	2836.102	69221.93	13361.83	1877.537	4517.526
#3	2840.858	69177.21	13302.13	1880.640	4523.607

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167566BS Acquired: 4/14/2025 18:46:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7840658	2.022242	.9827029	1.977305	.8085271	1.882071	.1924269
Stddev	.0014570	.008724	.0019806	.004175	.0002881	.009656	.0011236
%RSD	.1858296	.4314091	.2015501	.2111686	.0356388	.5130288	.5838908
#1	.7824724	2.020993	.9806863	1.981697	.8086399	1.879163	.1912484
#2	.7853303	2.031523	.9827770	1.973386	.8081996	1.874204	.1925464
#3	.7843945	2.014209	.9846455	1.976834	.8087417	1.892846	.1934860

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1911110	.2000966	.9874138	.3942992	.1941891	.3033968	2.993974
Stddev	.0010922	.0002516	.0096326	.0003204	.0005233	.0005353	.013862
%RSD	.5714953	.1257185	.9755335	.0812443	.2694889	.1764365	.4629946
#1	.1919390	.2003534	.9772421	.3946666	.1936481	.3032654	2.989180
#2	.1915209	.1998507	.9963968	.3941522	.1946927	.3029394	2.983146
#3	.1898732	.2000857	.9886025	.3940787	.1942266	.3039855	3.009597

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1944232	1.877207	.4842068	.0729906	2.764219	.2895448	.1992832
Stddev	.0010698	.017266	.0004076	.0001868	.039073	.0007872	.0011236
%RSD	.5502349	.9197572	.0841696	.2559948	1.413522	.2718678	.5638424
#1	.1936569	1.883420	.4837388	.0729136	2.735078	.2901645	.1998993
#2	.1939673	1.890506	.4843985	.0728545	2.748959	.2886591	.1999639
#3	.1956454	1.857694	.4844832	.0732036	2.808618	.2898109	.1979862

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.518978	.2795571	.4111434	.6943064	.1955963	.6902303	5.734305
Stddev	.069448	.0033340	.0006125	.0032984	.0006881	.0150586	.003578
%RSD	.7295791	1.192606	.1489778	.4750597	.3518065	2.181684	.0623952
#1	9.447915	.2812528	.4114322	.6927648	.1948298	.6846347	5.730783
#2	9.522328	.2817024	.4104399	.6920611	.1957982	.6787705	5.737936
#3	9.586690	.2757161	.4115582	.6980933	.1961609	.7072857	5.734195

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167566BS Acquired: 4/14/2025 18:46:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.004485	.2014430	.1990662
Stddev	.001952	.0029882	.0010520
%RSD	43.51386	1.483396	.5284905
#1	-.002931	.1980728	.1979028
#2	-.006676	.2024870	.1993449
#3	-.003848	.2037690	.1999508

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2838.655	67859.22	13695.35	1877.083	4439.742
Stddev	5.860	109.71	66.97	2.466	8.055
%RSD	.2064269	.1616776	.4889680	.1313755	.1814281
#1	2837.721	67958.07	13649.77	1875.685	4446.091
#2	2844.925	67878.42	13664.05	1875.633	4442.454
#3	2833.318	67741.17	13772.23	1879.930	4430.681

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167500BL Acquired: 4/14/2025 18:50:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0014596	-.001679	.0001360	-.000374	.0022611	.0044255	.0016657
Stddev	.0007311	.001742	.0011853	.001183	.0011907	.0021388	.0007389
%RSD	50.08863	103.7357	871.4525	316.0893	52.65952	48.32825	44.36005
#1	.0023038	-.003611	.0014502	.000616	.0013628	.0061968	.0008448
#2	.0010281	-.000229	-.000852	-.000054	.0018089	.0050302	.0022776
#3	.0010470	-.001197	-.000190	-.001684	.0036116	.0020495	.0018747

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000041	-.000025	-.001746	-.000018	.0000598	.0002414	-.001399
Stddev	.000017	.000042	.007271	.000065	.0002465	.0000464	.002448
%RSD	42.39218	168.6822	416.5341	357.1674	412.6380	19.20081	174.9571
#1	-.000049	-.000056	.003885	.000034	.0000366	.0001933	-.001811
#2	-.000052	.000023	-.009954	-.000090	-.000174	.0002451	.001229
#3	-.000021	-.000041	.000833	.000002	.000317	.0002858	-.003614

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003796	.0154708	-.000135	-.000573	-.042966	.0013480	-.000283
Stddev	.0001193	.0111416	.000151	.000263	.015787	.0005511	.000151
%RSD	31.41745	72.01694	111.1809	45.92974	36.74421	40.88413	53.23926
#1	.0004861	.0072127	.000038	-.000699	-.060505	.0019811	-.000452
#2	.0004021	.0281432	-.000230	-.000270	-.038501	.0009753	-.000237
#3	.0002507	.0110566	-.000215	-.000749	-.029891	.0010877	-.000161

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.033990	-.001362	-.000421	-.000851	-.000337	.0092224	.0015613
Stddev	.027136	.000441	.000298	.001054	.000465	.0042848	.0019005
%RSD	79.83714	32.33843	70.67537	123.7638	137.8760	46.46140	121.7225
#1	-.039621	-.001002	-.000186	-.000473	.000111	.0082149	.0002810
#2	-.004480	-.001231	-.000756	-.002042	-.000306	.0055311	.0037450
#3	-.057869	-.001854	-.000322	-.000039	-.000817	.0139212	.0006580

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167500BL Acquired: 4/14/2025 18:50:26 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0010160	-.001118	-.000093
Stddev	.0017145	.001202	.000052
%RSD	168.7502	107.4814	55.44535
#1	.0022414	-.000246	-.000063
#2	.0017500	-.002488	-.000064
#3	-.000943	-.000620	-.000153

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2829.484	68824.13	12858.10	1906.405	4464.923
Stddev	5.857	156.59	73.72	7.265	15.571
%RSD	.2069890	.2275291	.5733110	.3810919	.3487325
#1	2834.900	68668.01	12808.36	1912.759	4468.123
#2	2830.282	68823.16	12823.15	1898.485	4478.645
#3	2823.269	68981.20	12942.79	1907.972	4448.001

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167500BS Acquired: 4/14/2025 18:54:46 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7851373	2.021904	.9823079	1.981558	.8087941	1.855676	.1874936
Stddev	.0006551	.012800	.0048251	.013152	.0053587	.001240	.0002936
%RSD	.0834405	.6330774	.4912026	.6637276	.6625564	.0668298	.1565972
#1	.7847614	2.019676	.9805939	1.967001	.8082958	1.856914	.1877180
#2	.7847567	2.010364	.9785739	1.985088	.8037019	1.855680	.1871613
#3	.7858937	2.035672	.9877561	1.992585	.8143845	1.854434	.1876014

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1994525	.2000750	.9779706	.3866620	.1935100	.3019970	2.784522
Stddev	.0013381	.0008462	.0105644	.0011098	.0007534	.0010196	.021922
%RSD	.6709033	.4229247	1.080237	.2870324	.3893137	.3376265	.7872814
#1	.2009115	.1994298	.9887175	.3854031	.1929476	.3013216	2.760544
#2	.1991635	.1997621	.9775957	.3870838	.1932165	.3014995	2.803537
#3	.1982825	.2010330	.9675987	.3874992	.1943659	.3031699	2.789485

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1948427	1.868785	.4835977	.0707209	2.500607	.2845951	.1930884
Stddev	.0005385	.032597	.0018388	.0007912	.035365	.0006980	.0010044
%RSD	.2763945	1.744296	.3802316	1.118815	1.414269	.2452745	.5201495
#1	.1951182	1.899145	.4818416	.0709315	2.460008	.2840675	.1922448
#2	.1951877	1.834336	.4834420	.0713854	2.517095	.2843312	.1928210
#3	.1942222	1.872875	.4855093	.0698456	2.524718	.2853867	.1941994

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.738662	.2888749	.4084444	.7006690	.1936271	.6361710	5.864244
Stddev	.047173	.0033806	.0013626	.0032980	.0010790	.0114494	.028008
%RSD	.5398219	1.170269	.3335972	.4706888	.5572341	1.799738	.4776023
#1	8.689177	.2927396	.4073034	.6986809	.1948378	.6257365	5.852809
#2	8.783121	.2874181	.4080768	.6988502	.1927671	.6343576	5.843763
#3	8.743688	.2864668	.4099531	.7044759	.1932764	.6484189	5.896160

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: PB167500BS Acquired: 4/14/2025 18:54:46 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.009122	.1985467	.1944742
Stddev	.001332	.0022036	.0005191
%RSD	14.59763	1.109843	.2669027
#1	-.007664	.1986455	.1948790
#2	-.010274	.2006991	.1946547
#3	-.009429	.1962954	.1938891

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2821.940	69171.22	12970.84	1914.328	4384.001
Stddev	4.666	173.67	79.01	5.670	9.853
%RSD	.1653634	.2510681	.6091207	.2961845	.2247418
#1	2822.537	69340.97	12895.74	1920.842	4386.820
#2	2826.279	69178.81	12963.54	1910.501	4392.137
#3	2817.003	68993.88	13053.24	1911.641	4373.046

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1768-01DLX5 Acquired: 4/14/2025 18:58:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0160036	-.003163	1.438271	-.002781	.0175304	29.06432	.2590533
Stddev	.0013172	.001550	.001907	.003737	.0019455	.04400	.0014500
%RSD	8.230566	48.99959	.1325592	134.3600	11.09787	.1513920	.5597140
#1	.0145352	-.004499	1.437332	-.003693	.0196106	29.08420	.2573942
#2	.0170811	-.003524	1.437015	-.005978	.0157558	29.01388	.2600777
#3	.0163945	-.001464	1.440464	.001327	.0172246	29.09487	.2596879

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0016342	.0014055	24.84217	.1604423	.0204197	1.105517	53.11160
Stddev	.0000498	.0000408	.07088	.0005862	.0001855	.002458	.26793
%RSD	3.047589	2.899153	.2853242	.3653620	.9083109	.2223801	.5044747
#1	.0016401	.0014525	24.76048	.1610888	.0202862	1.106166	53.19691
#2	.0016808	.0013803	24.88737	.1602925	.0206315	1.102800	53.32650
#3	.0015817	.0013837	24.87866	.1599455	.0203414	1.107586	52.81140

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7343019	12.69258	.0864558	.0292048	1.283140	.1066464	17.87407
Stddev	.0015421	.06267	.0005024	.0002146	.011961	.0012963	.04453
%RSD	.2100125	.4937501	.5811518	.7346820	.9321498	1.215542	.2491278
#1	.7330000	12.64443	.0860199	.0292223	1.285593	.1081365	17.85448
#2	.7360050	12.66986	.0863421	.0294101	1.293685	.1057785	17.92503
#3	.7339009	12.76344	.0870053	.0289820	1.270143	.1060241	17.84269

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.030823	.0438747	.0061478	.2115560	1.815929	1.604669	2.213690
Stddev	.018067	.0014067	.0000951	.0012796	.004045	.007952	.008351
%RSD	.8896614	3.206106	1.546745	.6048678	.2227250	.4955616	.3772619
#1	2.023874	.0451445	.0060479	.2128473	1.813763	1.605371	2.219999
#2	2.051334	.0441171	.0061581	.2115324	1.820595	1.612248	2.216853
#3	2.017262	.0423626	.0062373	.2102883	1.813428	1.596390	2.204219

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1768-01DLX5 Acquired: 4/14/2025 18:58:49 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.051252	.0341313	.0956536
Stddev	.015460	.0003196	.0001651
%RSD	.3816166	.9364607	.1725568
#1	4.045416	.0344394	.0954943
#2	4.039559	.0341532	.0958239
#3	4.068780	.0338013	.0956426

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2799.422	67870.95	14255.46	1848.297	4234.524
Stddev	2.330	198.09	36.93	3.140	.938
%RSD	.0832207	.2918688	.2590645	.1699036	.0221581
#1	2801.787	67678.19	14261.39	1848.988	4233.456
#2	2799.348	67860.68	14289.07	1851.034	4235.214
#3	2797.130	68073.98	14215.92	1844.869	4234.904

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1730-01 Acquired: 4/14/2025 19:02:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0607600	-.041539	.0531535	.0009574	-.010790	160.8614
Stddev	.0033426	.001990	.0029305	.0024507	.004356	.0529
%RSD	5.501393	4.791764	5.513314	255.9665	40.36798	.0328610
#1	.0582974	-.040425	.0505830	.0004034	-.007280	160.8540
#2	.0594174	-.043837	.0563446	.0036377	-.015664	160.8126
#3	.0645652	-.040356	.0525330	-.001169	-.009426	160.9176

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0958520	.0060909	.0077170	123.9354	.0484767	.3032662
Stddev	.0005721	.0000083	.0007359	.2879	.0005493	.0005770
%RSD	.5968495	.1361347	9.535547	.2323315	1.133214	.1902783
#1	.0963434	.0060902	.0072069	123.9282	.0488680	.3029211
#2	.0952240	.0060995	.0073835	123.6512	.0487135	.3029453
#3	.0959886	.0060829	.0085605	124.2269	.0478487	.3039324

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8702669	386.7843	2.548810	95.08767	.2242968	-.017298
Stddev	.0032095	1.8042	.006046	.34802	.0007093	.000095
%RSD	.3688000	.4664513	.2372104	.3659960	.3162182	.5510643
#1	.8692733	387.8773	2.553379	95.28145	.2236507	-.017408
#2	.8676717	387.7738	2.541954	94.68590	.2241839	-.017243
#3	.8738558	384.7019	2.551097	95.29566	.2250557	-.017244

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	28.48095	1.349783	.4687583	2.357907	-.051845	.0047013
Stddev	.21789	.001542	.0021993	.023064	.014357	.0003598
%RSD	.7650204	.1142041	.4691687	.9781368	27.69227	7.653983
#1	28.44195	1.350911	.4673747	2.349376	-.040997	.0051168
#2	28.71570	1.348027	.4676059	2.384021	-.046412	.0044945
#3	28.28519	1.350412	.4712943	2.340325	-.068125	.0044926

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1730-01 Acquired: 4/14/2025 19:02:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.018439	10.72988	5.852805	10.49002	F 24.11539	.2505761
Stddev	.001299	.00688	.026195	.03866	.13061	.0011651
%RSD	7.046365	.0641448	.4475630	.3685301	.5416134	.4649840
#1	-.018425	10.72978	5.866306	10.45630	24.01637	.2506846
#2	-.017146	10.72304	5.869495	10.48154	24.06637	.2516831
#3	-.019745	10.73681	5.822614	10.53221	24.26342	.2493604

Elem	Sr4077
Units	ppm
Avg	.3434987
Stddev	.0001060
%RSD	.0308545
#1	.3434618
#2	.3434162
#3	.3436182

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3114.603	75462.21	15618.27	2041.120	3684.372
Stddev	8.358	287.76	42.77	11.314	8.420
%RSD	.2683563	.3813342	.2738522	.5542931	.2285211
#1	3108.688	75427.10	15638.86	2054.159	3684.647
#2	3124.165	75193.62	15646.85	2035.295	3692.651
#3	3110.957	75765.92	15569.10	2033.905	3675.819

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCV06 Acquired: 4/14/2025 19:07:02 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.781009	4.874640	4.872736	4.816666	4.841706	9.634277
Stddev	.007147	.027064	.009996	.005796	.006205	.017384
%RSD	.1494899	.5552093	.2051453	.1203260	.1281567	.1804403
#1	4.774212	4.876479	4.864867	4.822766	4.836229	9.649887
#2	4.780354	4.900738	4.869358	4.811233	4.840444	9.637403
#3	4.788461	4.846703	4.883984	4.815998	4.848445	9.615542

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.739365	.2518866	2.456291	24.24888	.9566589	2.464227
Stddev	.045760	.0011632	.003908	.03411	.0024574	.002921
%RSD	.4698428	.4617862	.1591175	.1406719	.2568745	.1185164
#1	9.708562	.2507376	2.452184	24.25043	.9540712	2.462192
#2	9.791946	.2518588	2.456724	24.28218	.9569444	2.462915
#3	9.717587	.2530635	2.459965	24.21401	.9589611	2.467573

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.226113	4.558559	2.437671	23.97896	2.445523	1.187535
Stddev	.002711	.039685	.012516	.05790	.003332	.000771
%RSD	.2211316	.8705711	.5134559	.2414519	.1362464	.0649316
#1	1.226117	4.590508	2.440139	23.91610	2.442222	1.186653
#2	1.223400	4.571034	2.448769	24.03010	2.445462	1.188080
#3	1.228823	4.514135	2.424104	23.99067	2.448885	1.187872

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.23765	2.427793	2.354704	24.29932	5.090388	4.888587
Stddev	.15866	.012560	.007701	.13123	.021243	.002341
%RSD	.6545895	.5173577	.3270383	.5400510	.4173069	.0478948
#1	24.37000	2.440324	2.353628	24.40586	5.065922	4.888036
#2	24.28117	2.427850	2.362886	24.33937	5.104139	4.886570
#3	24.06177	2.415204	2.347598	24.15273	5.101104	4.891155

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCV06 Acquired: 4/14/2025 19:07:02 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.911512	4.826003	F 4.454571	4.947218	4.882133	4.839908
Stddev	.008625	.013021	.014270	.006776	.004496	.020906
%RSD	.1755994	.2698039	.3203472	.1369601	.0920953	.4319542
#1	4.901648	4.835655	4.438094	4.949524	4.878111	4.862325
#2	4.917634	4.831162	4.462675	4.952540	4.886987	4.836458
#3	4.915254	4.811194	4.462944	4.939590	4.881300	4.820942

Elem	Sr4077
Units	ppm
Avg	4.937864
Stddev	.065304
%RSD	1.322510
#1	4.931927
#2	4.875732
#3	5.005934

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2759.669	68573.98	12484.43	1855.296	4093.486
Stddev	4.102	150.24	55.11	4.723	1.835
%RSD	.1486485	.2190911	.4414037	.2545520	.0448349
#1	2755.498	68740.19	12547.57	1854.927	4093.910
#2	2763.699	68447.82	12459.66	1850.769	4095.073
#3	2759.809	68533.94	12446.06	1860.193	4091.476

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCB06 Acquired: 4/14/2025 19:11:12 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0025893	.0007629	.0004223	-.000961	-.000829	-.003381	.0015529
Stddev	.0039253	.0016702	.0008579	.003570	.002686	.003645	.0004742
%RSD	151.5952	218.9268	203.1261	371.6895	324.1960	107.8103	30.53558
#1	-.001142	.0026643	.0013200	-.001792	.002161	-.004101	.0016573
#2	.006683	.0000912	.0003363	.002952	-.003040	-.006611	.0019663
#3	.002227	-.000467	-.000389	-.004042	-.001607	.000571	.0010352

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000021	-.000045	-.011557	.0001379	.0000816	-.000207	.0006353
Stddev	.000053	.000024	.003828	.0004486	.0001057	.000151	.0016205
%RSD	250.5631	53.01679	33.12493	325.2989	129.6517	72.79402	255.0668
#1	-.000082	-.000052	-.007200	-.000286	-.000040	-.000373	.0012853
#2	.000011	-.000064	-.014385	.000091	.000154	-.000078	.0018299
#3	.000008	-.000018	-.013085	.000608	.000130	-.000171	-.001209

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003218	.0074148	-.000014	-.000758	-.050292	.0009499	-.000497
Stddev	.0002816	.0055039	.000111	.000257	.010269	.0019501	.000118
%RSD	87.50759	74.22760	777.8972	33.93850	20.41981	205.3014	23.82157
#1	.0001907	.0046438	-.000069	-.001017	-.057833	.0000657	-.000623
#2	.0001297	.0038472	.000113	-.000755	-.054446	-.000402	-.000389
#3	.0006451	.0137535	-.000087	-.000502	-.038596	.003185	-.000478

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.062589	.0048548	-.000017	-.000477	-.000449	.0087799	.0040357
Stddev	.018684	.0002806	.000236	.000844	.000115	.0046716	.0013441
%RSD	29.85106	5.779991	1357.794	176.7482	25.48267	53.20737	33.30495
#1	-.071877	.0051490	.000233	-.000496	-.000580	.0052215	.0033398
#2	-.074809	.0048255	-.000050	-.001312	-.000400	.0070482	.0031823
#3	-.041082	.0045900	-.000236	.000376	-.000367	.0140701	.0055850

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCB06 Acquired: 4/14/2025 19:11:12 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0021154	-.000953	-.000057
Stddev	.0015155	.000678	.000027
%RSD	71.64115	71.09289	47.68735
#1	.0023650	-.000201	-.000064
#2	.0004906	-.001516	-.000079
#3	.0034906	-.001144	-.000027

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2862.887	68809.90	13891.26	1919.181	4548.564
Stddev	2.097	233.66	39.36	5.489	3.733
%RSD	.0732602	.3395712	.2833366	.2860019	.0820709
#1	2860.901	68583.10	13873.00	1912.918	4544.381
#2	2862.679	69049.87	13936.43	1923.154	4549.756
#3	2865.080	68796.73	13864.35	1921.471	4551.556

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1730-03 Acquired: 4/14/2025 19:15:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0322289	-.029928	.0479942	-.003912	-.012573	139.9590	.1260594
Stddev	.0009830	.001081	.0005930	.002473	.002244	.1919	.0007994
%RSD	3.049914	3.610544	1.235566	63.21752	17.84933	.1370908	.6341308
#1	.0316955	-.030437	.0475682	-.006522	-.014355	140.0261	.1263925
#2	.0316279	-.030659	.0477431	-.003611	-.013312	139.7426	.1266383
#3	.0333632	-.028687	.0486715	-.001603	-.010053	140.1083	.1251473

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0059692	.0043495	119.3991	.0462131	.2912791	.7680775	376.9264
Stddev	.0001858	.0001468	.2249	.0007998	.0010750	.0026050	1.0749
%RSD	3.112679	3.376268	.1883962	1.730767	.3690435	.3391577	.2851679
#1	.0061321	.0041897	119.1632	.0461727	.2909420	.7656188	375.8709
#2	.0060088	.0043802	119.6111	.0454343	.2904132	.7678061	376.8888
#3	.0057668	.0044785	119.4231	.0470324	.2924823	.7708075	378.0196

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.047616	95.77868	.2077761	-.016668	24.19938	1.306992	.4415113
Stddev	.008746	.19031	.0009808	.000315	.01528	.002236	.0001132
%RSD	.2869703	.1987015	.4720641	1.890723	.0631345	.1710694	.0256269
#1	3.040297	95.55962	.2084405	-.017011	24.18220	1.309261	.4415004
#2	3.057301	95.87308	.2066496	-.016603	24.20448	1.306924	.4416295
#3	3.045248	95.90335	.2082383	-.016391	24.21145	1.304791	.4414040

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.065967	.1758544	.0042011	-.015926	9.592979	5.359541	9.480283
Stddev	.009239	.0023463	.0003913	.001533	.006922	.028055	.027236
%RSD	.4472194	1.334234	9.313526	9.622755	.0721619	.5234557	.2872923
#1	2.055388	.1737043	.0039298	-.015910	9.596002	5.345311	9.464436
#2	2.070061	.1755020	.0046496	-.014402	9.597875	5.341453	9.464681
#3	2.072452	.1783570	.0040238	-.017467	9.585059	5.391859	9.511732

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1730-03 Acquired: 4/14/2025 19:15:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	6.958562	.2432392	.3140265
Stddev	.011082	.0008523	.0004915
%RSD	.1592627	.3504104	.1565004
#1	6.960571	.2429831	.3141598
#2	6.946613	.2441902	.3144375
#3	6.968503	.2425442	.3134821

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3090.328	75995.32	15682.39	2066.466	3732.464
Stddev	12.575	149.00	27.46	3.110	17.967
%RSD	.4069081	.1960589	.1751266	.1504978	.4813809
#1	3101.840	76073.08	15689.32	2067.688	3747.933
#2	3092.236	76089.35	15652.12	2068.780	3736.704
#3	3076.908	75823.53	15705.72	2062.930	3712.756

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1730-05 Acquired: 4/14/2025 19:19:37 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0309279	-.041596	.0602354	-.005751	-.011464	152.6278	.1088156
Stddev	.0025134	.004642	.0023792	.002876	.003200	.1690	.0002893
%RSD	8.126490	11.16033	3.949761	50.01571	27.91066	.1107566	.2658942
#1	.0318463	-.045617	.0628452	-.005363	-.009538	152.6488	.1085611
#2	.0280845	-.036516	.0581875	-.008802	-.015157	152.7854	.1091303
#3	.0328529	-.042657	.0596735	-.003089	-.009696	152.4493	.1087553

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0066639	.0112192	124.2671	.0470354	.3130956	.8637401	397.8504
Stddev	.0000483	.0005239	.1656	.0001599	.0008604	.0026570	1.5540
%RSD	.7253574	4.669545	.1332954	.3400187	.2747943	.3076178	.3905967
#1	.0066506	.0106149	124.3485	.0468593	.3133361	.8619024	399.2252
#2	.0067175	.0115442	124.3762	.0470753	.3121406	.8625314	396.1643
#3	.0066236	.0114985	124.0765	.0471717	.3138102	.8667866	398.1616

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.861384	95.99570	.2087322	-.020064	26.51011	1.376252	.5566725
Stddev	.005355	.24069	.0008598	.000344	.04323	.002294	.0023660
%RSD	.1871520	.2507322	.4119036	1.716488	.1630586	.1667016	.4250207
#1	2.866625	96.04704	.2077683	-.019778	26.53603	1.375369	.5591721
#2	2.861606	96.20659	.2090083	-.020446	26.53410	1.378856	.5563774
#3	2.855922	95.73348	.2094200	-.019968	26.46021	1.374530	.5544679

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.173377	-.179210	.0045115	-.020942	11.31454	6.138182	10.52504
Stddev	.020578	.002615	.0002265	.000666	.02640	.016523	.03009
%RSD	.9468084	1.459366	5.019469	3.178668	.2333299	.2691879	.2858795
#1	2.149844	-.178723	.0043382	-.020173	11.33951	6.152393	10.50332
#2	2.182299	-.182034	.0047677	-.021329	11.31720	6.142102	10.51243
#3	2.187987	-.176872	.0044286	-.021324	11.28691	6.120051	10.55939

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1730-05 Acquired: 4/14/2025 19:19:37 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	12.04767	.2631205	.3301999
Stddev	.04587	.0013398	.0005473
%RSD	.3807038	.5092002	.1657451
#1	12.02235	.2633775	.3306817
#2	12.02004	.2616708	.3303131
#3	12.10061	.2643132	.3296049

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3135.825	76716.21	15610.97	2062.292	3682.370
Stddev	7.967	84.88	22.62	.617	5.801
%RSD	.2540565	.1106428	.1448708	.0299169	.1575417
#1	3143.680	76692.70	15586.31	2062.875	3688.575
#2	3136.043	76645.57	15615.83	2061.646	3681.454
#3	3127.751	76810.38	15630.75	2062.355	3677.082

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1730-07 Acquired: 4/14/2025 19:23:44 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0305022	-.013057	.0550524	-.002875	-.017006	137.1885	.2127084
Stddev	.0003597	.004216	.0011865	.005275	.001499	.2009	.0012462
%RSD	1.179318	32.28971	2.155233	183.4887	8.812858	.1464552	.5858531
#1	.0305993	-.013325	.0563515	-.004767	-.015410	137.0359	.2115495
#2	.0308033	-.008713	.0547798	.003085	-.017226	137.4161	.2140265
#3	.0301038	-.017132	.0540259	-.006943	-.018383	137.1134	.2125492

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0070318	.0089456	127.7683	.0259965	.3036942	.6546046	471.8101
Stddev	.0001533	.0002978	.2559	.0005978	.0005270	.0031071	1.1319
%RSD	2.180184	3.329262	.2002942	2.299417	.1735439	.4746553	.2399088
#1	.0069362	.0088815	127.7412	.0265830	.3034400	.6518848	472.4818
#2	.0072086	.0086850	128.0367	.0260182	.3033424	.6539382	472.4453
#3	.0069506	.0092702	127.5271	.0253881	.3043001	.6579909	470.5033

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.465301	117.3385	.1701830	-.020219	24.47492	1.172307	.4928984
Stddev	.011021	.4856	.0005091	.000058	.34513	.001816	.0009792
%RSD	.3180450	.4138684	.2991663	.2876106	1.410126	.1549401	.1986584
#1	3.457062	117.7537	.1697865	-.020218	24.07653	1.173234	.4928602
#2	3.477821	117.4574	.1700054	-.020277	24.68305	1.173473	.4938961
#3	3.461022	116.8045	.1707572	-.020161	24.66517	1.170214	.4919389

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.777309	1.080916	.0008106	-.010465	7.247486	6.033932	8.664563
Stddev	.016831	.006010	.0002007	.000659	.021632	.043328	.012126
%RSD	.9469810	.5560146	24.75907	6.297942	.2984790	.7180691	.1399467
#1	1.760577	1.087162	.0008117	-.009844	7.225438	5.984620	8.678532
#2	1.794237	1.075173	.0010108	-.010394	7.268677	6.051270	8.656746
#3	1.777115	1.080412	.0006094	-.011157	7.248343	6.065905	8.658413

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1730-07 Acquired: 4/14/2025 19:23:44 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.576221	.2879270	.3395290
Stddev	.025582	.0013598	.0015063
%RSD	.5590171	.4722717	.4436448
#1	4.574724	.2873233	.3377903
#2	4.551420	.2894842	.3403591
#3	4.602518	.2869736	.3404377

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3037.004	76601.37	16298.20	2032.973	3627.942
Stddev	2.813	283.35	88.03	5.569	6.188
%RSD	.0926333	.3699022	.5401239	.2739459	.1705601
#1	3039.814	76790.63	16228.30	2031.147	3630.568
#2	3034.188	76275.60	16269.24	2028.545	3632.384
#3	3037.011	76737.86	16397.06	2039.226	3620.874

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1730-09 Acquired: 4/14/2025 19:27:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0480413	-.020500	.0541350	.0024564	-.016241	146.9027	.1907222
Stddev	.0008177	.006615	.0023706	.0013463	.001734	.1720	.0002375
%RSD	1.702063	32.26933	4.379011	54.80805	10.67540	.1170636	.1245165
#1	.0471670	-.013089	.0535725	.0017526	-.016167	147.0219	.1909255
#2	.0481698	-.022601	.0567363	.0040087	-.014545	146.7056	.1904612
#3	.0487872	-.025809	.0520964	.0016079	-.018011	146.9807	.1907799

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0069791	.0043334	149.8670	.0293539	.3055957	.6995776	478.7953
Stddev	.0001102	.0008067	.1529	.0003702	.0003358	.0017967	3.0824
%RSD	1.578832	18.61524	.1020303	1.260997	.1098859	.2568327	.6437731
#1	.0069965	.0035429	149.6915	.0289382	.3056014	.6976038	482.1573
#2	.0068613	.0043019	149.9375	.0296477	.3052571	.7000107	478.1262
#3	.0070796	.0051553	149.9719	.0294759	.3059287	.7011181	476.1025

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.501450	117.0859	.1805249	-.019681	30.15718	1.273400	.4994479
Stddev	.001647	.0473	.0007161	.000509	.08164	.002295	.0008003
%RSD	.0470376	.0404370	.3966744	2.584707	.2707073	.1802341	.1602362
#1	3.500943	117.0896	.1797014	-.019205	30.07030	1.273647	.4992613
#2	3.503291	117.0368	.1808726	-.019621	30.16893	1.270991	.5003250
#3	3.500117	117.1312	.1810008	-.020217	30.23230	1.275561	.4987574

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.065247	1.989985	.0017757	-.011092	8.303004	6.121004	9.141822
Stddev	.028609	.009971	.0004502	.001748	.006193	.018548	.026794
%RSD	1.385246	.5010622	25.35564	15.75793	.0745902	.3030289	.2930887
#1	2.084578	1.999097	.0013223	-.009375	8.296632	6.140500	9.110907
#2	2.032382	1.991523	.0022227	-.011032	8.303377	6.103577	9.156226
#3	2.078780	1.979334	.0017820	-.012870	8.309002	6.118936	9.158332

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1730-09 Acquired: 4/14/2025 19:27:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	14.49495	.2788409	.3985865
Stddev	.03237	.0014693	.0006008
%RSD	.2233443	.5269283	.1507297
#1	14.46714	.2804186	.3981585
#2	14.48724	.2785922	.3983278
#3	14.53049	.2775118	.3992734

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3003.332	74265.31	16108.57	2020.911	3600.492
Stddev	8.395	91.52	14.22	6.502	6.715
%RSD	.2795210	.1232307	.0882788	.3217578	.1864933
#1	2994.003	74369.65	16123.52	2027.445	3597.043
#2	3010.276	74227.62	16095.21	2014.440	3608.230
#3	3005.718	74198.65	16106.99	2020.848	3596.203

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1730-11 Acquired: 4/14/2025 19:32:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0390712	-.019692	.0529350	-.001692	-.015742	160.0218	.1621267
Stddev	.0021483	.002341	.0025133	.000938	.003693	.1684	.0010623
%RSD	5.498469	11.88707	4.747876	55.44437	23.45716	.1052652	.6552287
#1	.0392544	-.021187	.0503732	-.000610	-.011512	160.1566	.1619066
#2	.0411221	-.016994	.0553968	-.002283	-.017391	159.8329	.1632818
#3	.0368372	-.020894	.0530349	-.002181	-.018323	160.0758	.1611916

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0074899	.0073598	164.4207	.0351085	.3090582	.7033986	475.0515
Stddev	.0001059	.0001178	.5930	.0001304	.0004341	.0006910	1.2292
%RSD	1.413984	1.600405	.3606723	.3714733	.1404592	.0982318	.2587471
#1	.0074015	.0072257	163.7688	.0352463	.3091235	.7032550	475.6729
#2	.0074610	.0074463	164.9282	.0350920	.3094560	.7027908	475.8460
#3	.0076073	.0074075	164.5650	.0349871	.3085952	.7041501	473.6357

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.339569	130.6497	.1989175	-.022181	32.60122	1.267055	.4942253
Stddev	.015840	.3528	.0004899	.000248	.27126	.002015	.0013862
%RSD	.4743072	.2700085	.2462857	1.117678	.8320496	.1590032	.2804709
#1	3.329497	130.2488	.1994294	-.022159	32.79819	1.268006	.4956973
#2	3.357827	130.9126	.1984530	-.022439	32.71365	1.264741	.4940337
#3	3.331384	130.7877	.1988702	-.021944	32.29183	1.268419	.4929449

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.508546	1.568529	.0023852	-.014169	8.655052	5.170261	8.910456
Stddev	.030314	.005086	.0006434	.001699	.013396	.028201	.003395
%RSD	1.208426	.3242401	26.97551	11.99377	.1547750	.5454530	.0380980
#1	2.543153	1.565551	.0027820	-.015855	8.651963	5.202176	8.912280
#2	2.495786	1.574402	.0027308	-.014195	8.669722	5.148700	8.912548
#3	2.486698	1.565635	.0016429	-.012457	8.643470	5.159907	8.906539

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1730-11 Acquired: 4/14/2025 19:32:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	8.086553	.2940735	.4068820
Stddev	.025898	.0003427	.0010321
%RSD	.3202628	.1165303	.2536692
#1	8.114503	.2937859	.4072707
#2	8.081788	.2944527	.4076634
#3	8.063368	.2939820	.4057120

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3004.273	74199.02	15718.16	2030.707	3599.093
Stddev	3.359	184.69	52.30	16.249	4.523
%RSD	.1117951	.2489107	.3327163	.8001887	.1256700
#1	3006.611	74020.15	15778.49	2013.523	3596.633
#2	3000.424	74187.88	15690.28	2045.823	3596.333
#3	3005.784	74389.02	15685.71	2032.776	3604.313

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1730-13 Acquired: 4/14/2025 19:36:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0333237	-.012598	.0467438	.0016711	-.020614	137.1254	.1584017
Stddev	.0032910	.003321	.0010102	.0031975	.001449	.0443	.0006132
%RSD	9.875839	26.35783	2.161190	191.3332	7.028383	.0323066	.3870939
#1	.0310047	-.013814	.0465301	.0007785	-.022221	137.0742	.1585207
#2	.0370903	-.008841	.0478438	.0052201	-.020214	137.1504	.1589467
#3	.0318760	-.015139	.0458575	-.000985	-.019407	137.1515	.1577378

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0066766	.0046127	138.7813	.0317463	.2947094	.7279079	463.1816
Stddev	.0000369	.0006179	.1937	.0002149	.0006723	.0019738	1.1953
%RSD	.5528276	13.39637	.1395733	.6768520	.2281087	.2711552	.2580533
#1	.0066344	.0046907	138.9823	.0316972	.2939706	.7262717	462.7080
#2	.0067028	.0039595	138.5959	.0315603	.2948724	.7273519	464.5411
#3	.0066925	.0051879	138.7657	.0319815	.2952851	.7301000	462.2957

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.227759	121.6733	.1819959	-.019037	29.11095	1.153077	.4629229
Stddev	.011086	.1652	.0001774	.000378	.31625	.002291	.0012051
%RSD	.3434456	.1357873	.0974458	1.986738	1.086354	.1987183	.2603215
#1	3.239028	121.8536	.1821481	-.019388	29.17119	1.151776	.4633094
#2	3.227384	121.5292	.1820385	-.018636	29.39274	1.151732	.4615719
#3	3.216866	121.6370	.1818011	-.019087	28.76891	1.155722	.4638873

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.873073	.9874104	.0027657	-.009879	6.399447	1.771369	8.977585
Stddev	.015821	.0044730	.0003575	.000299	.013793	.014712	.013114
%RSD	.8446404	.4530032	12.92729	3.027518	.2155389	.8305333	.1460751
#1	1.874077	.9889364	.0024519	-.009921	6.410693	1.780888	8.973059
#2	1.888367	.9823741	.0031550	-.010155	6.403590	1.778794	8.967333
#3	1.856774	.9909208	.0026903	-.009561	6.384057	1.754424	8.992362

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1730-13 Acquired: 4/14/2025 19:36:23 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.629716	.2755084	.3941721
Stddev	.016248	.0010439	.0011737
%RSD	.2886083	.3788853	.2977517
#1	5.645370	.2761911	.3949116
#2	5.612934	.2760273	.3947859
#3	5.630843	.2743067	.3928188

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3017.110	75541.51	16455.49	2037.350	3611.890
Stddev	5.807	84.58	83.17	4.784	7.693
%RSD	.1924799	.1119606	.5054094	.2348085	.2130017
#1	3021.908	75632.63	16466.20	2039.898	3611.486
#2	3018.769	75465.51	16532.79	2040.320	3619.777
#3	3010.654	75526.39	16367.49	2031.831	3604.406

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1730-15 Acquired: 4/14/2025 19:40:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0329093	-.018477	.0455543	-.001518	-.014372	155.7294	.1950071
Stddev	.0034764	.001354	.0038413	.003846	.004280	.1419	.0006654
%RSD	10.56366	7.325189	8.432322	253.3233	29.77952	.0911276	.3412131
#1	.0329111	-.017100	.0459180	.002777	-.010741	155.8169	.1957379
#2	.0363849	-.019806	.0415441	-.002689	-.013284	155.5657	.1948471
#3	.0294320	-.018526	.0492008	-.004642	-.019091	155.8056	.1944363

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0066739	.0041801	174.3030	.0376958	.2978910	.6901223	485.2543
Stddev	.0001683	.0005874	.7177	.0003616	.0011223	.0019471	1.3900
%RSD	2.521821	14.05300	.4117733	.9591873	.3767336	.2821382	.2864555
#1	.0068677	.0036275	174.8191	.0373114	.2974517	.6878867	486.4359
#2	.0065649	.0041158	174.6064	.0377467	.2970549	.6910335	485.6042
#3	.0065890	.0047971	173.4834	.0380292	.2991665	.6914467	483.7227

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.190478	122.2350	.1915317	-.018009	34.57621	1.258926	.4965192
Stddev	.012880	.6100	.0005551	.000605	.24409	.003172	.0019094
%RSD	.4036957	.4990452	.2898297	3.362188	.7059551	.2519404	.3845661
#1	3.203267	122.7331	.1911436	-.017674	34.66874	1.260702	.4982705
#2	3.190659	122.4172	.1921676	-.017644	34.29938	1.260811	.4944835
#3	3.177509	121.5547	.1912841	-.018708	34.76051	1.255264	.4968037

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.255519	1.256586	.0020498	-.012805	8.115955	5.626051	9.059845
Stddev	.015032	.006801	.0001502	.002616	.014763	.040780	.009020
%RSD	.6664403	.5411941	7.329208	20.42977	.1819019	.7248376	.0995567
#1	2.238180	1.264166	.0019118	-.015566	8.132311	5.609027	9.052491
#2	2.264878	1.254569	.0020277	-.012485	8.111936	5.596541	9.057135
#3	2.263499	1.251021	.0022098	-.010364	8.103617	5.672584	9.069909

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1730-15 Acquired: 4/14/2025 19:40:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.818940	.2888084	.3948791
Stddev	.019080	.0007442	.0008693
%RSD	.3278999	.2576714	.2201429
#1	5.798607	.2884773	.3958521
#2	5.821760	.2882873	.3941791
#3	5.836453	.2896607	.3946060

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2941.396	72621.98	16296.09	1943.359	3550.087
Stddev	4.547	102.14	86.46	8.621	6.586
%RSD	.1545998	.1406465	.5305808	.4436257	.1855291
#1	2946.568	72656.73	16271.57	1951.346	3557.578
#2	2939.594	72702.21	16224.54	1944.511	3547.483
#3	2938.026	72507.00	16392.17	1934.219	3545.201

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1730-17 Acquired: 4/14/2025 19:44:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0437427	-.017035	.0565504	-.004895	-.019784	176.9772	.1230659
Stddev	.0026707	.002924	.0021833	.003199	.002199	.0263	.0008834
%RSD	6.105404	17.16667	3.860769	65.35601	11.11647	.0148418	.7178130
#1	.0467181	-.013831	.0540548	-.004008	-.017900	176.9924	.1220797
#2	.0429567	-.019561	.0581075	-.002233	-.022201	176.9923	.1233334
#3	.0415532	-.017712	.0574890	-.008445	-.019251	176.9469	.1237847

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0077705	.0120604	180.1882	.0440167	.3334801	.8156185	492.1047
Stddev	.0001255	.0016720	.3606	.0001686	.0033519	.0073775	4.7609
%RSD	1.615543	13.86320	.2001391	.3831089	1.005130	.9045327	.9674483
#1	.0076343	.0102018	179.8842	.0438234	.3302402	.8087930	495.7027
#2	.0077956	.0134422	180.0937	.0441340	.3369338	.8234457	493.9052
#3	.0078816	.0125373	180.5866	.0440926	.3332662	.8146167	486.7062

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.135931	145.7706	.2377664	-.025434	38.72173	1.335215	.4976899
Stddev	.010997	.1070	.0017239	.000801	.16416	.001515	.0030226
%RSD	.3506662	.0734050	.7250513	3.151024	.4239459	.1134379	.6073162
#1	3.123745	145.6613	.2367394	-.024584	38.67962	1.333977	.5009241
#2	3.138934	145.8751	.2397567	-.025542	38.90284	1.336904	.4949366
#3	3.145114	145.7754	.2368032	-.026176	38.58272	1.334764	.4972090

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.743636	1.801350	.0044953	-.013418	8.480717	4.497588	9.575370
Stddev	.012080	.012966	.0001653	.001236	.013210	.020623	.107601
%RSD	.4402877	.7198054	3.677913	9.208505	.1557623	.4585450	1.123729
#1	2.729690	1.813487	.0043107	-.013349	8.466487	4.496497	9.495769
#2	2.750818	1.802874	.0046298	-.014686	8.483076	4.518736	9.697789
#3	2.750401	1.787689	.0045453	-.012218	8.492589	4.477532	9.532552

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1730-17 Acquired: 4/14/2025 19:44:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	11.15629	.3133121	.4831548
Stddev	.12804	.0019625	.0011322
%RSD	1.147707	.6263646	.2343243
#1	11.08386	.3143970	.4818636
#2	11.30413	.3144926	.4836234
#3	11.08088	.3110467	.4839774

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2911.354	72908.17	15328.09	1971.244	3474.089
Stddev	22.974	234.68	35.42	13.562	37.039
%RSD	.7891296	.3218872	.2310654	.6879877	1.066155
#1	2929.904	72725.03	15328.37	1955.682	3507.579
#2	2885.655	72826.78	15363.37	1980.540	3434.307
#3	2918.503	73172.72	15292.53	1977.511	3480.380

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1730-19 Acquired: 4/14/2025 19:49:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0682494	-.014648	.0738163	-.008990	-.024351	195.0446	.2819750
Stddev	.0008355	.008546	.0012560	.002312	.001080	2.3000	.0002360
%RSD	1.224197	58.34485	1.701507	25.71401	4.434953	1.179226	.0836795
#1	.0686730	-.017974	.0751694	-.010156	-.023112	195.4823	.2821660
#2	.0672869	-.004938	.0735918	-.010487	-.025092	192.5572	.2820477
#3	.0687882	-.021030	.0726877	-.006328	-.024849	197.0944	.2817112

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0096703	.0204692	200.7648	.0549085	.4118991	.8000882	593.5573
Stddev	.0000921	.0004147	.4596	.0000327	.0017467	.0021042	3.4470
%RSD	.9520627	2.025729	.2289479	.0596045	.4240575	.2629944	.5807307
#1	.0097445	.0207937	200.9997	.0548882	.4105713	.7982647	590.8561
#2	.0096992	.0206118	201.0595	.0549463	.4112483	.7996093	592.3763
#3	.0095673	.0200020	200.2351	.0548910	.4138778	.8023905	597.4396

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.840230	181.0750	.2634401	-.035202	27.25232	1.536464	.5590858
Stddev	.025226	.4007	.0001323	.001331	.02553	.001023	.0015428
%RSD	.4319288	.2213160	.0502228	3.780186	.0936954	.0665896	.2759574
#1	5.855096	181.2829	.2635815	-.036082	27.25951	1.536319	.5579248
#2	5.854491	181.3291	.2633193	-.035852	27.27349	1.537552	.5608365
#3	5.811104	180.6130	.2634197	-.033671	27.22396	1.535521	.5584961

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.365584	.9601175	.0015934	-.011200	8.124681	4.830954	10.17357
Stddev	.015090	.0065805	.0004238	.000521	.022328	.015620	.03181
%RSD	.6379008	.6853835	26.59924	4.647539	.2748178	.3233278	.3126393
#1	2.357864	.9548858	.0019595	-.011751	8.138936	4.842408	10.14568
#2	2.355915	.9579609	.0016917	-.011133	8.136158	4.813161	10.16683
#3	2.382972	.9675056	.0011291	-.010717	8.098949	4.837294	10.20821

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1730-19 Acquired: 4/14/2025 19:49:01 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	18.59054	.3414349	.5091869
Stddev	.06079	.0016145	.0010105
%RSD	.3269805	.4728603	.1984572
#1	18.53488	.3408573	.5094954
#2	18.58135	.3401887	.5100072
#3	18.65540	.3432588	.5080581

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3065.530	75147.17	15600.57	2048.131	3510.557
Stddev	7.470	102.45	34.71	7.515	10.538
%RSD	.2436704	.1363367	.2224612	.3668982	.3001799
#1	3074.048	75254.82	15588.16	2045.611	3521.720
#2	3062.449	75050.86	15573.78	2056.582	3509.168
#3	3060.094	75135.82	15639.77	2042.200	3500.782

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1736-01 Acquired: 4/14/2025 19:53:22 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5214984	.0160103	3.233274	.0090663	.0434427	78.00938	1.238149
Stddev	.0016629	.0027456	.005727	.0025170	.0037888	.04593	.001019
%RSD	.3188612	17.14914	.1771121	27.76209	8.721340	.0588722	.0822824
#1	.5211991	.0188818	3.227318	.0090124	.0430564	78.00214	1.237183
#2	.5232906	.0157381	3.238740	.0065767	.0474098	78.05849	1.238050
#3	.5200055	.0134109	3.233765	.0116099	.0398618	77.96750	1.239213

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0106080	.0037934	39.16954	.1741463	.0977459	3.375954	198.9380
Stddev	.0001074	.0003116	.16619	.0009277	.0003392	.004885	.1597
%RSD	1.012728	8.213355	.4242755	.5327387	.3469905	.1447125	.0802727
#1	.0104841	.0037931	38.99072	.1731560	.0981340	3.372521	199.0199
#2	.0106757	.0041051	39.31924	.1749954	.0975976	3.373792	198.7539
#3	.0106642	.0034820	39.19866	.1742873	.0975062	3.381547	199.0400

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.291876	19.02304	.9399311	-.003383	5.727703	.4029194	1.734250
Stddev	.006720	.08734	.0006314	.000289	.027829	.0012919	.007435
%RSD	.5201572	.4591389	.0671695	8.532766	.4858629	.3206346	.4287246
#1	1.286679	18.93086	.9396987	-.003052	5.729603	.4027041	1.730797
#2	1.299465	19.10457	.9394489	-.003513	5.698973	.4017486	1.729169
#3	1.289484	19.03367	.9406457	-.003583	5.754534	.4043054	1.742784

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.109698	-.157772	.0216530	.1615731	4.586878	8.971607	4.519486
Stddev	.050289	.002485	.0004486	.0007478	.011671	.026616	.015666
%RSD	.5520335	1.575034	2.071683	.4628294	.2544477	.2966685	.3466297
#1	9.159713	-.155244	.0214338	.1615899	4.574790	8.983260	4.501434
#2	9.059140	-.160211	.0221691	.1608170	4.598082	8.941152	4.527512
#3	9.110241	-.157860	.0213562	.1623123	4.587761	8.990410	4.529512

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1736-01 Acquired: 4/14/2025 19:53:22 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	6.698146	.2214785	.3456523
Stddev	.014942	.0008786	.0003380
%RSD	.2230700	.3966959	.0977779
#1	6.691929	.2206975	.3455140
#2	6.687318	.2213083	.3460375
#3	6.715193	.2224298	.3454054

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3174.502	78377.75	15650.10	2146.025	4101.766
Stddev	2.728	149.89	90.03	14.959	3.723
%RSD	.0859488	.1912464	.5752399	.6970723	.0907739
#1	3177.520	78439.35	15751.00	2145.202	4104.083
#2	3172.211	78487.03	15577.98	2161.379	4097.472
#3	3173.774	78206.87	15621.34	2131.494	4103.745

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCV07 Acquired: 4/14/2025 19:57:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.739969	4.851607	4.817307	4.770278	4.812637	9.537342	9.614462
Stddev	.012952	.011829	.006478	.015340	.012967	.014382	.118876
%RSD	.2732442	.2438157	.1344637	.3215738	.2694263	.1507932	1.236431
#1	4.725033	4.839743	4.814985	4.752565	4.798207	9.551798	9.687342
#2	4.748096	4.851677	4.812311	4.779166	4.823310	9.537193	9.477285
#3	4.746779	4.863401	4.824626	4.779102	4.816395	9.523036	9.678758

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2395969	2.432195	24.00203	.9739638	2.442577	1.219351	4.830539
Stddev	.0008582	.001095	.07836	.0022779	.001436	.001746	.023805
%RSD	.3581814	.0450348	.3264527	.2338764	.0587935	.1431963	.4928018
#1	.2402729	2.432763	23.92445	.9754634	2.441930	1.217654	4.804940
#2	.2398863	2.430932	24.08114	.9713426	2.441579	1.219256	4.834668
#3	.2386314	2.432890	24.00049	.9750853	2.444223	1.221143	4.852009

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.384481	23.71329	2.420012	1.202730	25.44156	2.397176	2.397697
Stddev	.009861	.09879	.001231	.003038	.11167	.003665	.015451
%RSD	.4135395	.4165846	.0508801	.2525653	.4389157	.1528831	.6444180
#1	2.373812	23.62839	2.420164	1.206150	25.40575	2.393653	2.380291
#2	2.386371	23.82171	2.418712	1.201693	25.35219	2.400968	2.409791
#3	2.393260	23.68977	2.421160	1.200346	25.56674	2.396907	2.403010

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.32863	4.783555	4.893457	4.861328	4.759175	4.762692	4.868732
Stddev	.07458	.016258	.006538	.009895	.009550	.022140	.003133
%RSD	.2944320	.3398744	.1336162	.2035515	.2006559	.4648586	.0643516
#1	25.27123	4.795835	4.887401	4.852797	4.750393	4.741530	4.868109
#2	25.30175	4.789712	4.892581	4.859010	4.757791	4.760851	4.865958
#3	25.41292	4.765118	4.900390	4.872176	4.769341	4.785695	4.872130

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCV07 Acquired: 4/14/2025 19:57:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV07 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.793343	4.732766	4.846313
Stddev	.003484	.013242	.042312
%RSD	.0726889	.2797978	.8730843
#1	4.797268	4.736010	4.894760
#2	4.790616	4.718203	4.816611
#3	4.792145	4.744085	4.827569

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2762.343	66677.15	13164.13	1800.767	4129.906
Stddev	6.038	107.71	29.86	9.815	6.504
%RSD	.2185697	.1615416	.2268033	.5450520	.1574952
#1	2767.074	66569.75	13133.28	1812.101	4131.760
#2	2764.412	66785.17	13166.24	1795.160	4135.282
#3	2755.543	66676.54	13192.88	1795.041	4122.676

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCB07 Acquired: 4/14/2025 20:01:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0034976	-.000877	-.000099	-.000474	-.000194	-.002874	-.000010
Stddev	.0018325	.000470	.001643	.003618	.001427	.004075	.000769
%RSD	52.39216	53.55152	1664.319	763.2556	735.1405	141.7986	7440.236
#1	.0015575	-.001189	-.001807	.003160	.000574	-.003727	-.000795
#2	.0037363	-.001106	.000040	-.000507	-.001841	-.006455	.000742
#3	.0051990	-.000337	.001471	-.004075	.000685	.001560	.000021

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000009	-.000080	-.008078	.0000355	-.000075	.0000701	-.004624
Stddev	.000006	.000096	.005795	.0003502	.000102	.0003942	.003230
%RSD	69.17331	120.6310	71.74348	986.3185	135.7124	562.5124	69.86392
#1	-.000011	-.000168	-.011840	.0004104	-.000071	.0001516	-.001076
#2	-.000002	.000023	-.010990	-.000021	-.000179	.0004172	-.007396
#3	-.000014	-.000094	-.001404	-.000283	.000025	-.000359	-.005400

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004551	.0096551	-.000117	-.000072	-.057637	.0012183	-.000626
Stddev	.0002614	.0012051	.000090	.000163	.012062	.0012599	.000042
%RSD	57.44111	12.48196	77.32787	226.1988	20.92703	103.4153	6.765566
#1	.0002516	.0106106	-.000030	.000115	-.071525	.0014381	-.000578
#2	.0007499	.0100535	-.000111	-.000187	-.049786	-.000137	-.000644
#3	.0003638	.0083012	-.000210	-.000145	-.051600	.002354	-.000657

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.064363	.0084429	.0001129	-.000653	-.000019	.0198370	.0037768
Stddev	.023160	.0007068	.0000593	.001041	.000170	.0036743	.0005009
%RSD	35.98289	8.370908	52.48870	159.4550	881.2716	18.52222	13.26134
#1	-.039799	.0090125	.0001703	-.000761	-.000002	.0229910	.0032165
#2	-.067488	.0076520	.0000519	.000438	.000141	.0207174	.0041811
#3	-.085801	.0086642	.0001166	-.001635	-.000198	.0158025	.0039328

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCB07 Acquired: 4/14/2025 20:01:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB07 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000292	-.000115	-.000073
Stddev	.001375	.000322	.000024
%RSD	470.2419	278.4372	33.20981
#1	-.000383	.000096	-.000086
#2	-.001620	-.000485	-.000045
#3	.001126	.000043	-.000087

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2853.386	68878.07	13484.87	1857.166	4589.144
Stddev	7.260	265.51	34.10	12.116	11.020
%RSD	.2544343	.3854757	.2528572	.6523837	.2401387
#1	2854.296	68575.82	13452.67	1844.086	4593.716
#2	2860.148	68984.72	13481.35	1859.406	4597.141
#3	2845.713	69073.67	13520.60	1868.005	4576.573

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1736-02 Acquired: 4/14/2025 20:05:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0357268	.0033194	.1266165	-.000634	-.008107	68.21739	.7304124
Stddev	.0022668	.0034425	.0009790	.002099	.000822	.21705	.0020928
%RSD	6.344837	103.7092	.7732352	330.8471	10.14155	.3181670	.2865294
#1	.0339780	.0051569	.1259609	.000828	-.007162	68.46763	.7325588
#2	.0382878	.0054532	.1261467	.000308	-.008499	68.10421	.7303010
#3	.0349146	-.000652	.1277419	-.003039	-.008659	68.08033	.7283776

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0077168	.0026171	22.84581	.1620819	.1011475	.1902507	186.4165
Stddev	.0002132	.0000878	.07145	.0003945	.0006556	.0008964	.6853
%RSD	2.762568	3.356719	.3127638	.2433885	.6481305	.4711534	.3676070
#1	.0079533	.0027157	22.85773	.1616266	.1017653	.1909373	185.8823
#2	.0075396	.0025473	22.76915	.1622970	.1004598	.1905781	187.1892
#3	.0076574	.0025883	22.91056	.1623221	.1012174	.1892366	186.1781

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.363019	37.32232	.2014873	-.008782	4.104690	.2517842	.3984490
Stddev	.006768	.21542	.0002246	.000548	.045592	.0001290	.0015680
%RSD	.2863981	.5771932	.1114769	6.242061	1.110724	.0512525	.3935263
#1	2.365545	37.32720	.2016155	-.009368	4.095463	.2518889	.3970015
#2	2.355351	37.10449	.2016185	-.008281	4.154189	.2518237	.3982307
#3	2.368160	37.53525	.2012280	-.008698	4.064417	.2516401	.4001147

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.24179	-.177345	.0026996	.0019470	2.396567	7.850844	8.579291
Stddev	.09839	.003678	.0003927	.0001065	.004101	.047407	.003669
%RSD	.8751795	2.073648	14.54541	5.471358	.1711115	.6038409	.0427625
#1	11.22701	-.178210	.0031301	.0018458	2.400600	7.816713	8.580710
#2	11.34674	-.173312	.0023611	.0020581	2.392402	7.904973	8.575124
#3	11.15164	-.180513	.0026077	.0019372	2.396700	7.830846	8.582038

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1736-02 Acquired: 4/14/2025 20:05:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0803317	.2404559	.0958163
Stddev	.0043565	.0010237	.0003861
%RSD	5.423167	.4257317	.4029271
#1	.0765696	.2412392	.0961856
#2	.0793206	.2408310	.0958479
#3	.0851048	.2392976	.0954154

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3297.059	82384.39	16091.40	2176.096	4120.030
Stddev	7.469	88.76	109.24	3.084	3.763
%RSD	.2265442	.1077398	.6788433	.1417127	.0913355
#1	3288.697	82472.32	16057.66	2179.633	4115.689
#2	3299.409	82294.82	16213.52	2174.691	4122.364
#3	3303.071	82386.02	16003.01	2173.966	4122.037

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1738-01 Acquired: 4/14/2025 20:10:04 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0360174	-.030433	.1613473	-.004993	-.010014	131.7801	.3688018
Stddev	.0025180	.002305	.0008490	.004112	.004745	.0611	.0014111
%RSD	6.990970	7.574603	.5261877	82.36737	47.38478	.0464015	.3826063
#1	.0341167	-.033021	.1604142	-.003694	-.014263	131.7848	.3693389
#2	.0388732	-.029675	.1615532	-.001687	-.010887	131.8388	.3698655
#3	.0350624	-.028602	.1620743	-.009598	-.004893	131.7168	.3672011

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0074997	.0073285	98.62922	.2428619	.1964992	.5686092	275.3257
Stddev	.0001076	.0003515	.33448	.0009331	.0011572	.0017045	1.2531
%RSD	1.434001	4.796841	.3391252	.3842206	.5889013	.2997655	.4551256
#1	.0073874	.0073296	98.59303	.2437870	.1976511	.5672869	276.4666
#2	.0075099	.0069764	98.98033	.2428778	.1953368	.5680079	275.5259
#3	.0076018	.0076795	98.31432	.2419210	.1965099	.5705329	273.9845

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.383421	73.46481	.2687797	-.015645	11.43344	.6379595	.4897779
Stddev	.017104	.32300	.0008014	.000213	.06952	.0018394	.0016573
%RSD	.5055103	.4396651	.2981826	1.359703	.6080422	.2883213	.3383844
#1	3.385850	73.38732	.2693487	-.015410	11.50058	.6372972	.4881849
#2	3.399181	73.81951	.2678632	-.015701	11.43799	.6400383	.4896559
#3	3.365233	73.18761	.2691273	-.015824	11.36176	.6365430	.4914929

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.75290	-.193696	.0166848	-.015268	9.463373	12.93143	10.44561
Stddev	.06519	.007724	.0002183	.000463	.021584	.06776	.01082
%RSD	.4739760	3.987693	1.308160	3.030824	.2280818	.5239885	.1036162
#1	13.82710	-.187152	.0169232	-.014759	9.470672	13.00893	10.45102
#2	13.72676	-.202216	.0166363	-.015381	9.480361	12.90201	10.45267
#3	13.70484	-.191720	.0164948	-.015663	9.439085	12.88336	10.43315

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1738-01 Acquired: 4/14/2025 20:10:04 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	6.362333	.2228156	.1859806
Stddev	.022286	.0008188	.0006567
%RSD	.3502810	.3674544	.3530940
#1	6.387230	.2237311	.1864232
#2	6.344247	.2225623	.1862925
#3	6.355522	.2221535	.1852261

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3112.497	77812.95	15115.67	2119.040	3734.850
Stddev	.602	336.97	49.34	4.125	7.631
%RSD	.0193415	.4330551	.3264136	.1946447	.2043176
#1	3112.683	77439.42	15099.37	2115.069	3726.058
#2	3112.984	77905.31	15076.54	2123.303	3738.736
#3	3111.824	78094.10	15171.09	2118.747	3739.756

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1738-01DUP Acquired: 4/14/2025 20:14:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0377596	-.021498	.1653425	.0020306	-.009083	125.4605	.4059838
Stddev	.0004658	.001164	.0017978	.0013231	.002477	.1625	.0002363
%RSD	1.233687	5.416376	1.087287	65.15589	27.27020	.1294978	.0582153
#1	.0373299	-.021529	.1655575	.0020218	-.011906	125.4863	.4057620
#2	.0382547	-.020318	.1634469	.0007120	-.007272	125.2866	.4062324
#3	.0376942	-.022647	.1670231	.0033581	-.008071	125.6085	.4059569

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0070163	.0007870	65.16445	.2484508	.1746184	.5226065	289.8540
Stddev	.0000967	.0002749	.04691	.0006654	.0002334	.0012199	1.3115
%RSD	1.377805	34.92545	.0719826	.2678068	.1336475	.2334296	.4524540
#1	.0070961	.0004759	65.13237	.2481191	.1745077	.5217822	289.7167
#2	.0070440	.0009971	65.14270	.2480165	.1744609	.5220293	288.6167
#3	.0069088	.0008880	65.21829	.2492168	.1748865	.5240079	291.2288

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.566977	62.30928	.2480445	-.010106	11.20642	.6176051	.4659920
Stddev	.003187	.02451	.0012828	.000273	.02710	.0028699	.0021938
%RSD	.0893591	.0393315	.5171769	2.697260	.2418028	.4646833	.4707699
#1	3.566765	62.31901	.2480975	-.010199	11.20100	.6180066	.4637064
#2	3.570265	62.32743	.2467360	-.010321	11.18243	.6145556	.4680806
#3	3.563900	62.28140	.2493001	-.009799	11.23581	.6202531	.4661889

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.05769	-.114256	.0090724	-.011648	8.884143	7.530538	9.525528
Stddev	.05514	.006374	.0002572	.000483	.007778	.024955	.011760
%RSD	.3232401	5.578988	2.835493	4.149512	.0875529	.3313867	.1234533
#1	17.05669	-.114438	.0091069	-.011209	8.889483	7.522557	9.517043
#2	17.00306	-.120537	.0087997	-.011571	8.875218	7.510549	9.520590
#3	17.11332	-.107793	.0093107	-.012166	8.887727	7.558507	9.538952

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1738-01DUP Acquired: 4/14/2025 20:14:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.674901	.2312016	.1565534
Stddev	.036538	.0012206	.0001230
%RSD	.6438459	.5279555	.0785686
#1	5.649370	.2309301	.1565614
#2	5.658577	.2301395	.1564266
#3	5.716754	.2325351	.1566722

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3245.284	78094.45	16700.11	2130.019	3932.337
Stddev	7.026	354.07	36.67	22.956	7.147
%RSD	.2165106	.4533922	.2195650	1.077754	.1817565
#1	3248.961	78320.98	16741.97	2143.238	3939.726
#2	3249.709	78275.94	16673.71	2143.307	3931.828
#3	3237.182	77686.43	16684.63	2103.512	3925.459

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1738-01LX5 Acquired: 4/14/2025 20:18:43 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0080601	-.001875	.0331434	-.002342	-.000260	28.23629	.0836195
Stddev	.0009915	.003084	.0022956	.002562	.000867	.05465	.0016065
%RSD	12.30163	164.5018	6.926240	109.3903	333.0250	.1935528	1.921228
#1	.0082678	.000701	.0326139	.000602	-.001225	28.17334	.0826775
#2	.0069812	-.001033	.0356575	-.004065	.000452	28.26400	.0827064
#3	.0089313	-.005292	.0311589	-.003564	-.000008	28.27155	.0854744

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0018183	-.001595	22.44786	.0565253	.0375425	.1321693	63.70329
Stddev	.0000593	.000091	.03158	.0004814	.0001384	.0002452	.16335
%RSD	3.259324	5.729200	.1406763	.8515920	.3685056	.1855465	.2564258
#1	.0018661	-.001670	22.41296	.0568894	.0374669	.1320981	63.63657
#2	.0017520	-.001621	22.45616	.0567069	.0374583	.1324422	63.88944
#3	.0018367	-.001493	22.47446	.0559795	.0377021	.1319675	63.58386

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7911783	16.43836	.0524326	-.003558	2.297930	.1468084	.1139265
Stddev	.0021963	.03389	.0003335	.000262	.015515	.0021339	.0008470
%RSD	.2776001	.2061610	.6361404	7.356300	.6751720	1.453518	.7434865
#1	.7887099	16.45716	.0527695	-.003716	2.289780	.1464946	.1131026
#2	.7919082	16.45869	.0521025	-.003703	2.315822	.1448488	.1147949
#3	.7929167	16.39924	.0524257	-.003256	2.288189	.1490818	.1138822

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.965028	-.034799	.0036199	-.004730	2.091074	2.330873	2.021800
Stddev	.027709	.000740	.0001456	.000880	.005594	.009280	.003241
%RSD	.9345380	2.125204	4.022422	18.61160	.2675358	.3981331	.1603013
#1	2.936518	-.034008	.0034828	-.005385	2.084760	2.321721	2.024125
#2	2.966707	-.035473	.0037728	-.003729	2.095413	2.340275	2.018098
#3	2.991860	-.034917	.0036042	-.005074	2.093050	2.330622	2.023178

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1738-01LX5 Acquired: 4/14/2025 20:18:43 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.194691	.0503516	.0410925
Stddev	.009590	.0012301	.0001212
%RSD	.8027303	2.443053	.2950328
#1	1.195206	.0489429	.0409633
#2	1.184854	.0508989	.0411105
#3	1.204013	.0512131	.0412037

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2894.953	70049.02	13723.36	1899.372	4231.590
Stddev	2.092	302.69	41.12	9.788	4.583
%RSD	.0722770	.4321051	.2996108	.5153183	.1082965
#1	2892.539	70092.78	13744.30	1904.767	4226.369
#2	2896.244	69726.84	13675.99	1888.074	4234.950
#3	2896.076	70327.45	13749.80	1905.276	4233.450

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1738-01MS Acquired: 4/14/2025 20:22:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6749462	1.796249	1.087420	1.553261	.6452989	126.9699	.5290358
Stddev	.0050053	.007366	.002596	.006826	.0029252	.3647	.0012088
%RSD	.7415873	.4100791	.2387074	.4394545	.4533154	.2872683	.2284854
#1	.6782801	1.788092	1.090377	1.550193	.6419235	126.8527	.5300836
#2	.6691907	1.802414	1.085515	1.548508	.6470969	127.3788	.5293105
#3	.6773680	1.798240	1.086368	1.561083	.6468762	126.6781	.5277133

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1550456	.1966260	82.16361	.5501916	.3694032	.7609441	284.0950
Stddev	.0006741	.0002495	.05683	.0002961	.0003945	.0007051	1.4690
%RSD	.4348089	.1268805	.0691660	.0538156	.1067993	.0926636	.5170785
#1	.1542678	.1964711	82.09799	.5503816	.3697584	.7617580	285.7679
#2	.1554085	.1969138	82.19602	.5503427	.3689786	.7605186	283.0154
#3	.1554606	.1964931	82.19682	.5498504	.3694726	.7605557	283.5018

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.527241	68.34452	.7179644	.0496860	13.75952	.8403848	.6292928
Stddev	.009215	.06449	.0025866	.0007199	.09174	.0008213	.0017281
%RSD	.2612535	.0943673	.3602714	1.448810	.6667295	.0977303	.2746047
#1	3.535717	68.27239	.7195889	.0505062	13.86452	.8398214	.6301012
#2	3.517432	68.36454	.7149816	.0493931	13.71914	.8400058	.6304684
#3	3.528573	68.39662	.7193228	.0491588	13.69490	.8413271	.6273087

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.73348	.0653341	.3408835	.6613144	9.091101	10.51487	15.42587
Stddev	.11992	.0029992	.0007367	.0011948	.019544	.04354	.02620
%RSD	.5052977	4.590618	.2161254	.1806661	.2149812	.4141170	.1698215
#1	23.86056	.0687233	.3414589	.6616834	9.101895	10.56502	15.43705
#2	23.71759	.0630228	.3400532	.6599786	9.102867	10.48668	15.44461
#3	23.62229	.0642561	.3411384	.6622811	9.068540	10.49290	15.39593

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1738-01MS Acquired: 4/14/2025 20:22:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.939832	.3917036	.3277139
Stddev	.009716	.0007400	.0009896
%RSD	.1635742	.1889210	.3019861
#1	5.940158	.3917672	.3284213
#2	5.929957	.3924098	.3281375
#3	5.949381	.3909339	.3265830

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3106.352	76155.68	16011.43	2035.869	3785.832
Stddev	5.234	79.19	82.56	.942	5.460
%RSD	.1684795	.1039788	.5156029	.0462523	.1442339
#1	3111.532	76162.92	16099.53	2035.775	3789.941
#2	3106.458	76231.00	15998.92	2034.978	3787.918
#3	3101.066	76073.13	15935.85	2036.854	3779.636

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1738-01MSD Acquired: 4/14/2025 20:26:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6848106	1.813439	1.101157	1.576060	.6438916	129.1230	.5353973
Stddev	.0022923	.015409	.004637	.003419	.0023339	.4253	.0006937
%RSD	.3347371	.8496893	.4210920	.2169172	.3624676	.3293677	.1295692
#1	.6871929	1.827271	1.098711	1.576068	.6431980	129.4735	.5351065
#2	.6846186	1.796831	1.098255	1.572637	.6464937	129.2456	.5348964
#3	.6826203	1.816214	1.106505	1.579475	.6419832	128.6499	.5361891

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1662680	.2030547	77.26593	.5490344	.3746029	.7782700	269.5797
Stddev	.0004914	.0003992	.03055	.0003980	.0015073	.0010707	.6251
%RSD	.2955353	.1966104	.0395435	.0724862	.4023641	.1375724	.2318879
#1	.1667772	.2033514	77.25629	.5494474	.3749532	.7776633	268.9334
#2	.1662302	.2026008	77.30014	.5486534	.3729514	.7776404	269.6245
#3	.1657966	.2032118	77.24136	.5490023	.3759043	.7795062	270.1812

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.606018	67.53249	.7285509	.0464979	12.86239	.8472740	.6314330
Stddev	.000897	.15286	.0017375	.0006802	.04950	.0035818	.0008476
%RSD	.0248699	.2263504	.2384833	1.462837	.3848275	.4227391	.1342298
#1	3.605878	67.69454	.7280170	.0466374	12.81523	.8511653	.6323298
#2	3.605199	67.51205	.7271431	.0470975	12.85801	.8465417	.6306452
#3	3.606976	67.39088	.7304927	.0457588	12.91393	.8441150	.6313240

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.78379	-.005733	.3355967	.6583411	9.182357	9.932246	15.63832
Stddev	.05760	.008764	.0003713	.0017180	.010548	.014260	.05433
%RSD	.2527983	152.8900	.1106414	.2609522	.1148713	.1435740	.3474449
#1	22.71731	-.012740	.3360183	.6578006	9.192836	9.916246	15.64731
#2	22.81554	-.008553	.3353186	.6602643	9.182494	9.943616	15.58005
#3	22.81853	.004095	.3354530	.6569584	9.171741	9.936875	15.68759

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1738-01MSD Acquired: 4/14/2025 20:26:57 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	6.063655	.3929438	.3247760
Stddev	.022055	.0010704	.0002877
%RSD	.3637165	.2724115	.0885955
#1	6.059642	.3922517	.3249970
#2	6.043882	.3924030	.3248804
#3	6.087440	.3941767	.3244507

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3092.344	76876.50	15072.36	2061.096	3742.018
Stddev	1.124	101.51	43.39	2.239	6.363
%RSD	.0363595	.1320485	.2878690	.1086215	.1700493
#1	3091.058	76953.66	15046.68	2061.028	3742.934
#2	3093.142	76761.50	15047.93	2063.368	3747.873
#3	3092.831	76914.33	15122.45	2058.892	3735.246

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1738-01A Acquired: 4/14/2025 20:30:56 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6737455	1.798329	1.085629	1.545951	.6324874	128.2800	.5434386
Stddev	.0021351	.001750	.002132	.006603	.0012037	.4813	.0034224
%RSD	.3169019	.0973092	.1963868	.4271035	.1903101	.3752087	.6297644
#1	.6718396	1.798883	1.088074	1.547883	.6313851	127.8009	.5394868
#2	.6733440	1.799736	1.084158	1.538598	.6323055	128.2756	.5453917
#3	.6760528	1.796370	1.084654	1.551373	.6337717	128.7635	.5454372

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1567544	.1972968	84.46039	.5412666	.3742955	.7704559	285.3847
Stddev	.0009459	.0001600	.47000	.0024947	.0005918	.0015537	.3450
%RSD	.6034214	.0810698	.5564741	.4609065	.1581151	.2016545	.1209024
#1	.1567288	.1974627	84.35027	.5419996	.3749611	.7691727	285.5032
#2	.1558216	.1971435	84.05523	.5384875	.3738285	.7700117	285.6549
#3	.1577128	.1972843	84.97567	.5433128	.3740969	.7721832	284.9960

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.597614	68.91071	.7241513	.0482868	14.11144	.8511441	.6260279
Stddev	.015319	.52350	.0016086	.0003706	.14775	.0060452	.0022907
%RSD	.4258040	.7596761	.2221312	.7675338	1.046994	.7102413	.3659021
#1	3.589571	68.87328	.7249940	.0484905	14.01849	.8475008	.6268550
#2	3.587992	68.40694	.7222964	.0478590	14.28180	.8478093	.6234385
#3	3.615279	69.45193	.7251633	.0485108	14.03401	.8581222	.6277900

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.66546	.0882419	.3337254	.6528534	9.282276	11.24841	15.72056
Stddev	.18665	.0036483	.0012636	.0018392	.031576	.01861	.02255
%RSD	.7887223	4.134411	.3786475	.2817191	.3401721	.1654785	.1434292
#1	23.54554	.0887009	.3330990	.6549273	9.247602	11.24423	15.72911
#2	23.88052	.0916389	.3328974	.6514203	9.289850	11.26876	15.69499
#3	23.57034	.0843858	.3351799	.6522126	9.309375	11.23225	15.73758

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1738-01A Acquired: 4/14/2025 20:30:56 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	6.064254	.3967302	.3356905
Stddev	.007869	.0019199	.0015967
%RSD	.1297611	.4839218	.4756450
#1	6.070815	.3945134	.3339041
#2	6.055530	.3978221	.3369787
#3	6.066418	.3978550	.3361886

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3128.035	77412.78	15941.86	2113.521	3764.197
Stddev	3.523	95.64	127.16	6.120	3.435
%RSD	.1126330	.1235418	.7976790	.2895600	.0912533
#1	3131.698	77387.75	15957.18	2110.844	3763.842
#2	3127.735	77518.45	16060.67	2120.524	3767.795
#3	3124.671	77332.15	15807.73	2109.196	3760.953

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1746-02 Acquired: 4/14/2025 20:34:54 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002712	-.006704	.0231923	.0062399	.0024254	.0186220	.1903767
Stddev	.001502	.001146	.0014914	.0016062	.0024011	.0019256	.0002551
%RSD	55.40580	17.08990	6.430385	25.74019	98.99920	10.34065	.1340159
#1	-.000989	-.006019	.0244933	.0044287	-.000248	.0164230	.1906684
#2	-.003753	-.008027	.0215647	.0067996	.004398	.0194359	.1901954
#3	-.003393	-.006067	.0235189	.0074913	.003126	.0200070	.1902662

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000148	.0004403	22.92700	-.000348	.0096162	.0234209	.0088665
Stddev	.000019	.0000060	.10196	.000395	.0000787	.0002477	.0041136
%RSD	13.03064	1.361954	.4447041	113.4768	.8181029	1.057773	46.39451
#1	-.000161	.0004452	22.99785	-.000435	.0096988	.0232408	.0123253
#2	-.000157	.0004336	22.97299	-.000693	.0096077	.0233186	.0099565
#3	-.000126	.0004421	22.81014	.000083	.0095421	.0237035	.0043177

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3476248	1.446247	.0048341	-.000610	293.6313	.0009166	.1304586
Stddev	.0007862	.010518	.0001289	.000136	4.4714	.0005510	.0007897
%RSD	.2261705	.7272553	2.666431	22.27585	1.522796	60.11362	.6053002
#1	.3471668	1.443630	.0046857	-.000728	289.5303	.0009507	.1304304
#2	.3485326	1.457827	.0049179	-.000640	292.9652	.0003493	.1296835
#3	.3471749	1.437286	.0048987	-.000461	298.3984	.0014498	.1312620

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.155767	.0259404	-.000080	-.001774	-.000643	.4055697	.0120605
Stddev	.005261	.0004285	.000416	.000745	.000174	.0084666	.0002472
%RSD	.4551914	1.651999	519.5060	42.01530	27.08862	2.087586	2.049891
#1	1.150992	.0263148	.000356	-.001680	-.000574	.4124892	.0121325
#2	1.154903	.0254730	-.000473	-.001080	-.000514	.3961288	.0122638
#3	1.161407	.0260333	-.000123	-.002562	-.000841	.4080911	.0117853

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1746-02 Acquired: 4/14/2025 20:34:54 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2323246	-.005026	.0767031
Stddev	.0017515	.000508	.0002288
%RSD	.7538858	10.10706	.2983006
#1	.2303677	-.005582	.0768354
#2	.2328608	-.004907	.0764389
#3	.2337453	-.004587	.0768349

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2659.908	64633.65	13253.00	1768.648	3951.158
Stddev	8.762	122.21	95.75	6.082	10.640
%RSD	.3294238	.1890867	.7224675	.3438984	.2692785
#1	2663.801	64501.30	13156.21	1763.010	3956.715
#2	2666.049	64742.23	13255.10	1775.094	3957.869
#3	2649.873	64657.41	13347.68	1767.839	3938.891

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1746-04 Acquired: 4/14/2025 20:39:21 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000871	-.006989	.0051315	.0038715	.0016842	.0842722	.0873023
Stddev	.003501	.002975	.0008358	.0028142	.0019331	.0031409	.0006166
%RSD	401.8471	42.56924	16.28777	72.68964	114.7816	3.727124	.7062260
#1	.001393	-.006870	.0043107	.0068500	.0024852	.0832531	.0870429
#2	-.004904	-.010021	.0059816	.0035074	-.000521	.0877961	.0880061
#3	.000897	-.004075	.0051022	.0012571	.003088	.0817674	.0868578

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000050	-.000145	2.599758	.0016181	.0002056	.0099001	.1181476
Stddev	.000050	.000111	.006932	.0001841	.0000477	.0002194	.0031216
%RSD	100.5513	76.78947	.2666243	11.37834	23.21552	2.215684	2.642084
#1	-.000055	-.000238	2.604582	.0017167	.0002323	.0098033	.1197116
#2	.000003	-.000176	2.602877	.0017320	.0001505	.0097458	.1201781
#3	-.000097	-.000021	2.591815	.0014057	.0002340	.0101512	.1145532

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0507781	1.645856	.0022014	-.000438	286.0465	.0020258	.0385684
Stddev	.0003936	.006381	.0002315	.000081	1.6225	.0006519	.0005244
%RSD	.7752169	.3876737	10.51432	18.60476	.5672019	32.17914	1.359660
#1	.0505296	1.641304	.0019706	-.000466	284.4964	.0012901	.0380253
#2	.0505727	1.643116	.0024335	-.000346	287.7328	.0022557	.0390718
#3	.0512319	1.653149	.0022002	-.000501	285.9104	.0025315	.0386083

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.542602	.0355685	.0002455	-.000095	-.000241	.4509572	.0169862
Stddev	.015484	.0003709	.0001569	.000399	.000199	.0063085	.0007718
%RSD	.4370716	1.042801	63.91107	419.0754	82.66469	1.398914	4.543914
#1	3.546225	.0359123	.0003831	-.000307	-.000427	.4574233	.0168305
#2	3.525628	.0356180	.0002788	-.000343	-.000265	.4448190	.0178240
#3	3.555952	.0351754	.0000746	.000365	-.000031	.4506294	.0163041

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1746-04 Acquired: 4/14/2025 20:39:21 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.296292	-.002674	.0311079
Stddev	.006641	.000348	.0000856
%RSD	.5122756	12.99981	.2752241
#1	1.290034	-.002405	.0310756
#2	1.295583	-.003067	.0310431
#3	1.303258	-.002552	.0312049

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2639.446	64737.29	13069.76	1732.216	3971.180
Stddev	5.995	62.29	50.16	6.441	1.810
%RSD	.2271328	.0962162	.3837607	.3718337	.0455692
#1	2644.148	64800.50	13126.07	1733.619	3972.889
#2	2641.495	64735.39	13029.89	1737.841	3969.284
#3	2632.695	64675.97	13053.31	1725.190	3971.365

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1749-04 Acquired: 4/14/2025 20:43:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001575	-.007013	.7401223	.0057888	.0007826	.1247785	.4887302
Stddev	.001304	.001866	.0012005	.0044189	.0006480	.0027973	.0010496
%RSD	82.76040	26.61170	.1622042	76.33577	82.80264	2.241838	.2147544
#1	-.002637	-.009160	.7388189	.0063435	.0006026	.1239725	.4894611
#2	-.001969	-.005780	.7411828	.0011187	.0002437	.1224726	.4875275
#3	-.000120	-.006099	.7403651	.0099043	.0015017	.1278903	.4892021

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000707	.0012724	6.490445	-.000663	.0087666	.0582287	.3781450
Stddev	.0000456	.0000706	.010047	.000368	.0000973	.0004188	.0039885
%RSD	64.43064	5.547991	.1548006	55.55749	1.109719	.7192228	1.054746
#1	.0001042	.0011986	6.492718	-.000602	.0086644	.0583858	.3736085
#2	.0000188	.0012793	6.479456	-.001058	.0088581	.0577541	.3797252
#3	.0000892	.0013392	6.499161	-.000329	.0087774	.0585463	.3811012

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2178185	.8440260	.0052095	-.000395	358.0805	.0006319	.3584130
Stddev	.0004228	.0145646	.0003593	.000161	2.5035	.0014062	.0011851
%RSD	.1941183	1.725609	6.897858	40.79451	.6991433	222.5263	.3306504
#1	.2174286	.8608050	.0048692	-.000343	360.9509	-.000656	.3580329
#2	.2182680	.8366236	.0051741	-.000576	356.9419	.002132	.3574645
#3	.2177590	.8346492	.0055853	-.000266	356.3486	.000419	.3597415

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7856789	.0848468	-.000298	.0003418	.0013900	.6241779	.0186854
Stddev	.0310257	.0000809	.000240	.0000851	.0003429	.0143979	.0018553
%RSD	3.948908	.0952848	80.48008	24.89678	24.66926	2.306693	9.929368
#1	.7726827	.0848173	-.000382	.0004301	.0010110	.6392732	.0165475
#2	.7632646	.0847849	-.000483	.0003348	.0016788	.6226634	.0198743
#3	.8210892	.0849383	-.000027	.0002604	.0014803	.6105972	.0196344

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1749-04 Acquired: 4/14/2025 20:43:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6364992	-.003663	.0420685
Stddev	.0072302	.000527	.0000939
%RSD	1.135933	14.39838	.2230964
#1	.6325327	-.003489	.0421571
#2	.6321203	-.004255	.0419702
#3	.6448445	-.003244	.0420780

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2602.631	63283.19	14147.40	1701.865	3883.718
Stddev	9.433	81.36	17.81	7.426	9.658
%RSD	.3624218	.1285683	.1258637	.4363298	.2486899
#1	2612.889	63196.78	14126.88	1694.057	3894.840
#2	2600.675	63294.46	14158.77	1708.837	3878.874
#3	2594.330	63358.33	14156.54	1702.702	3877.441

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCV08 Acquired: 4/14/2025 20:48:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV08 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.809971	4.808672	4.850616	4.860363	4.866736	9.595146	9.825123
Stddev	.014069	.014313	.007706	.013416	.020167	.013575	.104085
%RSD	.2925038	.2976424	.1588659	.2760278	.4143798	.1414763	1.059376
#1	4.814429	4.807566	4.856438	4.874979	4.889745	9.581728	9.944952
#2	4.794213	4.823505	4.841877	4.848609	4.852125	9.608873	9.773235
#3	4.821272	4.794944	4.853532	4.857501	4.858339	9.594837	9.757182

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2422426	2.444913	24.08490	.9548701	2.455259	1.232014	4.750123
Stddev	.0006737	.003864	.11101	.0003799	.003828	.004320	.034392
%RSD	.2781107	.1580499	.4609139	.0397879	.1558944	.3506469	.7240140
#1	.2416382	2.446155	23.98808	.9547690	2.457528	1.236952	4.730056
#2	.2429689	2.440581	24.06056	.9545510	2.450840	1.228938	4.730479
#3	.2421207	2.448004	24.20606	.9552903	2.457410	1.230150	4.789834

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.421158	23.60275	2.439996	1.193816	24.01013	2.418098	2.388280
Stddev	.014360	.10878	.002572	.001796	.25223	.005841	.012626
%RSD	.5930983	.4608725	.1054183	.1504375	1.050535	.2415694	.5286469
#1	2.416285	23.48524	2.441158	1.194355	24.06129	2.416229	2.396282
#2	2.409869	23.62310	2.437047	1.191812	23.73624	2.413421	2.373726
#3	2.437320	23.69992	2.441782	1.195281	24.23287	2.424646	2.394833

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.80401	4.892620	4.881787	4.873786	4.835932	4.674634	4.900935
Stddev	.18825	.005001	.008219	.012316	.019138	.031505	.008262
%RSD	.7908293	.1022100	.1683679	.2527037	.3957377	.6739499	.1685854
#1	23.80463	4.888591	4.890608	4.865436	4.830387	4.642071	4.895281
#2	23.61546	4.898216	4.874343	4.867991	4.820180	4.676870	4.897106
#3	23.99195	4.891051	4.880410	4.887931	4.857231	4.704961	4.910417

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCV08 Acquired: 4/14/2025 20:48:13 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV08 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.887681	4.838095	4.984137
Stddev	.002215	.017147	.005853
%RSD	.0453079	.3544162	.1174394
#1	4.889191	4.844261	4.979436
#2	4.885139	4.818718	4.990693
#3	4.888713	4.851307	4.982281

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2752.340	68412.70	13136.24	1850.679	4100.365
Stddev	5.665	146.10	38.09	7.666	7.629
%RSD	.2058086	.2135576	.2899892	.4142004	.1860542
#1	2747.068	68483.95	13174.27	1849.905	4094.058
#2	2758.329	68509.51	13098.09	1858.702	4108.845
#3	2751.623	68244.65	13136.37	1843.430	4098.193

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCB08 Acquired: 4/14/2025 20:52:24 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB08 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0025357	-.000507	.0005442	-.000802	-.000846	-.001181	.0004368
Stddev	.0014699	.000155	.0010656	.003172	.001510	.003506	.0005657
%RSD	57.96727	30.57713	195.8101	395.3369	178.3849	297.0201	129.4924
#1	.0035299	-.000556	.0016614	-.004329	-.000570	-.004733	-.000165
#2	.0008473	-.000632	-.000461	.000103	-.002475	.002278	.000958
#3	.0032300	-.000334	.000432	.001819	.000506	-.001088	.000517

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000278	-.000021	-.003160	.0001083	-.000086	.0001265	-.002938
Stddev	.0000075	.000044	.001518	.0001263	.000221	.0003196	.001191
%RSD	27.11528	209.6359	48.02175	116.6240	258.3054	252.5443	40.53440
#1	.0000198	-.000065	-.001589	.0002534	.000143	-.000234	-.001715
#2	.0000347	.000024	-.004617	.0000229	-.000102	.000241	-.003004
#3	.0000291	-.000022	-.003275	.0000486	-.000298	.000373	-.004094

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002364	.0039872	-.000193	-.000558	-.000666	.0013749	-.000626
Stddev	.0003308	.0134727	.000245	.000489	.004634	.0011312	.000142
%RSD	139.9196	337.8969	127.1436	87.67476	695.7537	82.27197	22.60664
#1	-.000052	-.009573	.000087	-.000379	-.004334	.0000870	-.000697
#2	.000163	.017370	-.000297	-.001111	.004542	.0018304	-.000463
#3	.000598	.004165	-.000368	-.000183	-.002207	.0022074	-.000719

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006289	.0052588	.0000849	-.000683	-.000519	.0131706	.0038200
Stddev	.025379	.0006750	.0001137	.000470	.000438	.0036433	.0029231
%RSD	403.5681	12.83593	133.8013	68.90817	84.32510	27.66234	76.52170
#1	-.016528	.0056383	-.000045	-.000398	-.000065	.0091789	.0004509
#2	-.024948	.0044795	.000135	-.000424	-.000553	.0163167	.0053266
#3	.022610	.0056587	.000165	-.001226	-.000939	.0140164	.0056826

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCB08 Acquired: 4/14/2025 20:52:24 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB08 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0013820	.0017337	-.000024
Stddev	.0012322	.0004150	.000075
%RSD	89.16049	23.93862	312.7553
#1	.0004536	.0015008	-.000004
#2	.0027799	.0022128	.000039
#3	.0009124	.0014873	-.000107

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2862.156	69652.52	13667.55	1925.942	4526.285
Stddev	5.634	289.73	30.96	3.518	7.748
%RSD	.1968457	.4159632	.2265052	.1826599	.1711828
#1	2867.457	69748.50	13641.26	1925.542	4535.231
#2	2856.240	69882.08	13659.73	1929.643	4521.893
#3	2862.772	69326.98	13701.67	1922.641	4521.730

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1746-05 Acquired: 4/14/2025 20:56:43 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0284783	-.003596	.1581714	.0023841	-.000347	75.45145
Stddev	.0034800	.003598	.0017246	.0035456	.002294	.16317
%RSD	12.21986	100.0502	1.090332	148.7194	660.9120	.2162612
#1	.0320166	-.007353	.1601310	.0010022	-.002268	75.27644
#2	.0250597	-.003255	.1568847	.0064125	-.000966	75.59940
#3	.0283585	-.000181	.1574986	-.000262	.002193	75.47851

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5324785	.0053890	-.000376	80.68545	.1578587	.0398858
Stddev	.0041366	.0000453	.000117	.07247	.0002653	.0000179
%RSD	.7768642	.8411409	31.16731	.0898122	.1680595	.0449506
#1	.5280804	.0054396	-.000261	80.76059	.1580593	.0398699
#2	.5362913	.0053751	-.000496	80.61599	.1575579	.0398824
#3	.5330636	.0053522	-.000371	80.67977	.1579589	.0399052

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2127280	97.23189	2.420815	30.39765	.0926892	-.004065
Stddev	.0005049	.28292	.004479	.03890	.0004424	.000287
%RSD	.2373430	.2909777	.1850097	.1279582	.4772660	7.069839
#1	.2132880	96.97370	2.415767	30.44211	.0929279	-.004357
#2	.2125882	97.53433	2.424313	30.36991	.0921788	-.004054
#3	.2123077	97.18763	2.422364	30.38093	.0929610	-.003783

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	149.6081	.1991481	.4459549	18.01223	.0794547	.0129870
Stddev	1.4493	.0011090	.0012680	.14409	.0008518	.0004800
%RSD	.9687429	.5568761	.2843446	.7999614	1.072021	3.695753
#1	148.1412	.1994963	.4444913	17.85725	.0785500	.0127824
#2	151.0392	.2000412	.4466490	18.14214	.0802412	.0126432
#3	149.6439	.1979068	.4467242	18.03731	.0795728	.0135354

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1746-05 Acquired: 4/14/2025 20:56:43 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004069	1.034391	F 49.00616	7.261182	F 48.25829	.0996645
Stddev	.000586	.003110	.21203	.012284	.08203	.0007363
%RSD	14.38988	.3006755	.4326541	.1691688	.1699875	.7387979
#1	-.004274	1.032053	48.76210	7.248052	48.16733	.0988276
#2	-.003408	1.037921	49.14497	7.272393	48.28089	.1002130
#3	-.004524	1.033200	49.11141	7.263102	48.32666	.0999528

Elem	Sr4077
Units	ppm
Avg	.4567405
Stddev	.0024211
%RSD	.5300867
#1	.4541054
#2	.4588667
#3	.4572495

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2885.983	70743.33	14918.03	1921.348	3812.545
Stddev	3.611	43.23	33.74	10.343	5.386
%RSD	.1251380	.0611049	.2261987	.5383303	.1412679
#1	2888.221	70788.26	14893.63	1933.172	3813.278
#2	2887.911	70739.70	14956.54	1913.976	3817.526
#3	2881.817	70702.04	14903.92	1916.896	3806.829

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1746-06 Acquired: 4/14/2025 21:00:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1066247	-.008259	.1792577	.0046240	-.004257	154.6593
Stddev	.0012960	.002115	.0020438	.0014331	.001005	.3027
%RSD	1.215441	25.61162	1.140155	30.99361	23.60662	.1957496
#1	.1077925	-.008950	.1816173	.0061529	-.005411	154.6176
#2	.1068510	-.005884	.1781127	.0033112	-.003573	154.3796
#3	.1052304	-.009941	.1780430	.0044078	-.003787	154.9808

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2876042	.0098326	-.001839	73.92304	.4078651	.1121337
Stddev	.0008214	.0000955	.000257	.31455	.0005341	.0006808
%RSD	.2855866	.9712338	13.95664	.4255089	.1309389	.6071127
#1	.2880519	.0099287	-.001706	73.71508	.4084480	.1113487
#2	.2866563	.0097377	-.002134	73.76913	.4077482	.1124902
#3	.2881044	.0098312	-.001675	74.28491	.4073992	.1125623

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7645195	261.0223	1.513689	77.21482	.2853115	-.007315
Stddev	.0004460	.6152	.006385	.14505	.0008795	.000237
%RSD	.0583354	.2356737	.4218195	.1878539	.3082734	3.237120
#1	.7643272	260.3478	1.508891	77.09546	.2845839	-.007497
#2	.7650294	261.5524	1.511241	77.17275	.2850618	-.007047
#3	.7642020	261.1667	1.520936	77.37626	.2862889	-.007400

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	286.3135	.3955442	1.117617	72.86968	.8551068	.0453757
Stddev	1.0185	.0028605	.003239	.07191	.0037609	.0003453
%RSD	.3557421	.7231852	.2897896	.0986825	.4398204	.7609865
#1	286.3480	.3955770	1.118669	72.84398	.8534319	.0457508
#2	287.3143	.3926674	1.120199	72.95091	.8594143	.0453052
#3	285.2781	.3983881	1.113983	72.81416	.8524744	.0450711

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1746-06 Acquired: 4/14/2025 21:00:52 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005239	4.593436	F 81.24608	12.93084	F 162.5907	.2844751
Stddev	.001315	.017029	.12565	.02936	.2813	.0000305
%RSD	25.10327	.3707205	.1546484	.2270496	.1730128	.0107292
#1	-.006200	4.582030	81.11237	12.89811	162.3305	.2844413
#2	-.003740	4.585267	81.36170	12.93952	162.5524	.2844835
#3	-.005777	4.613010	81.26417	12.95487	162.8892	.2845006

Elem	Sr4077
Units	ppm
Avg	.5518327
Stddev	.0020074
%RSD	.3637718
#1	.5503292
#2	.5510566
#3	.5541123

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2858.690	68967.68	15397.80	1853.734	3627.253
Stddev	2.540	149.34	30.09	4.660	1.659
%RSD	.0888552	.2165399	.1954494	.2513916	.0457446
#1	2855.776	68903.25	15392.69	1850.974	3625.351
#2	2860.435	68861.36	15430.13	1851.113	3628.405
#3	2859.859	69138.42	15370.59	1859.114	3628.003

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1746-06DUP Acquired: 4/14/2025 21:05:04 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1055165	-.005929	.1797321	.0053336	-.003424	155.4792
Stddev	.0011469	.001858	.0018019	.0059266	.002460	.3146
%RSD	1.086970	31.33120	1.002523	111.1201	71.83755	.2023153
#1	.1068407	-.005250	.1785883	.0059544	-.006012	155.6552
#2	.1048327	-.008031	.1818091	-.000879	-.003147	155.6663
#3	.1048762	-.004506	.1787988	.010925	-.001115	155.1160

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2869861	.0100578	.0003009	73.89705	.4076985	.1125263
Stddev	.0011865	.0000776	.0002926	.19910	.0017200	.0006096
%RSD	.4134269	.7718294	97.26425	.2694351	.4218717	.5417703
#1	.2873317	.0099939	.0005215	74.12563	.4065655	.1119715
#2	.2879614	.0101442	-.000031	73.80415	.4096777	.1124284
#3	.2856652	.0100352	.000412	73.76138	.4068524	.1131790

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7737063	253.4104	1.520437	77.66289	.2873264	-.008576
Stddev	.0011021	.9636	.003240	.31802	.0013866	.000427
%RSD	.1424393	.3802699	.2131044	.4094834	.4825810	4.983263
#1	.7739572	252.4868	1.524069	78.02877	.2870039	-.008184
#2	.7725004	254.4096	1.519396	77.50701	.2861294	-.009032
#3	.7746612	253.3348	1.517845	77.45289	.2888458	-.008513

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	279.8352	.3976042	1.119985	70.74420	.8384030	.0456942
Stddev	5.6997	.0003210	.004532	.64139	.0026737	.0005921
%RSD	2.036789	.0807315	.4046704	.9066311	.3189003	1.295836
#1	273.3066	.3979668	1.124299	70.09279	.8369815	.0460256
#2	283.8200	.3974894	1.120394	71.37507	.8414871	.0450105
#3	282.3791	.3973564	1.115262	70.76475	.8367404	.0460463

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1746-06DUP Acquired: 4/14/2025 21:05:04 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003125	4.606227	F 79.07972	12.93888	F 164.0507	.2837283
Stddev	.001079	.008039	.38882	.02128	.5718	.0011225
%RSD	34.53826	.1745209	.4916793	.1644897	.3485541	.3956369
#1	-.004371	4.610847	78.65549	12.91813	163.8277	.2832448
#2	-.002510	4.610889	79.41912	12.93785	163.6239	.2850116
#3	-.002493	4.596944	79.16454	12.96065	164.7003	.2829285

Elem	Sr4077
Units	ppm
Avg	.5514862
Stddev	.0010530
%RSD	.1909404
#1	.5504995
#2	.5525949
#3	.5513642

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2841.428	69552.08	15007.39	1860.170	3603.215
Stddev	3.739	249.91	51.06	9.708	2.611
%RSD	.1315793	.3593109	.3402523	.5218859	.0724764
#1	2843.867	69792.21	14949.13	1850.464	3605.773
#2	2837.124	69293.43	15044.37	1860.165	3600.553
#3	2843.294	69570.62	15028.68	1869.880	3603.320

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1746-06LX5 Acquired: 4/14/2025 21:09:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0238354	-.001843	.0389573	.0004488	-.003531	33.77016
Stddev	.0015457	.002353	.0003480	.0013786	.002603	.08125
%RSD	6.484755	127.7213	.8933318	307.1861	73.72933	.2405880
#1	.0225564	-.003000	.0386580	-.001123	-.006201	33.86196
#2	.0255530	-.003393	.0393392	.001018	-.001000	33.70752
#3	.0233969	.000865	.0388747	.001451	-.003393	33.74101

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0647954	.0023640	-.002014	17.03746	.0916352	.0225908
Stddev	.0007548	.0000486	.000043	.05325	.0003339	.0000676
%RSD	1.164873	2.054403	2.156196	.3125526	.3643882	.2992521
#1	.0644515	.0024199	-.002041	17.04937	.0913189	.0226605
#2	.0642738	.0023328	-.001964	16.97926	.0916025	.0225866
#3	.0656609	.0023391	-.002038	17.08375	.0919843	.0225255

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1811246	56.01169	.3509860	17.32764	.0584383	-.002663
Stddev	.0006932	.07539	.0024088	.12692	.0000697	.000363
%RSD	.3827134	.1346003	.6862906	.7324915	.1193224	13.63097
#1	.1808269	55.96788	.3522023	17.42501	.0584013	-.003075
#2	.1819168	55.96845	.3482115	17.18409	.0583948	-.002391
#3	.1806299	56.09874	.3525440	17.37382	.0585187	-.002523

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	59.19226	.0901974	.2475831	14.45436	.2174924	.0098897
Stddev	.28199	.0008013	.0005508	.03365	.0010909	.0001284
%RSD	.4763992	.8883996	.2224493	.2327898	.5015571	1.297813
#1	59.13748	.0894323	.2469525	14.49282	.2178069	.0097453
#2	59.49763	.0910306	.2478272	14.43991	.2162788	.0099328
#3	58.94168	.0901294	.2479696	14.43035	.2183914	.0099909

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1746-06LX5 Acquired: 4/14/2025 21:09:17 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002377	1.035419	F 16.86427	2.582742	F 32.67543	.0649257
Stddev	.000551	.002224	.03386	.010706	.14019	.0003881
%RSD	23.19563	.2148184	.2007923	.4145189	.4290422	.5977732
#1	-.001787	1.036308	16.83637	2.595013	32.75542	.0644986
#2	-.002879	1.032888	16.85450	2.575305	32.75732	.0650216
#3	-.002464	1.037062	16.90195	2.577909	32.51355	.0652568

Elem	Sr4077
Units	ppm
Avg	.1219029
Stddev	.0003829
%RSD	.3140678
#1	.1223222
#2	.1215718
#3	.1218148

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2874.839	68553.64	14156.22	1878.618	4168.770
Stddev	9.493	116.05	45.20	4.736	18.742
%RSD	.3302086	.1692818	.3193061	.2521173	.4495744
#1	2866.881	68562.32	14115.80	1876.457	4150.770
#2	2872.290	68433.49	14205.03	1884.050	4167.363
#3	2885.346	68665.10	14147.84	1875.348	4188.175

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1746-06MS Acquired: 4/14/2025 21:13:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7913822	1.658658	1.101922	1.589394	.6488981	189.8737
Stddev	.0025187	.005927	.003817	.004254	.0033489	.9204
%RSD	.3182621	.3573364	.3463761	.2676462	.5160946	.4847695
#1	.7938742	1.656331	1.101729	1.584486	.6458687	190.2520
#2	.7888376	1.665396	1.105831	1.592018	.6483315	188.8244
#3	.7914347	1.654248	1.098205	1.591679	.6524942	190.5447

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4931775	.1637218	.1871659	75.83054	.7966997	.3313567
Stddev	.0021232	.0000164	.0010845	.20510	.0026886	.0005288
%RSD	.4305130	.0099849	.5794551	.2704726	.3374702	.1595861
#1	.4908665	.1637047	.1876833	75.70678	.7951505	.3315214
#2	.4936242	.1637236	.1878948	75.71755	.7951443	.3317836
#3	.4950418	.1637372	.1859195	76.06729	.7998042	.3307652

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.239950	335.6314	2.049711	93.20315	.8062192	.0443870
Stddev	.001680	3.0138	.011211	.21354	.0016948	.0007782
%RSD	.1354680	.8979447	.5469610	.2291158	.2102162	1.753200
#1	1.241197	333.3920	2.039428	92.97316	.8051931	.0439542
#2	1.240613	334.4443	2.048041	93.24115	.8081754	.0439213
#3	1.238040	339.0580	2.061663	93.39515	.8052891	.0452853

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	288.1939	.6890883	1.452881	82.16261	1.013436	.3856460
Stddev	1.2987	.0024287	.005457	.69540	.008048	.0008099
%RSD	.4506376	.3524511	.3755786	.8463742	.7941536	.2100158
#1	286.6982	.6890440	1.447264	81.47398	1.005646	.3848704
#2	288.8488	.6866821	1.453219	82.14926	1.012944	.3864863
#3	289.0349	.6915389	1.458161	82.86460	1.021719	.3855813

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1746-06MS Acquired: 4/14/2025 21:13:27 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6407233	6.287822	F 94.35393	F 20.13159	F 221.3902	.5498434
Stddev	.0038347	.008473	.60152	.07469	.5907	.0035422
%RSD	.5984906	.1347603	.6375163	.3710291	.2668128	.6442151
#1	.6427309	6.278094	93.77171	20.06406	221.4128	.5458817
#2	.6431374	6.291775	94.31703	20.21182	221.9692	.5509436
#3	.6363017	6.293596	94.97305	20.11888	220.7885	.5527049

Elem	Sr4077
Units	ppm
Avg	.7303602
Stddev	.0022787
%RSD	.3119989
#1	.7279271
#2	.7307094
#3	.7324442

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2854.284	70196.70	14827.68	1925.812	3537.333
Stddev	7.296	289.29	8.43	11.139	7.662
%RSD	.2556304	.4121093	.0568333	.5784047	.2166081
#1	2846.797	70420.98	14820.66	1937.909	3528.558
#2	2861.374	70298.94	14825.34	1923.549	3540.742
#3	2854.682	69870.17	14837.03	1915.978	3542.698

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1746-06MSD Acquired: 4/14/2025 21:17:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8230138	1.804736	1.085146	1.770967	.7206136	124.5842
Stddev	.0059831	.006154	.001415	.002547	.0012119	.2165
%RSD	.7269793	.3409818	.1303668	.1437926	.1681707	.1737620
#1	.8250205	1.810216	1.084048	1.773437	.7212222	124.3573
#2	.8162853	1.805915	1.084647	1.771113	.7214007	124.6067
#3	.8277357	1.798078	1.086742	1.768351	.7192181	124.7885

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3742681	.1796246	.1949954	47.09345	.6724085	.2859226
Stddev	.0005090	.0006120	.0006542	.01924	.0163513	.0002904
%RSD	.1359999	.3407183	.3355011	.0408539	2.431752	.1015693
#1	.3745569	.1789241	.1955594	47.11511	.6628125	.2856721
#2	.3745670	.1798937	.1951488	47.08692	.6631246	.2862409
#3	.3736803	.1800559	.1942782	47.07833	.6912886	.2858547

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9588680	218.8714	1.406156	61.23679	.7000128	.0519524
Stddev	.0014225	3.7951	.005605	.13571	.0009631	.0004182
%RSD	.1483490	1.733929	.3985687	.2216165	.1375860	.8049130
#1	.9592958	216.8303	1.412620	61.13687	.7002862	.0514703
#2	.9600275	216.5338	1.403183	61.18222	.6989425	.0521706
#3	.9572808	223.2503	1.402664	61.39130	.7008097	.0522164

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	166.3833	.5483930	1.035169	52.00733	.7115035	.4015814
Stddev	2.5088	.0013584	.021308	.83937	.0080069	.0009805
%RSD	1.507866	.2477053	2.058424	1.613941	1.125354	.2441542
#1	164.8703	.5495314	1.023866	51.43127	.7066166	.4004500
#2	165.0002	.5468893	1.021894	51.62033	.7071499	.4021833
#3	169.2793	.5487582	1.059747	52.97038	.7207440	.4021109

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1746-06MSD Acquired: 4/14/2025 21:17:38 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6792957	4.218167	F 61.17822	14.53316	F 140.4901	.4290690
Stddev	.0019407	.001703	1.13610	.03594	.1852	.0003418
%RSD	.2856903	.0403761	1.857035	.2473024	.1318117	.0796620
#1	.6772253	4.217254	60.50028	14.56660	140.7021	.4287973
#2	.6795884	4.217114	60.54454	14.53774	140.4077	.4289568
#3	.6810734	4.220131	62.48982	14.49516	140.3603	.4294527

Elem	Sr4077
Units	ppm
Avg	.5171674
Stddev	.0003974
%RSD	.0768498
#1	.5176261
#2	.5169523
#3	.5169239

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2806.152	69023.95	14152.04	1870.849	3748.462
Stddev	8.437	1395.58	44.75	40.857	6.567
%RSD	.3006611	2.021874	.3161910	2.183894	.1751789
#1	2814.756	69928.81	14183.06	1893.569	3755.101
#2	2805.806	69726.32	14172.30	1895.296	3748.314
#3	2797.893	67416.73	14100.74	1823.681	3741.971

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1746-06A Acquired: 4/14/2025 21:21:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7771546	1.788204	1.018046	1.747223	.7280908	100.4846
Stddev	.0055295	.011093	.000413	.011930	.0036653	.0527
%RSD	.7115010	.6203473	.0405191	.6827827	.5034197	.0524910
#1	.7708616	1.798207	1.017933	1.735991	.7244137	100.5071
#2	.7812358	1.776273	1.018504	1.745933	.7317443	100.4243
#3	.7793664	1.790131	1.017703	1.759746	.7281144	100.5224

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3545431	.1747935	.1947969	54.99409	.6012278	.2522590
Stddev	.0003242	.0004894	.0003510	.07743	.0022503	.0003497
%RSD	.0914465	.2799651	.1801763	.1407900	.3742846	.1386207
#1	.3545645	.1753088	.1945042	54.95313	.6034503	.2526333
#2	.3542087	.1743350	.1947006	54.94575	.5989507	.2519407
#3	.3548560	.1747368	.1951860	55.08340	.6012824	.2522030

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7132582	145.6816	1.124999	53.51885	.6377787	.0583635
Stddev	.0032864	.2212	.002264	.11909	.0015962	.0001900
%RSD	.4607575	.1518493	.2012122	.2225204	.2502793	.3255430
#1	.7096225	145.4585	1.124318	53.40866	.6377157	.0582406
#2	.7141343	145.6854	1.123155	53.50269	.6362150	.0585823
#3	.7160177	145.9009	1.127526	53.64519	.6394056	.0582676

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	201.2335	.5181260	.9039945	57.90760	.9093811	.3977763
Stddev	1.8417	.0018812	.0008307	.03642	.0010727	.0018302
%RSD	.9151984	.3630677	.0918899	.0628878	.1179617	.4601018
#1	203.1432	.5200220	.9040606	57.88459	.9105954	.3961414
#2	201.0889	.5180959	.9031328	57.94958	.9089856	.3974341
#3	199.4683	.5162601	.9047902	57.88863	.9085623	.3997535

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1746-06A Acquired: 4/14/2025 21:21:39 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6789435	2.920596	F 51.61466	14.67323	F 91.93340	.3436087
Stddev	.0004776	.000989	.10138	.00960	.22906	.0007664
%RSD	.0703404	.0338551	.1964076	.0654128	.2491583	.2230328
#1	.6790812	2.920969	51.55417	14.67478	91.84336	.3427496
#2	.6793371	2.921345	51.55811	14.66295	91.76305	.3442219
#3	.6784122	2.919475	51.73170	14.68196	92.19380	.3438545

Elem	Sr4077
Units	ppm
Avg	.5783442
Stddev	.0012240
%RSD	.2116409
#1	.5791230
#2	.5789763
#3	.5769334

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2795.661	68058.12	14136.25	1836.005	3737.502
Stddev	15.357	172.59	34.77	1.412	12.813
%RSD	.5493004	.2535919	.2459349	.0769025	.3428212
#1	2812.212	67996.73	14112.31	1837.629	3749.098
#2	2792.894	68253.01	14176.13	1835.069	3739.661
#3	2781.875	67924.61	14120.31	1835.317	3723.746

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1746-07 Acquired: 4/14/2025 21:25:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001206	-.005954	.0003218	.0003874	-.000236	.0098727	-.001026
Stddev	.001277	.000593	.0023208	.0021747	.001411	.0039549	.000693
%RSD	105.8076	9.963130	721.0736	561.3655	597.3843	40.05916	67.56807
#1	-.000603	-.005434	-.001452	-.001787	-.001820	.0063248	-.001561
#2	-.002673	-.005828	.002948	.002563	.000887	.0141367	-.001274
#3	-.000344	-.006600	-.000531	.000386	.000224	.0091563	-.000243

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000185	-.000184	.0268366	-.000322	-.000332	.0007139	.0084299
Stddev	.000077	.000052	.0062967	.000160	.000155	.0001116	.0022320
%RSD	41.47645	28.21226	23.46323	49.84384	46.83222	15.63585	26.47696
#1	-.000114	-.000140	.0316355	-.000370	-.000448	.0006256	.0104979
#2	-.000176	-.000241	.0291676	-.000452	-.000392	.0008394	.0060639
#3	-.000266	-.000170	.0197067	-.000143	-.000155	.0006766	.0087279

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0069254	.0194363	-.000469	-.000373	-.156195	-.000137	.0012575
Stddev	.0001142	.0123541	.000085	.000099	.012139	.000948	.0000841
%RSD	1.649360	63.56212	18.12750	26.47408	7.771792	690.9283	6.690961
#1	.0069942	.0264777	-.000384	-.000352	-.167107	.000793	.0012069
#2	.0069884	.0266598	-.000468	-.000287	-.143119	-.001102	.0012109
#3	.0067935	.0051714	-.000554	-.000481	-.158358	-.000103	.0013546

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.151892	.0003316	-.000056	-.000564	-.000051	.0180142	.0075757
Stddev	.038473	.0001880	.000232	.001304	.000322	.0047501	.0025551
%RSD	25.32919	56.69499	411.3027	231.0789	625.2419	26.36841	33.72735
#1	-.191073	.0001219	-.000216	.000475	-.000056	.0142979	.0055873
#2	-.150435	.0004850	.000210	-.000140	-.000371	.0163790	.0104576
#3	-.114168	.0003879	-.000163	-.002027	.000273	.0233659	.0066823

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1746-07 Acquired: 4/14/2025 21:25:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0355142	-.003573	-.000033
Stddev	.0027308	.000146	.000012
%RSD	7.689322	4.092078	36.73624
#1	.0328077	-.003458	-.000047
#2	.0354660	-.003523	-.000024
#3	.0382687	-.003737	-.000028

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2814.238	69326.29	13929.74	1850.212	4557.139
Stddev	8.821	134.94	49.47	8.714	8.046
%RSD	.3134443	.1946425	.3551215	.4709732	.1765688
#1	2816.439	69439.45	13923.28	1854.525	4556.478
#2	2821.751	69362.46	13982.12	1840.182	4565.495
#3	2804.525	69176.95	13883.82	1855.928	4549.443

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1771-01 Acquired: 4/14/2025 21:30:08 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0618805	.0018637	1.708485	.0010782	.0035766	103.0125	1.011183
Stddev	.0008820	.0026752	.001332	.0026340	.0024071	.1731	.004667
%RSD	1.425392	143.5421	.0779637	244.2923	67.29974	.1680040	.4614934
#1	.0618965	.0043825	1.707006	.0040197	.0048764	103.0282	1.015916
#2	.0609906	.0021530	1.709589	.0002770	.0007991	103.1771	1.011046
#3	.0627545	-.000944	1.708859	-.001062	.0050543	102.8321	1.006586

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0077210	.0015705	82.17585	.2170584	.2217009	.7483010	227.3803
Stddev	.0000762	.0004371	.22093	.0010055	.0001923	.0037865	1.8129
%RSD	.9870404	27.83415	.2688524	.4632510	.0867558	.5060168	.7972886
#1	.0077186	.0011297	82.35920	.2176808	.2215895	.7439438	229.4463
#2	.0076460	.0015779	82.23780	.2175961	.2215902	.7501655	226.6395
#3	.0077984	.0020039	81.93056	.2158984	.2219230	.7507937	226.0552

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.534615	38.77142	.3203347	-.005217	7.893452	.3397298	1.650970
Stddev	.012621	.09164	.0001659	.000920	.096332	.0022757	.003033
%RSD	.4979448	.2363494	.0517839	17.63068	1.220410	.6698510	.1837345
#1	2.546637	38.70386	.3204706	-.004471	8.004349	.3415847	1.653386
#2	2.535740	38.87573	.3203836	-.004935	7.830499	.3404142	1.647566
#3	2.521470	38.73468	.3201498	-.006244	7.845507	.3371904	1.651959

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.75780	.0086642	.0066103	.1912633	3.319459	8.264523	6.708689
Stddev	.07209	.0041966	.0002716	.0015708	.011488	.051591	.007863
%RSD	.6701158	48.43578	4.108447	.8212495	.3460880	.6242504	.1172017
#1	10.84070	.0132795	.0065149	.1905839	3.328740	8.319539	6.704741
#2	10.70984	.0050779	.0063993	.1901466	3.323026	8.256805	6.703583
#3	10.72285	.0076351	.0069167	.1930594	3.306610	8.217226	6.717743

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1771-01 Acquired: 4/14/2025 21:30:08 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.694101	.2405570	.4575383
Stddev	.016145	.0012840	.0025398
%RSD	.2835382	.5337394	.5550955
#1	5.680503	.2418692	.4597888
#2	5.711944	.2404985	.4580416
#3	5.689855	.2393033	.4547846

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2929.476	72297.38	15683.71	1971.562	3887.025
Stddev	8.448	246.79	25.81	6.713	10.572
%RSD	.2883691	.3413560	.1645458	.3404797	.2719768
#1	2938.216	72018.29	15712.45	1972.223	3894.216
#2	2928.856	72486.79	15662.52	1977.920	3891.972
#3	2921.355	72387.06	15676.15	1964.544	3874.886

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1771-05 Acquired: 4/14/2025 21:34:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0583665	-.043463	2.367047	.0024102	.0258996	150.7694	.7840794
Stddev	.0038409	.003866	.002152	.0055190	.0023231	.2751	.0020458
%RSD	6.580677	8.893908	.0909306	228.9808	8.969443	.1824520	.2609132
#1	.0577448	-.046775	2.367221	.0072991	.0283109	150.7169	.7844672
#2	.0548744	-.044399	2.369107	.0035060	.0236763	150.5243	.7859035
#3	.0624803	-.039216	2.364813	-.003574	.0257116	151.0669	.7818675

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0075671	.0044593	139.9078	.2507645	.3028617	1.438185	377.3544
Stddev	.0000354	.0004760	.3341	.0015610	.0005281	.001692	1.9493
%RSD	.4676796	10.67443	.2387652	.6225020	.1743678	.1176491	.5165734
#1	.0076080	.0046615	139.5281	.2489620	.3030075	1.436949	375.9070
#2	.0075457	.0039155	140.1566	.2516535	.3033016	1.440114	379.5710
#3	.0075478	.0048008	140.0386	.2516778	.3022760	1.437493	376.5853

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.364104	161.3528	.5970991	-.008440	38.08033	.6671572	3.453220
Stddev	.012504	.5881	.0007657	.000587	.20855	.0030384	.015380
%RSD	.2330974	.3644677	.1282421	6.951475	.5476560	.4554225	.4453750
#1	5.351201	160.6961	.5969388	-.008762	37.99048	.6636558	3.435467
#2	5.376165	161.5317	.5979323	-.007762	38.31874	.6691008	3.462507
#3	5.364945	161.8307	.5964263	-.008794	37.93176	.6687149	3.461685

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.615801	-.220707	.0041084	.1172835	19.23736	5.010124	6.625072
Stddev	.065043	.008224	.0001661	.0016869	.01305	.027705	.018744
%RSD	.6764208	3.726052	4.042838	1.438293	.0678538	.5529745	.2829324
#1	9.590217	-.219606	.0042870	.1154086	19.22244	4.989932	6.629475
#2	9.689747	-.213089	.0040797	.1177634	19.24294	5.041709	6.604518
#3	9.567440	-.229426	.0039585	.1186783	19.24669	4.998732	6.641223

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1771-05 Acquired: 4/14/2025 21:34:11 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.520197	.2663146	.6303842
Stddev	.014281	.0010849	.0010479
%RSD	.4056781	.4073689	.1662315
#1	3.530984	.2655818	.6301128
#2	3.504002	.2675609	.6315411
#3	3.525604	.2658011	.6294986

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2964.422	72451.64	15349.09	1965.637	3658.983
Stddev	4.137	351.39	62.80	16.568	3.898
%RSD	.1395663	.4850054	.4091263	.8428960	.1065294
#1	2967.218	72842.97	15410.01	1984.243	3662.925
#2	2959.669	72163.10	15352.68	1952.478	3655.131
#3	2966.379	72348.85	15284.57	1960.189	3658.893

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCV09 Acquired: 4/14/2025 21:38:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV09 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.765360	4.828431	4.842652	4.800686	4.823701	9.518328	9.607728
Stddev	.003910	.040031	.009320	.011872	.016798	.024971	.132091
%RSD	.0820547	.8290738	.1924665	.2473052	.3482356	.2623488	1.374838
#1	4.761448	4.854183	4.832455	4.798490	4.815779	9.533904	9.696838
#2	4.765366	4.848799	4.844770	4.790065	4.812328	9.531556	9.670376
#3	4.769268	4.782312	4.850732	4.813503	4.842994	9.489526	9.455970

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2461386	2.434094	23.90796	.9725987	2.441303	1.223169	4.833292
Stddev	.0014813	.004473	.12586	.0030241	.003619	.002435	.021734
%RSD	.6018252	.1837749	.5264385	.3109339	.1482310	.1990698	.4496663
#1	.2473099	2.429826	24.01349	.9691086	2.438625	1.222037	4.814710
#2	.2466324	2.438747	23.94174	.9742453	2.445420	1.221506	4.827975
#3	.2444734	2.433708	23.76866	.9744422	2.439864	1.225963	4.857190

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.400362	23.60352	2.426888	1.215906	25.74984	2.397057	2.412243
Stddev	.012996	.13092	.002221	.000865	.05361	.009124	.006340
%RSD	.5414328	.5546459	.0915120	.0711136	.2082085	.3806181	.2628313
#1	2.411000	23.71312	2.424754	1.216285	25.69729	2.398389	2.416221
#2	2.404209	23.63889	2.429187	1.216517	25.80446	2.405441	2.415576
#3	2.385876	23.45856	2.426725	1.214917	25.74777	2.387340	2.404931

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.44747	4.906809	4.877590	4.861934	4.776317	4.858539	4.908939
Stddev	.04546	.039243	.006414	.009406	.017456	.039146	.019749
%RSD	.1786232	.7997713	.1315022	.1934703	.3654684	.8057205	.4023091
#1	25.39639	4.937403	4.872046	4.854802	4.789841	4.814139	4.907227
#2	25.46257	4.920460	4.876110	4.872594	4.782498	4.873398	4.929488
#3	25.48345	4.862563	4.884615	4.858404	4.756612	4.888081	4.890101

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCV09 Acquired: 4/14/2025 21:38:16 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV09 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.840260	4.740826	4.869940
Stddev	.004694	.010215	.036847
%RSD	.0969858	.2154743	.7566268
#1	4.842021	4.750075	4.891219
#2	4.843820	4.742543	4.827393
#3	4.834940	4.729862	4.891209

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2756.870	66009.21	12959.82	1811.027	4117.542
Stddev	3.420	207.37	74.26	.565	4.062
%RSD	.1240359	.3141505	.5730359	.0311786	.0986566
#1	2757.255	66221.70	12919.38	1811.679	4116.383
#2	2760.081	65807.37	12914.55	1810.712	4114.185
#3	2753.274	65998.57	13045.53	1810.690	4122.058

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCB09 Acquired: 4/14/2025 21:42:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB09 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0017841	-.001765	.0000656	-.000084	.0009262	-.001080
Stddev	.0014845	.000338	.0007240	.003445	.0007096	.004307
%RSD	83.20505	19.12865	1103.864	4097.088	76.61496	398.9861
#1	.0034830	-.001532	-.000135	-.000848	.0015777	.000442
#2	.0007374	-.002153	-.000537	.003679	.0010309	-.005941
#3	.0011319	-.001611	.000869	-.003083	.0001701	.002261

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000393	-.000032	-.000116	-.008304	.0002238	.0000206
Stddev	.000844	.000068	.000051	.005841	.0001338	.0002339
%RSD	214.7391	210.6937	44.15412	70.34158	59.77327	1137.290
#1	-.000239	-.000092	-.000060	-.015040	.0003097	.0001521
#2	.000363	.000042	-.000125	-.005237	.0000697	-.000249
#3	-.001303	-.000048	-.000161	-.004635	.0002921	.000159

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000217	.0001267	.0007958	.0202636	-.000297	-.000518
Stddev	.0003078	.0030947	.0000875	.0151978	.000090	.000186
%RSD	1421.866	2441.635	11.00047	75.00042	30.44710	35.94828
#1	.0003752	.0035086	.0008331	.0376585	-.000318	-.000499
#2	-.000124	-.002564	.0006958	.0095574	-.000198	-.000342
#3	-.000186	-.000565	.0008585	.0135749	-.000375	-.000713

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0318534	.0011834	-.000411	-.017162	.0052713	-.000024
Stddev	.0053711	.0005024	.000229	.010738	.0009047	.000341
%RSD	16.86191	42.45821	55.69474	62.57018	17.16312	1397.196
#1	.0267978	.0017181	-.000404	-.006804	.0063055	-.000389
#2	.0312699	.0007210	-.000186	-.016437	.0048815	.000287
#3	.0374924	.0011110	-.000644	-.028244	.0046267	.000028

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCB09 Acquired: 4/14/2025 21:42:28 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem 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	-.000449	.0001537	.0139272	.0034526	F .0102412	.0001145
Stddev	.000430	.0008881	.0037554	.0029455	.0008869	.0010354
%RSD	95.62470	577.7296	26.96449	85.31424	8.660248	903.9056
#1	-.000553	.0011791	.0161782	.0000517	.0109666	-.000976
#2	-.000817	-.000374	.0095919	.0051087	.0105046	.001084
#3	.000023	-.000344	.0160114	.0051973	.0092524	.000236

Elem	Sr4077
Units	ppm
Avg	-.000075
Stddev	.000017
%RSD	22.58199
#1	-.000091
#2	-.000075
#3	-.000058

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2833.209	68761.24	14040.61	1877.156	4502.575
Stddev	1.900	90.36	43.61	5.329	4.614
%RSD	.0670725	.1314066	.3106154	.2839104	.1024817
#1	2835.345	68687.72	13994.95	1878.635	4506.648
#2	2831.707	68862.12	14081.84	1881.589	4503.515
#3	2832.574	68733.89	14045.03	1871.243	4497.564

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1771-09 Acquired: 4/14/2025 21:46:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0282766	.0032710	.1299552	-.002194	-.004975	85.54787	.3107724
Stddev	.0040363	.0022682	.0010038	.002269	.002443	.15358	.0019169
%RSD	14.27429	69.34102	.7724394	103.4268	49.10082	.1795260	.6168195
#1	.0242587	.0058682	.1291029	-.004412	-.002693	85.39682	.3087985
#2	.0323310	.0016801	.1310617	.000123	-.007552	85.70386	.3126267
#3	.0282401	.0022647	.1297009	-.002292	-.004679	85.54295	.3108920

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0065700	.0014732	8.048050	.1251362	.0687200	.1394327	152.4339
Stddev	.0000316	.0001319	.012876	.0006909	.0002007	.0003984	.2049
%RSD	.4802446	8.950160	.1599836	.5521231	.2920876	.2857450	.1344174
#1	.0066063	.0014495	8.033482	.1254485	.0686626	.1391205	152.4414
#2	.0065550	.0013548	8.057905	.1256159	.0685542	.1392961	152.6350
#3	.0065488	.0016153	8.052764	.1243443	.0689431	.1398814	152.2254

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.570175	22.02133	.1262929	-.007001	1.108849	.1874191	.2790276
Stddev	.006604	.00801	.0008747	.000094	.010880	.0017672	.0019207
%RSD	.4205701	.0363662	.6926288	1.337515	.9811823	.9428958	.6883535
#1	1.565177	22.02931	.1268210	-.007049	1.097010	.1889172	.2812432
#2	1.577661	22.01329	.1252832	-.006893	1.118408	.1854702	.2780066
#3	1.567686	22.02138	.1267745	-.007062	1.111129	.1878699	.2778330

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.25866	-.159524	.0026953	.0018573	2.026019	9.937855	5.192545
Stddev	.06517	.000524	.0002205	.0006957	.008794	.010917	.018233
%RSD	.6352479	.3282265	8.179373	37.45866	.4340498	.1098553	.3511415
#1	10.19311	-.159237	.0029210	.0025127	2.018628	9.925259	5.174103
#2	10.32344	-.159208	.0026843	.0011273	2.035745	9.944598	5.192968
#3	10.25943	-.160129	.0024805	.0019318	2.023685	9.943707	5.210562

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1771-09 Acquired: 4/14/2025 21:46:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1916398	.1565080	.0659171
Stddev	.0017417	.0010132	.0003136
%RSD	.9088345	.6473764	.4758041
#1	.1910075	.1565218	.0656196
#2	.1903025	.1575143	.0662447
#3	.1936093	.1554880	.0658868

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3307.378	80552.63	16046.99	2180.760	4104.298
Stddev	6.708	245.38	3.32	21.197	10.912
%RSD	.2028223	.3046169	.0207023	.9719839	.2658739
#1	3312.234	80282.11	16043.17	2157.069	4111.372
#2	3310.177	80614.95	16048.61	2187.281	4109.791
#3	3299.724	80760.84	16049.18	2197.930	4091.731

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1771-09DUP Acquired: 4/14/2025 21:50:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0270636	.0030754	.1254064	.0009807	-.006035	84.79812	.3252276
Stddev	.0028242	.0010427	.0011337	.0021546	.001299	.07779	.0002659
%RSD	10.43527	33.90580	.9039999	219.6911	21.52246	.0917347	.0817700
#1	.0265395	.0020329	.1266078	.0018199	-.006187	84.83203	.3250941
#2	.0301131	.0041184	.1243555	-.001467	-.007251	84.70914	.3250549
#3	.0245382	.0030748	.1252560	.002589	-.004667	84.85321	.3255339

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0063139	-.001611	8.179893	.1224325	.0674647	.1360233	162.8849
Stddev	.0000236	.000046	.031684	.0006804	.0000288	.0003865	.6660
%RSD	.3733829	2.860976	.3873349	.5557048	.0426772	.2841351	.4088720
#1	.0063029	-.001567	8.194595	.1230514	.0674861	.1364414	163.1898
#2	.0062977	-.001607	8.143529	.1217040	.0674761	.1359494	162.1211
#3	.0063409	-.001659	8.201555	.1225422	.0674320	.1356791	163.3439

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.587563	21.95958	.1241816	-.005454	1.225789	.1898338	.2778996
Stddev	.005423	.06802	.0007217	.000245	.008549	.0005313	.0016599
%RSD	.3415946	.3097495	.5811858	4.493760	.6973886	.2798958	.5972852
#1	1.593302	21.94428	.1237527	-.005736	1.230335	.1898585	.2793019
#2	1.582524	21.90051	.1250149	-.005322	1.215928	.1892906	.2783300
#3	1.586862	22.03394	.1237773	-.005302	1.231104	.1903524	.2760670

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.12204	-.096798	.0027475	.0003120	2.067428	10.45966	5.286217
Stddev	.03500	.003474	.0003894	.0018479	.007860	.02335	.005269
%RSD	.3147181	3.588585	14.17152	592.2427	.3801973	.2231996	.0996750
#1	11.13784	-.096808	.0031926	.0016103	2.073154	10.45069	5.291345
#2	11.08192	-.100267	.0024696	-.001804	2.058466	10.44213	5.280817
#3	11.14635	-.093320	.0025803	.001129	2.070664	10.48616	5.286488

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1771-09DUP Acquired: 4/14/2025 21:50:55 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1848843	.1627284	.0684850
Stddev	.0010602	.0003679	.0002001
%RSD	.5734445	.2260905	.2921943
#1	.1840852	.1627503	.0687157
#2	.1844807	.1623500	.0683582
#3	.1860870	.1630848	.0683811

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3324.666	80620.49	16914.29	2233.193	4143.217
Stddev	4.867	69.12	28.75	.323	7.238
%RSD	.1463814	.0857390	.1699611	.0144415	.1746930
#1	3320.206	80542.08	16886.80	2233.556	4134.896
#2	3329.857	80646.72	16911.93	2233.084	4146.698
#3	3323.935	80672.65	16944.15	2232.939	4148.057

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1771-09LX5 Acquired: 4/14/2025 21:55:03 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0097227	.0015611	.0290658	-.002441	-.000379	19.69735	.0779728
Stddev	.0013892	.0007899	.0006004	.001655	.000244	.03084	.0006758
%RSD	14.28811	50.59809	2.065739	67.79916	64.52515	.1565919	.8667082
#1	.0103252	.0024534	.0296878	-.001964	-.000250	19.73256	.0785864
#2	.0107090	.0012782	.0284896	-.004281	-.000661	19.67511	.0780836
#3	.0081340	.0009516	.0290199	-.001077	-.000226	19.68437	.0772485

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0015135	-.001794	1.903509	.0289297	.0137094	.0335278	38.92784
Stddev	.0000269	.000070	.000586	.0002175	.0000743	.0002085	.17034
%RSD	1.775585	3.901565	.0307772	.7517371	.5415690	.6219319	.4375753
#1	.0015264	-.001814	1.903296	.0286914	.0137514	.0336351	39.05230
#2	.0014826	-.001852	1.903059	.0289801	.0136237	.0336608	38.99750
#3	.0015316	-.001716	1.904171	.0291175	.0137532	.0332875	38.73371

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3834485	5.112693	.0246576	-.001882	.2901566	.0450391	.0642255
Stddev	.0013060	.017805	.0003449	.000398	.0057019	.0013884	.0005665
%RSD	.3406048	.3482464	1.398767	21.13806	1.965098	3.082555	.8821113
#1	.3848896	5.133135	.0246619	-.001515	.2878554	.0453410	.0648797
#2	.3823430	5.100576	.0243105	-.002305	.2966495	.0462516	.0638990
#3	.3831131	5.104368	.0250003	-.001827	.2859650	.0435246	.0638979

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.521842	-.020044	.0003341	-.000432	.4871837	2.448375	1.052162
Stddev	.036258	.000408	.0002689	.000197	.0013433	.008879	.004780
%RSD	1.437741	2.033542	80.49035	45.62795	.2757248	.3626504	.4543300
#1	2.502583	-.020005	.0002561	-.000264	.4884268	2.458354	1.046847
#2	2.563666	-.019657	.0001128	-.000649	.4857587	2.445422	1.053530
#3	2.499279	-.020469	.0006333	-.000383	.4873656	2.441349	1.056110

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1771-09LX5 Acquired: 4/14/2025 21:55:03 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0404715	.0370786	.0162222
Stddev	.0027597	.0002671	.0000446
%RSD	6.818902	.7203310	.2750791
#1	.0431003	.0369830	.0162526
#2	.0375972	.0368724	.0161709
#3	.0407170	.0373803	.0162429

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2988.035	72666.03	15313.89	2020.383	4420.564
Stddev	4.354	128.36	37.80	6.339	4.780
%RSD	.1457124	.1766374	.2468566	.3137658	.1081217
#1	2984.184	72543.99	15311.36	2014.786	4417.336
#2	2992.760	72654.22	15352.89	2027.267	4426.055
#3	2987.163	72799.89	15277.41	2019.095	4418.300

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1771-09MS Acquired: 4/14/2025 21:59:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6225133	1.764191	1.012645	1.445261	.6000122	85.63089	.4526589
Stddev	.0035067	.007035	.003977	.003108	.0033162	.14525	.0012494
%RSD	.5633204	.3987938	.3927415	.2150691	.5526831	.1696202	.2760104
#1	.6185846	1.756090	1.008799	1.445216	.5973355	85.46975	.4525896
#2	.6253269	1.767711	1.012394	1.442175	.6037219	85.67119	.4539414
#3	.6236285	1.768772	1.016742	1.448391	.5989790	85.75174	.4514455

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1574859	.1857133	8.719559	.4257396	.2474107	.3576305	152.3486
Stddev	.0004889	.0003410	.020442	.0013418	.0010514	.0003003	.6906
%RSD	.3104123	.1835941	.2344368	.3151608	.4249646	.0839817	.4533254
#1	.1570868	.1854568	8.697143	.4270805	.2484699	.3574223	153.1404
#2	.1580312	.1855827	8.724362	.4257413	.2463673	.3574944	151.8703
#3	.1573396	.1861002	8.737171	.4243970	.2473947	.3579748	152.0352

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.692713	23.28734	.5694077	.0495411	3.157699	.4030595	.4219411
Stddev	.004591	.05703	.0010048	.0002914	.028225	.0014358	.0008570
%RSD	.2711958	.2448778	.1764678	.5881312	.8938496	.3562182	.2031092
#1	1.690569	23.24275	.5690672	.0496342	3.185773	.4014745	.4221384
#2	1.697983	23.26767	.5686174	.0497745	3.157997	.4034307	.4210027
#3	1.689587	23.35159	.5705385	.0492146	3.129325	.4042732	.4226824

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.43224	.0628242	.3145754	.6360764	2.149917	10.30202	10.42511
Stddev	.10478	.0044551	.0005631	.0002753	.001076	.03714	.01156
%RSD	.6010494	7.091399	.1790156	.0432729	.0500571	.3605168	.1109192
#1	17.54539	.0677236	.3144939	.6362101	2.148875	10.32149	10.43818
#2	17.41275	.0590162	.3140576	.6362592	2.151024	10.25920	10.41623
#3	17.33858	.0617329	.3151749	.6357598	2.149851	10.32538	10.42091

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1771-09MS Acquired: 4/14/2025 21:59:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1754117	.3103947	.2165164
Stddev	.0009637	.0005565	.0003679
%RSD	.5494157	.1792922	.1698980
#1	.1763635	.3109980	.2163481
#2	.1744365	.3102847	.2169383
#3	.1754349	.3099014	.2162627

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3326.435	79873.79	15816.52	2191.275	4143.746
Stddev	6.740	164.70	48.05	8.630	4.624
%RSD	.2026106	.2062050	.3038024	.3938272	.1115923
#1	3332.677	79686.01	15865.60	2181.380	4142.966
#2	3327.339	79993.80	15769.57	2195.200	4148.711
#3	3319.289	79941.55	15814.37	2197.244	4139.562

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1771-09MSD Acquired: 4/14/2025 22:03:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6286399	1.785432	1.015362	1.457856	.6117300	85.34733	.4570721
Stddev	.0018556	.005092	.001617	.003392	.0020598	.10752	.0017968
%RSD	.2951749	.2852199	.1592625	.2326972	.3367198	.1259751	.3931015
#1	.6265840	1.783003	1.013993	1.453975	.6106116	85.37232	.4589683
#2	.6291454	1.791284	1.017146	1.460261	.6104713	85.22952	.4568533
#3	.6301904	1.782010	1.014947	1.459330	.6141071	85.44016	.4553948

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1506459	.1847531	8.739014	.4284703	.2471313	.3561578	158.9362
Stddev	.0002570	.0006819	.015784	.0024009	.0001172	.0004485	.8227
%RSD	.1705732	.3691039	.1806174	.5603516	.0474217	.1259338	.5176545
#1	.1506346	.1849104	8.752375	.4279552	.2470096	.3566647	159.2356
#2	.1503948	.1840063	8.743068	.4310870	.2471407	.3559962	159.5673
#3	.1509084	.1853427	8.721597	.4263687	.2472434	.3558124	158.0057

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.673621	23.21437	.5686451	.0515200	3.318200	.4065816	.4251106
Stddev	.005837	.03778	.0002152	.0002562	.045304	.0013641	.0028135
%RSD	.3487357	.1627475	.0378352	.4972116	1.365304	.3355021	.6618178
#1	1.679422	23.23391	.5686333	.0517042	3.334789	.4073161	.4268649
#2	1.673692	23.17082	.5684361	.0516283	3.352870	.4050076	.4266015
#3	1.667749	23.23839	.5688659	.0512275	3.266940	.4074209	.4218655

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	18.38160	.0873980	.3229637	.6432668	2.156062	10.83827	10.38037
Stddev	.12343	.0048535	.0006462	.0010020	.005128	.03406	.00409
%RSD	.6715139	5.553384	.2000818	.1557660	.2378383	.3142563	.0394021
#1	18.48298	.0890097	.3222585	.6440282	2.158048	10.84538	10.38004
#2	18.41766	.0912406	.3231054	.6421317	2.159901	10.86822	10.38461
#3	18.24415	.0819436	.3235273	.6436406	2.150238	10.80122	10.37645

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1771-09MSD Acquired: 4/14/2025 22:03:19 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1679701	.3136992	.2195151
Stddev	.0023441	.0008861	.0005604
%RSD	1.395543	.2824729	.2552874
#1	.1696103	.3146916	.2201526
#2	.1690147	.3134187	.2192927
#3	.1652853	.3129873	.2191001

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3305.159	78978.49	16475.12	2149.758	4151.681
Stddev	4.937	315.89	47.48	5.418	2.001
%RSD	.1493681	.3999737	.2882037	.2520448	.0481885
#1	3309.947	79136.82	16524.59	2150.186	4152.330
#2	3300.086	78614.74	16470.85	2144.138	4149.436
#3	3305.443	79183.90	16429.92	2154.949	4153.276

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1771-09A Acquired: 4/14/2025 22:07:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6387896	1.803341	1.024466	1.478230	.5921733	85.43215	.4695395
Stddev	.0054062	.006136	.001948	.004875	.0025570	.05870	.0016237
%RSD	.8463114	.3402337	.1901630	.3298089	.4318059	.0687142	.3458008
#1	.6342252	1.797423	1.023182	1.472682	.5892796	85.49959	.4689923
#2	.6373840	1.802926	1.023508	1.480174	.5931120	85.40438	.4713661
#3	.6447598	1.809673	1.026707	1.481833	.5941283	85.39250	.4682601

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1450164	.1859479	8.735155	.4305205	.2496604	.3569333	166.1354
Stddev	.0010080	.0005137	.026991	.0001935	.0007267	.0015168	.5654
%RSD	.6950790	.2762586	.3089922	.0449376	.2910710	.4249480	.3403330
#1	.1460420	.1855965	8.766270	.4305257	.2488238	.3562183	165.5191
#2	.1449802	.1857098	8.718046	.4303244	.2500222	.3559061	166.6301
#3	.1440270	.1865375	8.721150	.4307113	.2501351	.3586754	166.2571

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.690310	23.08104	.5756237	.0531832	3.558576	.4087219	.4255707
Stddev	.007142	.11269	.0014504	.0002472	.031780	.0004531	.0011566
%RSD	.4225318	.4882381	.2519730	.4648307	.8930507	.1108670	.2717760
#1	1.695269	23.21115	.5747386	.0530142	3.522251	.4083747	.4262429
#2	1.693537	23.01433	.5748350	.0530685	3.572230	.4085564	.4242352
#3	1.682123	23.01764	.5772976	.0534669	3.581247	.4092345	.4262340

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.31363	.1112066	.3121794	.6291274	2.169402	11.26590	10.33800
Stddev	.12659	.0021875	.0005776	.0014934	.006682	.06199	.01833
%RSD	.6554238	1.967056	.1850064	.2373712	.3080096	.5502042	.1772922
#1	19.16827	.1091602	.3119607	.6280484	2.171745	11.20024	10.32226
#2	19.37301	.1109475	.3117432	.6285020	2.174597	11.32341	10.33362
#3	19.39960	.1135121	.3128344	.6308318	2.161864	11.27406	10.35812

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1771-09A Acquired: 4/14/2025 22:07:20 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1661751	.3163041	.2239085
Stddev	.0059907	.0014018	.0004775
%RSD	3.605053	.4431924	.2132591
#1	.1730914	.3150242	.2241408
#2	.1626092	.3178023	.2242254
#3	.1628246	.3160857	.2233593

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3312.520	79338.50	17275.02	2163.490	4139.902
Stddev	12.082	129.05	123.48	7.247	12.740
%RSD	.3647336	.1626546	.7148113	.3349498	.3077440
#1	3321.384	79257.09	17132.62	2159.862	4153.013
#2	3317.417	79487.29	17339.95	2171.834	4139.124
#3	3298.758	79271.13	17352.50	2158.775	4127.568

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1769-08 Acquired: 4/14/2025 22:11:22 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000369	-.003489	.0006180	.0011269	.0017408	.0545865	-.002127
Stddev	.000930	.001204	.0009968	.0023880	.0029710	.0021448	.000414
%RSD	252.2624	34.50205	161.3041	211.9050	170.6664	3.929227	19.45015
#1	-.001437	-.002272	-.000077	.0021845	.0024736	.0525920	-.001729
#2	.000070	-.004679	.000171	.0028034	-.001528	.0543121	-.002095
#3	.000261	-.003516	.001760	-.001607	.004277	.0568553	-.002555

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000215	-.000265	.0147911	.0002877	-.000359	.0004912	.0610209
Stddev	.000019	.000031	.0056018	.0001484	.000093	.0002079	.0021241
%RSD	8.985711	11.90503	37.87249	51.59165	25.97967	42.31422	3.480894
#1	-.000207	-.000239	.0211595	.0004503	-.000263	.0006030	.0593214
#2	-.000201	-.000300	.0125880	.0002532	-.000449	.0002514	.0603392
#3	-.000237	-.000255	.0106258	.0001596	-.000363	.0006193	.0634022

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000940	.0191161	.0005889	-.000445	-.170721	.0015850	.0346791
Stddev	.000235	.0010440	.0004267	.000191	.010966	.0018862	.0003749
%RSD	25.01920	5.461186	72.46033	42.89907	6.423613	119.0058	1.081081
#1	-.001211	.0202517	.0003925	-.000587	-.162448	.0024471	.0350797
#2	-.000825	.0188984	.0002958	-.000228	-.183160	.0028861	.0343367
#3	-.000785	.0181981	.0010784	-.000519	-.166554	-.000578	.0346208

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.149098	-.000675	-.000077	-.000343	.0000263	.0672368	.0089973
Stddev	.020136	.000225	.000225	.000376	.0003345	.0087491	.0033817
%RSD	13.50525	33.27761	291.7744	109.5178	1272.830	13.01241	37.58569
#1	-.167763	-.000653	-.000020	.000028	.0004073	.0772903	.0109907
#2	-.127758	-.000910	.000114	-.000333	-.000109	.0613482	.0109084
#3	-.151773	-.000463	-.000325	-.000723	-.000219	.0630720	.0050927

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1769-08 Acquired: 4/14/2025 22:11:22 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0136907	-.002980	.0000489
Stddev	.0034831	.000357	.0000226
%RSD	25.44147	11.98522	46.31971
#1	.0158807	-.002790	.0000665
#2	.0096742	-.002758	.0000233
#3	.0155171	-.003392	.0000568

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2872.806	69910.58	14329.53	1881.843	4666.342
Stddev	5.822	151.74	16.11	6.697	17.480
%RSD	.2026751	.2170506	.1124372	.3558604	.3746024
#1	2866.317	69876.79	14313.04	1880.120	4659.504
#2	2877.573	69778.58	14330.31	1876.175	4686.208
#3	2874.529	70076.37	14345.24	1889.232	4653.315

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1752-01 Acquired: 4/14/2025 22:15:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0248730	-.000256	.0635782	-.004391	-.008039	60.68142	.6075226
Stddev	.0021062	.002405	.0015056	.005354	.000959	.11436	.0002512
%RSD	8.467692	939.1563	2.368038	121.9314	11.93016	.1884609	.0413504
#1	.0225471	-.002335	.0636078	-.009858	-.009035	60.55101	.6075994
#2	.0266514	-.000811	.0620581	-.004156	-.007121	60.72867	.6072420
#3	.0254205	.002378	.0650687	.000842	-.007961	60.76459	.6077265

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0064063	.0023296	64.21366	.0625867	.0934804	.2119414	234.7313
Stddev	.0000136	.0005288	.14475	.0001337	.0001987	.0004401	1.1876
%RSD	.2119112	22.70051	.2254237	.2135417	.2126024	.2076397	.5059388
#1	.0064002	.0017490	64.09510	.0626208	.0934260	.2114946	236.1023
#2	.0063969	.0024562	64.37497	.0627000	.0933145	.2123744	234.0199
#3	.0064219	.0027836	64.17089	.0624393	.0937006	.2119553	234.0718

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.191352	38.27711	.0836038	-.013158	1.854414	.1194014	.4139495
Stddev	.009539	.12528	.0001113	.000201	.018323	.0005979	.0006159
%RSD	.1837530	.3273011	.1331588	1.526948	.9880600	.5007461	.1487965
#1	5.193566	38.13705	.0835438	-.013055	1.875559	.1194819	.4146014
#2	5.199590	38.37849	.0835354	-.013029	1.843218	.1187673	.4138698
#3	5.180900	38.31578	.0837323	-.013389	1.844464	.1199549	.4133772

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.47881	-.292664	.0092439	-.011427	5.543421	3.063528	8.108884
Stddev	.14052	.004154	.0002081	.000936	.003742	.017508	.043277
%RSD	.6251165	1.419334	2.251084	8.187131	.0675005	.5715061	.5337000
#1	22.63727	-.287896	.0092920	-.010861	5.546046	3.083507	8.093421
#2	22.36936	-.295496	.0090160	-.010913	5.545080	3.050862	8.075462
#3	22.42980	-.294600	.0094238	-.012507	5.539136	3.056215	8.157768

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1752-01 Acquired: 4/14/2025 22:15:42 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	21.31131	.1820275	.0829599
Stddev	.06622	.0006054	.0003177
%RSD	.3107235	.3326047	.3829044
#1	21.28799	.1826131	.0833110
#2	21.25991	.1814040	.0828760
#3	21.38604	.1820654	.0826926

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3184.185	78925.41	15349.90	2151.071	3916.754
Stddev	1.905	165.88	67.03	4.896	5.797
%RSD	.0598232	.2101709	.4366496	.2276067	.1479946
#1	3185.620	78789.36	15425.91	2153.422	3922.968
#2	3182.024	79110.20	15299.29	2145.443	3915.801
#3	3184.910	78876.67	15324.50	2154.349	3911.493

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1752-03 Acquired: 4/14/2025 22:19:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0594499	-.006179	.5929066	.0014236	-.009305	104.8336	.9341700
Stddev	.0021130	.001672	.0035385	.0039543	.001122	.5716	.0052769
%RSD	3.554179	27.06176	.5968005	277.7650	12.05883	.5452579	.5648799
#1	.0576743	-.004560	.5891190	-.001754	-.008012	104.5683	.9298366
#2	.0588885	-.007900	.5934732	.005852	-.010021	104.4430	.9326269
#3	.0617868	-.006077	.5961275	.000173	-.009882	105.4897	.9400465

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0116087	.0028949	21.81996	.2534824	.1355789	.6303547	267.9502
Stddev	.0000937	.0002526	.10521	.0001795	.0002864	.0008230	.4218
%RSD	.8072907	8.727047	.4821755	.0708233	.2112176	.1305540	.1573990
#1	.0116158	.0026106	21.71090	.2532927	.1355430	.6303851	268.0089
#2	.0115116	.0029806	21.82811	.2535047	.1353122	.6295170	267.5022
#3	.0116986	.0030937	21.92085	.2536497	.1358815	.6311621	268.3396

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.810424	58.39926	.2790086	-.010689	1.196557	.3284300	.9173524
Stddev	.024550	.31101	.0004099	.000387	.007469	.0006660	.0025851
%RSD	.5103484	.5325586	.1469002	3.618573	.6241954	.2027681	.2817977
#1	4.785194	58.10562	.2785445	-.010677	1.188487	.3278349	.9182888
#2	4.811845	58.36703	.2791600	-.010308	1.203226	.3283057	.9193387
#3	4.834232	58.72513	.2793211	-.011082	1.197959	.3291493	.9144296

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.49526	-.178099	.0012039	.0097545	5.904885	5.311112	8.670878
Stddev	.08755	.006396	.0002361	.0013367	.026635	.023155	.010146
%RSD	.3184276	3.591359	19.61516	13.70321	.4510621	.4359732	.1170147
#1	27.57096	-.170767	.0014306	.0083828	5.881981	5.334573	8.664966
#2	27.39938	-.182535	.0012219	.0110531	5.898563	5.288276	8.665075
#3	27.51543	-.180995	.0009593	.0098276	5.934112	5.310488	8.682594

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1752-03 Acquired: 4/14/2025 22:19:48 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4352877	.3183581	.1192116
Stddev	.0016349	.0013668	.0006100
%RSD	.3755974	.4293328	.5116773
#1	.4364590	.3174920	.1187733
#2	.4359844	.3176484	.1189532
#3	.4334199	.3199338	.1199082

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3284.487	79961.80	16676.63	2188.800	3956.636
Stddev	9.405	171.97	81.24	8.600	8.445
%RSD	.2863412	.2150687	.4871780	.3928940	.2134412
#1	3292.704	79877.72	16754.16	2178.887	3966.081
#2	3286.526	80159.64	16683.61	2194.259	3954.012
#3	3274.229	79848.06	16592.12	2193.253	3949.813

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1752-05 Acquired: 4/14/2025 22:23:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0461072	.0096968	.1790632	-.004714	-.009664	104.4254	.8594698
Stddev	.0005424	.0029419	.0013304	.004594	.002036	.1048	.0032285
%RSD	1.176351	30.33862	.7429567	97.45465	21.06775	.1003864	.3756373
#1	.0467053	.0124751	.1784632	-.005003	-.008800	104.4026	.8560220
#2	.0456472	.0066149	.1781385	.000018	-.011990	104.5397	.8624216
#3	.0459691	.0100005	.1805879	-.009156	-.008203	104.3338	.8599657

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0123367	.0013152	19.09382	.2332434	.1391380	.3587583	260.2846
Stddev	.0001442	.0003965	.02297	.0005842	.0008961	.0013764	1.3581
%RSD	1.169065	30.14744	.1203047	.2504868	.6440679	.3836643	.5217755
#1	.0123590	.0014762	19.09805	.2330407	.1381277	.3588376	258.7300
#2	.0121827	.0008635	19.11438	.2327875	.1394492	.3573440	261.2403
#3	.0124685	.0016058	19.06903	.2339020	.1398370	.3600934	260.8835

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.489757	59.91985	.3110859	-.011823	1.293636	.2674864	.6181757
Stddev	.014819	.08978	.0014507	.000493	.006504	.0004675	.0013311
%RSD	.2283391	.1498368	.4663458	4.171536	.5028075	.1747685	.2153190
#1	6.477061	60.01760	.3097698	-.012352	1.292050	.2676680	.6193723
#2	6.506040	59.84107	.3108463	-.011741	1.300787	.2669554	.6184127
#3	6.486171	59.90089	.3126415	-.011376	1.288071	.2678359	.6167421

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	22.50106	-.208218	.0017366	-.000225	3.262732	3.034708	6.140609
Stddev	.11951	.008095	.0002342	.001400	.010424	.001189	.009403
%RSD	.5311147	3.887687	13.48330	622.0148	.3194781	.0391708	.1531290
#1	22.36490	-.217362	.0014662	-.000802	3.257358	3.033650	6.141020
#2	22.58855	-.205326	.0018683	.001372	3.274745	3.034479	6.131007
#3	22.54974	-.201967	.0018752	-.001245	3.256091	3.035994	6.149800

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1752-05 Acquired: 4/14/2025 22:23:53 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0186412	.3535326	.1245513
Stddev	.0037274	.0026381	.0005022
%RSD	19.99537	.7462210	.4031776
#1	.0229343	.3525627	.1241315
#2	.0167600	.3565184	.1251076
#3	.0162293	.3515167	.1244147

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3245.936	78336.39	16151.78	2124.872	3976.750
Stddev	8.001	199.27	32.32	3.708	14.052
%RSD	.2464875	.2543768	.2001212	.1744915	.3533485
#1	3253.123	78529.91	16118.36	2128.773	3990.274
#2	3247.370	78347.43	16182.89	2121.394	3977.753
#3	3237.315	78131.83	16154.10	2124.450	3962.224

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCV10 Acquired: 4/14/2025 22:28:00 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV10 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.832151	4.899929	4.868382	4.878142	4.876278	9.553704	9.666422
Stddev	.005475	.017447	.019015	.025836	.017662	.020639	.090288
%RSD	.1133073	.3560683	.3905770	.5296379	.3621938	.2160328	.9340392
#1	4.826846	4.883278	4.867309	4.851080	4.858999	9.537819	9.770034
#2	4.837781	4.918076	4.849927	4.880798	4.875537	9.577032	9.624630
#3	4.831824	4.898434	4.887911	4.902548	4.894299	9.546262	9.604601

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2433406	2.448303	23.84570	.9771533	2.452846	1.232302	4.884234
Stddev	.0012595	.005598	.02890	.0031036	.006745	.004361	.009359
%RSD	.5176087	.2286637	.1212133	.3176119	.2749786	.3538710	.1916108
#1	.2426116	2.448223	23.81262	.9795412	2.451753	1.228985	4.892642
#2	.2447950	2.442746	23.86605	.9782736	2.446715	1.230679	4.874151
#3	.2426153	2.453941	23.85844	.9736452	2.460071	1.237241	4.885909

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.382521	23.64280	2.438274	1.221226	24.01037	2.396969	2.428445
Stddev	.006649	.05339	.006895	.000599	.11382	.006180	.006987
%RSD	.2790784	.2258265	.2827680	.0490642	.4740478	.2578408	.2877176
#1	2.378734	23.58145	2.438239	1.220960	24.02029	2.395817	2.420994
#2	2.378629	23.67873	2.431397	1.221912	23.89192	2.391446	2.434851
#3	2.390198	23.66823	2.445186	1.220806	24.11891	2.403644	2.429489

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.39691	4.854064	4.920228	4.895711	4.771564	4.853942	4.885769
Stddev	.02442	.021130	.018078	.013020	.009325	.002696	.013259
%RSD	.1000934	.4353068	.3674195	.2659417	.1954338	.0555348	.2713838
#1	24.40539	4.831704	4.905894	4.897149	4.762515	4.852703	4.880274
#2	24.36938	4.873700	4.914252	4.882032	4.771036	4.852089	4.876141
#3	24.41596	4.856788	4.940537	4.907953	4.781143	4.857035	4.900892

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCV10 Acquired: 4/14/2025 22:28:00 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV10 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.866179	4.721860	4.885621
Stddev	.011874	.017553	.013275
%RSD	.2440055	.3717307	.2717183
#1	4.870285	4.707805	4.900817
#2	4.852798	4.716242	4.876283
#3	4.875455	4.741534	4.879761

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2741.038	65747.14	13112.40	1783.112	4106.573
Stddev	8.997	240.52	73.88	6.087	7.831
%RSD	.3282400	.3658217	.5634554	.3413675	.1906897
#1	2747.898	65675.66	13150.97	1778.833	4109.462
#2	2744.365	65550.46	13027.22	1780.423	4112.549
#3	2730.851	66015.29	13159.02	1790.081	4097.708

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCB10 Acquired: 4/14/2025 22:32:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB10 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019772	-.000026	.0005613	-.000530	.0004469	.0011490	-.001384
Stddev	.0010229	.001193	.0012179	.003567	.0019839	.0008671	.000922
%RSD	51.73363	4597.445	216.9720	673.5161	443.9410	75.46657	66.60017
#1	.0028842	-.001261	.0019677	-.004085	.0019639	.0015293	-.000653
#2	.0021790	.000065	-.000144	.003048	-.001798	.0017611	-.002420
#3	.0008685	.001119	-.000140	-.000552	.001175	.0001567	-.001080

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000106	-.000132	-.001939	-.000159	-.000128	.0000536	.0032169
Stddev	.0000275	.000032	.004619	.000268	.000128	.0003337	.0034584
%RSD	259.3243	24.56280	238.2198	168.6824	99.87244	622.1290	107.5059
#1	.0000098	-.000111	-.006571	-.000238	-.000006	.0003964	.0041237
#2	-.000016	-.000169	-.001912	.000140	-.000116	.0000346	.0061316
#3	.000039	-.000115	.002666	-.000377	-.000261	-.000270	-.000605

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005497	.0115057	-.000125	-.000224	-.050086	.0005780	-.000383
Stddev	.0004250	.0094002	.000061	.000170	.008973	.0013529	.000151
%RSD	77.32958	81.70089	48.84745	76.19637	17.91568	234.0761	39.37029
#1	.0003954	.0184643	-.000195	-.000029	-.041546	-.000579	-.000267
#2	.0010303	.0008120	-.000083	-.000345	-.059437	.002065	-.000553
#3	.0002232	.0152408	-.000096	-.000296	-.049274	.000248	-.000328

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.015974	.0051306	-.000143	-.000016	-.000338	.0143974	.0027382
Stddev	.004241	.0002685	.000367	.001247	.000433	.0044602	.0001600
%RSD	26.54708	5.233609	255.8186	7704.247	127.9047	30.97931	5.843149
#1	-.016308	.0053526	-.000357	-.000559	-.000833	.0175140	.0027217
#2	-.011577	.0048322	.000280	.001410	-.000156	.0092882	.0025872
#3	-.020038	.0052071	-.000353	-.000900	-.000026	.0163899	.0029059

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCB10 Acquired: 4/14/2025 22:32:10 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB10 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0021047	-.000670	-.000078
Stddev	.0023950	.000750	.000017
%RSD	113.7953	112.0135	21.24089
#1	.0015009	-.001157	-.000097
#2	.0047437	-.001047	-.000072
#3	.0000693	.000194	-.000066

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2805.285	67749.37	13091.37	1855.331	4449.182
Stddev	5.089	198.13	22.39	4.554	11.525
%RSD	.1814014	.2924392	.1710618	.2454789	.2590332
#1	2809.233	67843.57	13101.57	1857.907	4457.974
#2	2807.079	67882.82	13065.69	1850.072	4453.437
#3	2799.542	67521.72	13106.85	1858.014	4436.134

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1752-07 Acquired: 4/14/2025 22:36:31 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0628865	.0094547	.2308584	.0022632	-.012500	117.2883	1.167381
Stddev	.0026222	.0021577	.0011078	.0067593	.002664	.1131	.002569
%RSD	4.169718	22.82146	.4798639	298.6662	21.31451	.0964451	.2200555
#1	.0652868	.0107121	.2298676	.0098013	-.011434	117.3881	1.167292
#2	.0632848	.0069633	.2306531	-.003258	-.010533	117.1654	1.164858
#3	.0600880	.0106889	.2320545	.000247	-.015532	117.3113	1.169993

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0147541	.0053324	24.47305	.2810235	.1858370	.6225114	321.7083
Stddev	.0001083	.0004054	.02274	.0008784	.0008299	.0013523	1.4089
%RSD	.7342390	7.601755	.0929134	.3125652	.4465934	.2172396	.4379403
#1	.0147884	.0049196	24.48336	.2820315	.1850866	.6210504	322.0447
#2	.0146328	.0053477	24.48881	.2804221	.1856960	.6227644	322.9186
#3	.0148412	.0057299	24.44698	.2806168	.1867284	.6237193	320.1617

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.11354	69.45086	.3903747	-.012466	1.745191	.3328409	.6910284
Stddev	.00785	.03048	.0011041	.000230	.010772	.0011592	.0020215
%RSD	.0706518	.0438909	.2828256	1.842367	.6172242	.3482775	.2925369
#1	11.10476	69.43386	.3903478	-.012355	1.736443	.3315726	.6924285
#2	11.11596	69.43267	.3892843	-.012312	1.757222	.3331043	.6887108
#3	11.11989	69.48605	.3914919	-.012730	1.741907	.3338457	.6919458

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	28.57179	-.189278	.0023653	-.000905	4.276762	2.902669	8.583096
Stddev	.06253	.008827	.0002658	.000660	.003304	.014220	.047304
%RSD	.2188473	4.663691	11.23941	72.97991	.0772587	.4899028	.5511314
#1	28.59616	-.185436	.0024683	-.001331	4.277779	2.908492	8.540802
#2	28.61846	-.183022	.0020633	-.001239	4.273069	2.913054	8.574309
#3	28.50074	-.199375	.0025641	-.000144	4.279438	2.886462	8.634178

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1752-07 Acquired: 4/14/2025 22:36:31 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0149211	.4185566	.1521771
Stddev	.0007718	.0014991	.0002763
%RSD	5.172546	.3581535	.1815453
#1	.0152420	.4175652	.1521085
#2	.0140406	.4178236	.1519415
#3	.0154806	.4202812	.1524812

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3445.088	84009.85	17760.12	2310.295	3903.776
Stddev	1.688	132.22	36.77	9.953	2.741
%RSD	.0489951	.1573895	.2070157	.4308196	.0702212
#1	3443.146	83954.24	17769.58	2315.764	3901.544
#2	3446.194	83914.51	17791.24	2298.806	3906.836
#3	3445.926	84160.79	17719.55	2316.314	3902.949

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCV11 Acquired: 4/14/2025 22:40:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV11 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.801447	4.868814	4.846705	4.850158	4.846623	9.488575	9.832116
Stddev	.028388	.035197	.017665	.033216	.028801	.003090	.106482
%RSD	.5912284	.7229078	.3644693	.6848421	.5942513	.0325696	1.083004
#1	4.789941	4.835965	4.832486	4.827592	4.832422	9.485039	9.949056
#2	4.780619	4.864513	4.841148	4.834583	4.827681	9.490756	9.740748
#3	4.833781	4.905964	4.866480	4.888300	4.879767	9.489931	9.806543

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2406105	2.453422	24.13629	.9582528	2.461496	1.233110	4.934821
Stddev	.0008079	.007181	.03086	.0030553	.007162	.005484	.014391
%RSD	.3357563	.2926943	.1278369	.3188390	.2909496	.4447442	.2916310
#1	.2396794	2.449925	24.16620	.9549493	2.457139	1.229813	4.951435
#2	.2411249	2.448659	24.10457	.9588322	2.457587	1.230077	4.926219
#3	.2410272	2.461682	24.13811	.9609769	2.469761	1.239441	4.926808

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.424011	23.49527	2.442224	1.209089	25.68438	2.402649	2.398582
Stddev	.007959	.05353	.007831	.000896	.15313	.008776	.004181
%RSD	.3283555	.2278179	.3206481	.0741180	.5961828	.3652754	.1743290
#1	2.433157	23.46195	2.438357	1.208523	25.85943	2.412684	2.403267
#2	2.418652	23.46684	2.437080	1.208622	25.61847	2.398862	2.397251
#3	2.420226	23.55701	2.451237	1.210122	25.57525	2.396403	2.395228

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.17356	4.824848	4.852226	4.898287	4.811666	4.788308	5.014163
Stddev	.07630	.015619	.025402	.017255	.012168	.008381	.032941
%RSD	.3031143	.3237250	.5235135	.3522748	.2528851	.1750205	.6569512
#1	25.26008	4.807035	4.837007	4.885823	4.825042	4.786500	4.982205
#2	25.14470	4.831303	4.838120	4.891057	4.801254	4.780979	5.012277
#3	25.11589	4.836205	4.881551	4.917981	4.808700	4.797445	5.048006

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCV11 Acquired: 4/14/2025 22:40:35 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV11 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.973354	4.775492	4.907778
Stddev	.020404	.014421	.029730
%RSD	.4102746	.3019720	.6057746
#1	4.973562	4.790066	4.875976
#2	4.952846	4.775181	4.912484
#3	4.993653	4.761230	4.934875

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2743.878	66928.71	13269.11	1849.862	4061.272
Stddev	12.910	86.33	17.84	6.185	12.959
%RSD	.4705183	.1289863	.1344796	.3343310	.3190888
#1	2747.880	66887.25	13280.45	1843.037	4063.109
#2	2754.315	67027.94	13278.33	1855.096	4073.214
#3	2729.441	66870.92	13248.54	1851.452	4047.492

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCB11 Acquired: 4/14/2025 22:44:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB11 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0037228	-.000382	.0003771	-.004208	.0004884	.0008770	.0008307
Stddev	.0009536	.000500	.0009273	.001866	.0013156	.0041822	.0008399
%RSD	25.61478	130.8398	245.8551	44.33856	269.3928	476.8505	101.1119
#1	.0026268	.000194	.0013857	-.003178	.0014931	.0044501	.0012339
#2	.0043625	-.000706	.0001842	-.003084	.0009727	-.003723	-.000135
#3	.0041789	-.000635	-.000438	-.006361	-.001001	.001904	.001393

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000002	-.000063	-.004386	-.000357	.0000363	.0002354	.0013959
Stddev	.000080	.000054	.002808	.000055	.0002634	.0002526	.0074498
%RSD	5032.781	85.33850	64.01480	15.52573	724.9012	107.3381	533.6785
#1	.000083	-.000092	-.001161	-.000299	.0001628	.0002781	-.004940
#2	-.000076	-.000001	-.005709	-.000364	.0002127	-.000036	.009603
#3	-.000012	-.000097	-.006288	-.000409	-.000266	.000464	-.000475

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004375	.0055519	-.000007	-.000271	-.053879	.0002791	-.000518
Stddev	.0002571	.0123826	.000217	.000100	.009832	.0007209	.000227
%RSD	58.77345	223.0326	3257.403	36.78345	18.24753	258.2303	43.89653
#1	.0006546	.0185319	.000227	-.000156	-.049748	.0010779	-.000403
#2	.0001535	-.006131	-.000200	-.000323	-.046787	-.000323	-.000779
#3	.0005043	.004255	-.000047	-.000334	-.065102	.000082	-.000371

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.027060	.0063454	-.000029	-.000357	-.000878	.0174138	.0040973
Stddev	.018261	.0002066	.000180	.000432	.000321	.0038770	.0005791
%RSD	67.48402	3.255490	618.0455	121.0621	36.52775	22.26402	14.13319
#1	-.046547	.0064186	.000133	-.000782	-.001248	.0159410	.0042562
#2	-.024293	.0065055	.000003	.000082	-.000709	.0144890	.0034554
#3	-.010340	.0061122	-.000222	-.000370	-.000677	.0218115	.0045804

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCB11 Acquired: 4/14/2025 22:44:47 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB11 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0021135	-.000277	.0000158
Stddev	.0036735	.000956	.0000327
%RSD	173.8160	345.7059	206.5048
#1	.0033420	-.000232	.0000057
#2	.0050153	-.001254	-.000011
#3	-.002017	.000657	.000052

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2903.532	71820.39	13717.05	1937.941	4661.367
Stddev	5.484	49.57	26.28	5.883	7.627
%RSD	.1888801	.0690160	.1915577	.3035582	.1636186
#1	2908.429	71776.49	13736.10	1943.106	4669.184
#2	2904.562	71810.54	13687.08	1931.538	4660.970
#3	2897.606	71874.14	13727.98	1939.181	4653.945

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1752-02 Acquired: 4/14/2025 22:49:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003003	-.004702	.0025599	.0045849	.0013186	.0674596	.2638110
Stddev	.001690	.000527	.0006837	.0008436	.0024848	.0030773	.0009342
%RSD	56.26083	11.21768	26.70802	18.39965	188.4462	4.561656	.3541287
#1	-.001336	-.004990	.0021423	.0049108	-.000920	.0659771	.2641681
#2	-.002960	-.005022	.0021884	.0036269	.000883	.0709976	.2645141
#3	-.004714	-.004093	.0033489	.0052169	.003992	.0654043	.2627509

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000155	.0001930	43.87379	.0001825	.0060209	.0104109	.0404170
Stddev	.000029	.0000305	.18756	.0000789	.0001532	.0003469	.0028304
%RSD	18.93462	15.80947	.4275018	43.22899	2.545222	3.331721	7.002896
#1	-.000133	.0002194	43.97625	.0002679	.0059144	.0100174	.0398355
#2	-.000188	.0001596	43.98781	.0001124	.0059518	.0105431	.0434929
#3	-.000143	.0002000	43.65732	.0001671	.0061965	.0106722	.0379225

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.315124	.9769199	.0037052	-.000167	325.6490	.0011179	.1008209
Stddev	.003840	.0114276	.0002756	.000354	2.6935	.0011467	.0006848
%RSD	.2919759	1.169756	7.437047	212.6886	.8271314	102.5776	.6791885
#1	1.318272	.9781770	.0040228	-.000569	326.5159	.0007629	.1000638
#2	1.316253	.9649157	.0035296	.000099	327.8025	.0001907	.1013970
#3	1.310846	.9876669	.0035632	-.000030	322.6288	.0024002	.1010019

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.752852	.0327534	-.000005	-.002115	-.000958	.8723058	.0130459
Stddev	.021014	.0010144	.000176	.001218	.000182	.0048563	.0057471
%RSD	.5599496	3.097216	3484.515	57.59192	18.99178	.5567237	44.05250
#1	3.728696	.0326736	.000102	-.003501	-.001051	.8776445	.0096849
#2	3.762935	.0338053	.000091	-.001215	-.000748	.8681507	.0196819
#3	3.766924	.0317811	-.000208	-.001629	-.001074	.8711221	.0097710

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1752-02 Acquired: 4/14/2025 22:49:07 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.408441	-.008354	.0497666
Stddev	.013056	.001093	.0002156
%RSD	.9269755	13.08487	.4331416
#1	1.397199	-.009336	.0499677
#2	1.405363	-.008550	.0497931
#3	1.422761	-.007176	.0495390

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2623.065	64324.45	13546.11	1736.446	3864.977
Stddev	13.307	14.08	59.08	6.034	16.381
%RSD	.5072933	.0218892	.4361048	.3474638	.4238364
#1	2638.412	64336.37	13496.43	1742.842	3882.266
#2	2616.040	64328.07	13530.46	1730.856	3862.978
#3	2614.742	64308.92	13611.43	1735.641	3849.687

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1752-04. Acquired: 4/14/2025 22:53:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000844	-.005538	.0223149	.0057593	.0019701	.0163885	.3732264
Stddev	.000952	.000516	.0015193	.0024584	.0007429	.0037033	.0004923
%RSD	112.7631	9.323107	6.808385	42.68588	37.71020	22.59671	.1319156
#1	-.001906	-.005438	.0233404	.0051225	.0020330	.0164612	.3734363
#2	-.000562	-.005079	.0205695	.0036819	.0011978	.0200549	.3735790
#3	-.000065	-.006097	.0230349	.0084734	.0026796	.0126494	.3726639

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000112	.0014020	13.42223	-.000235	.0019942	.0248252	.0021429
Stddev	.000030	.0001222	.01664	.000103	.0001255	.0002904	.0052939
%RSD	26.38392	8.719410	.1239726	43.86472	6.295206	1.169973	247.0476
#1	-.000135	.0015429	13.42125	-.000116	.0019047	.0246496	.0075074
#2	-.000079	.0013394	13.40610	-.000300	.0021377	.0246657	-.003077
#3	-.000123	.0013238	13.43934	-.000290	.0019401	.0251605	.001999

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.372774	1.011501	.0092865	-.000435	313.3215	.0006974	.2726940
Stddev	.001882	.011242	.0001752	.000307	5.4852	.0011682	.0012829
%RSD	.1370798	1.111399	1.886328	70.51478	1.750648	167.5218	.4704444
#1	1.372134	1.021507	.0091879	-.000723	317.5021	.0002272	.2715699
#2	1.374892	1.013659	.0091830	-.000471	315.3518	.0020274	.2724206
#3	1.371295	.999336	.0094888	-.000112	307.1107	-.000163	.2740916

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.302985	.0310241	.0000950	-.001248	-.000136	.6104802	.1059103
Stddev	.028241	.0005234	.0002357	.000820	.000131	.0058622	.0034644
%RSD	2.167434	1.687175	248.1965	65.73001	95.94801	.9602540	3.271046
#1	1.326956	.0314919	.0003637	-.000320	-.000067	.6131840	.1080519
#2	1.310146	.0304588	-.000077	-.001547	-.000054	.6037541	.1077656
#3	1.271852	.0311217	-.000002	-.001876	-.000287	.6145025	.1019134

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1752-04. Acquired: 4/14/2025 22:53:33 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5286225	-.001567	.0866993
Stddev	.0041069	.000219	.0001130
%RSD	.7769040	13.98152	.1303613
#1	.5245060	-.001348	.0868267
#2	.5286420	-.001569	.0866602
#3	.5327197	-.001786	.0866111

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2596.332	63592.92	13620.91	1717.053	3871.351
Stddev	10.432	57.16	42.87	2.311	11.320
%RSD	.4017828	.0898860	.3147458	.1345887	.2923938
#1	2594.852	63658.93	13575.88	1719.282	3872.598
#2	2607.424	63559.66	13661.23	1717.211	3881.996
#3	2586.719	63560.18	13625.62	1714.668	3859.460

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1752-06 Acquired: 4/14/2025 22:57:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002048	-.006726	.0334190	.0064325	.0028657	.0804360	.3023993
Stddev	.002860	.001398	.0011237	.0029860	.0024443	.0022753	.0019924
%RSD	139.6838	20.78218	3.362555	46.42035	85.29429	2.828717	.6588553
#1	-.000753	-.008054	.0344505	.0063794	.0013626	.0821383	.3045426
#2	-.005327	-.005267	.0335850	.0034735	.0015485	.0813180	.3020517
#3	-.000063	-.006858	.0322215	.0094448	.0056862	.0778518	.3006036

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002036	.0003073	9.184594	-.000727	-.000494	.0153834	.0073999
Stddev	.0000432	.0000260	.033461	.000266	.000085	.0002421	.0009873
%RSD	21.21355	8.463793	.3643134	36.54047	17.27136	1.573639	13.34191
#1	.0002534	.0003356	9.184782	-.001034	-.000513	.0151717	.0084311
#2	.0001804	.0003015	9.217960	-.000581	-.000401	.0153313	.0064633
#3	.0001769	.0002846	9.151039	-.000566	-.000569	.0156473	.0073054

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0458870	2.971444	.0078105	-.000634	312.1755	.0006776	.1118990
Stddev	.0005513	.020385	.0002289	.000210	.8280	.0009019	.0008450
%RSD	1.201373	.6860252	2.930677	33.07476	.2652362	133.1086	.7551671
#1	.0463181	2.957887	.0080224	-.000441	313.1311	.0016507	.1128341
#2	.0460770	2.994887	.0075677	-.000603	311.6717	-.000130	.1111903
#3	.0452658	2.961558	.0078412	-.000857	311.7237	.000512	.1116725

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.638825	.0386875	-.000280	-.000338	-.000750	.4624048	.0263670
Stddev	.018692	.0006682	.000311	.000518	.000309	.0040488	.0013814
%RSD	1.140592	1.727260	110.9931	152.9496	41.24148	.8755894	5.239040
#1	1.642268	.0394509	-.000176	-.000924	-.001082	.4577297	.0275067
#2	1.618650	.0382081	-.000035	-.000151	-.000698	.4647326	.0248307
#3	1.655556	.0384036	-.000630	.000060	-.000470	.4647521	.0267635

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1752-06 Acquired: 4/14/2025 22:57:58 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2823424	-.003733	.0677016
Stddev	.0034174	.000671	.0003972
%RSD	1.210385	17.96545	.5866385
#1	.2862877	-.004489	.0680894
#2	.2802990	-.003211	.0677199
#3	.2804406	-.003498	.0672957

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2681.565	65439.43	13734.50	1790.339	3899.962
Stddev	8.019	101.83	22.50	5.283	8.741
%RSD	.2990519	.1556168	.1638326	.2950752	.2241276
#1	2684.026	65329.65	13740.08	1785.059	3907.935
#2	2688.065	65530.80	13709.74	1790.332	3901.335
#3	2672.603	65457.85	13753.69	1795.625	3890.615

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1752-08 Acquired: 4/14/2025 23:02:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001007	-.005888	.0123612	.0026468	.0023164	.0857562	.3807250
Stddev	.001691	.001160	.0006557	.0022860	.0012943	.0084702	.0012771
%RSD	167.8679	19.70787	5.304571	86.36566	55.87411	9.877051	.3354391
#1	-.000281	-.006884	.0117344	.0042155	.0008668	.0920773	.3818347
#2	.000199	-.006166	.0130424	.0037010	.0027263	.0761321	.3810112
#3	-.002940	-.004614	.0123067	.0000240	.0033562	.0890590	.3793290

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001864	.0006608	9.041033	.0010586	-.000268	.0250279	.0703566
Stddev	.0000090	.0000867	.014451	.0001153	.000378	.0001301	.0014943
%RSD	4.831845	13.12886	.1598332	10.89146	141.2014	.5198005	2.123898
#1	.0001760	.0007587	9.053950	.0011894	-.000012	.0251528	.0686311
#2	.0001914	.0006297	9.025427	.0009717	-.000702	.0248931	.0712182
#3	.0001919	.0005938	9.043722	.0010148	-.000089	.0250379	.0712205

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1773876	2.101196	.0138563	-.000642	295.9862	.0009676	.1549540
Stddev	.0003673	.008701	.0001007	.000234	3.2983	.0006493	.0010594
%RSD	.2070831	.4140876	.7268260	36.46612	1.114339	67.10560	.6837138
#1	.1777994	2.103117	.0139571	-.000374	299.7721	.0013415	.1538820
#2	.1770937	2.091696	.0138562	-.000747	294.4519	.0002178	.1549797
#3	.1772697	2.108776	.0137557	-.000805	293.7344	.0013433	.1560004

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.258237	.0318456	.0000030	.0007547	-.000350	.3797030	.0220414
Stddev	.007411	.0003959	.0001719	.0009991	.000513	.0035853	.0040570
%RSD	.5889859	1.243043	5750.437	132.3836	146.4815	.9442278	18.40639
#1	1.264034	.0317223	-.000195	-.000329	-.000942	.3829369	.0226768
#2	1.260790	.0322885	.000110	.001640	-.000033	.3803246	.0257432
#3	1.249887	.0315261	.000094	.000953	-.000075	.3758476	.0177041

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: Q1752-08 Acquired: 4/14/2025 23:02:25 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2895249	-.003994	.0733786
Stddev	.0056211	.000222	.0001155
%RSD	1.941504	5.564450	.1574510
#1	.2909251	-.004245	.0734996
#2	.2943135	-.003822	.0732695
#3	.2833360	-.003915	.0733666

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2678.277	65975.08	12834.17	1811.139	3926.954
Stddev	.930	80.03	28.40	7.137	1.830
%RSD	.0347191	.1212981	.2213175	.3940590	.0465903
#1	2677.817	65948.91	12801.86	1814.674	3928.209
#2	2679.347	65911.41	12845.45	1802.924	3924.855
#3	2677.667	66064.91	12855.21	1815.818	3927.799

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCV12 Acquired: 4/14/2025 23:06:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV11 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.757475	4.853323	4.828409	4.802317	4.825215	9.434112
Stddev	.031698	.059091	.018302	.028669	.024725	.024229
%RSD	.6662675	1.217534	.3790571	.5969771	.5124191	.2568285
#1	4.729754	4.832210	4.821544	4.784886	4.813123	9.426508
#2	4.750638	4.807688	4.814531	4.786661	4.808863	9.414596
#3	4.792033	4.920070	4.849151	4.835405	4.853659	9.461231

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.897762	.2286958	2.434041	23.89444	.9652877	2.443740
Stddev	.019965	.0008050	.008011	.03524	.0041358	.008144
%RSD	.2017104	.3519996	.3291066	.1474969	.4284523	.3332688
#1	9.914579	.2278021	2.431721	23.86900	.9686834	2.442011
#2	9.903010	.2289213	2.427446	23.87965	.9606818	2.436599
#3	9.875698	.2293640	2.442955	23.93467	.9664979	2.452610

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.223591	5.057546	2.378820	23.19543	2.424651	1.204253
Stddev	.005189	.014776	.007046	.12274	.008251	.003328
%RSD	.4240440	.2921649	.2962017	.5291600	.3402872	.2763724
#1	1.220969	5.064262	2.372594	23.06560	2.421687	1.207890
#2	1.220238	5.040605	2.377397	23.30958	2.418292	1.201360
#3	1.229568	5.067773	2.386469	23.21112	2.433974	1.203509

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 27.52088	2.384350	2.410413	27.18895	4.565890	4.879024
Stddev	.28344	.007271	.012305	.26449	.022137	.023570
%RSD	1.029896	.3049347	.5104766	.9727677	.4848378	.4830839
#1	27.80209	2.382823	2.420153	27.41578	4.540668	4.862056
#2	27.23527	2.377965	2.396584	26.89844	4.582096	4.869081
#3	27.52528	2.392263	2.414501	27.25263	4.574908	4.905937

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCV12 Acquired: 4/14/2025 23:06:51 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV11 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.861277	4.767320	4.964567	4.924931	4.856910	4.681208
Stddev	.020530	.009855	.031890	.034323	.024736	.017005
%RSD	.4223156	.2067194	.6423458	.6969247	.5092986	.3632675
#1	4.850360	4.769918	4.985820	4.928182	4.845784	4.688049
#2	4.848511	4.756426	4.927898	4.889099	4.839691	4.661848
#3	4.884958	4.775615	4.979982	4.957514	4.885256	4.693727

Elem	Sr4077
Units	ppm
Avg	4.885940
Stddev	.037027
%RSD	.7578373
#1	4.927016
#2	4.875678
#3	4.855125

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2763.980	66870.74	13939.30	1816.860	4123.206
Stddev	7.642	267.48	41.54	12.318	10.450
%RSD	.2764887	.3999970	.2980269	.6779788	.2534391
#1	2769.851	66595.00	13986.97	1803.243	4126.225
#2	2766.750	67129.12	13910.79	1827.228	4131.814
#3	2755.339	66888.09	13920.15	1820.109	4111.579

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCB12 Acquired: 4/14/2025 23:11:03 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB11 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0028297	-.001349	.0000980	-.000518	-.001306	.0020160	-.000083
Stddev	.0015926	.000516	.0004386	.000979	.001196	.0023150	.000760
%RSD	56.28071	38.24069	447.3975	189.0720	91.61365	114.8296	915.4287
#1	.0036497	-.001945	.0005621	-.001649	-.001794	.0012349	-.000860
#2	.0038452	-.001037	.0000414	.000046	-.002181	.0046205	-.000047
#3	.0009942	-.001066	-.000309	.000049	.000057	.0001926	.000658

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000032	-.000073	-.004927	.0000505	.0000749	.0003293	-.000431
Stddev	.000028	.000108	.004376	.0002071	.0001159	.0004348	.003056
%RSD	88.75729	148.1394	88.81040	410.5737	154.7954	132.0691	708.4979
#1	-.000033	-.000145	-.008713	.0001512	-.000035	.0006752	-.003572
#2	-.000059	.000051	-.005931	-.000188	.000064	.0004714	.002531
#3	-.000003	-.000125	-.000136	.000188	.000196	-.000159	-.000253

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003420	.0143025	.0000311	-.000423	.0227053	.0006103	-.000443
Stddev	.0001251	.0054976	.0001911	.000401	.0028565	.0005791	.000312
%RSD	36.57106	38.43815	615.2579	94.68901	12.58063	94.89299	70.30172
#1	.0003577	.0189058	-.000170	-.000825	.0198397	.0000207	-.000196
#2	.0002099	.0082152	.000053	-.000023	.0227238	.0006319	-.000340
#3	.0004586	.0157864	.000210	-.000421	.0255526	.0011783	-.000793

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.007425	.0048077	.0000347	-.000367	.0000270	.0133751	.0020514
Stddev	.034724	.0005236	.0002111	.000557	.0001885	.0040781	.0026877
%RSD	467.6543	10.89185	608.9828	151.7034	697.2006	30.48997	131.0177
#1	-.013944	.0054119	.0002164	-.000781	-.000190	.0087934	.0019267
#2	.030096	.0044848	.0000845	-.000586	.000124	.0166074	-.000572
#3	-.038428	.0045264	-.000197	.000266	.000148	.0147245	.004799

Reviewed By:mohan
On:4/15/2025 1:12:12 PM
Inst Id :P4
LB :LB135424

Sample Name: CCB12 Acquired: 4/14/2025 23:11:03 Type: Unk
Method: NON EPA-6010-200.7 NEW LR(v3) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB11 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0005766	.0018424	.0000627
Stddev	.0010342	.0005552	.0000664
%RSD	179.3428	30.13683	105.9268
#1	.0006989	.0014993	.0001390
#2	.0015443	.0024831	.0000312
#3	-.000513	.0015450	.0000179

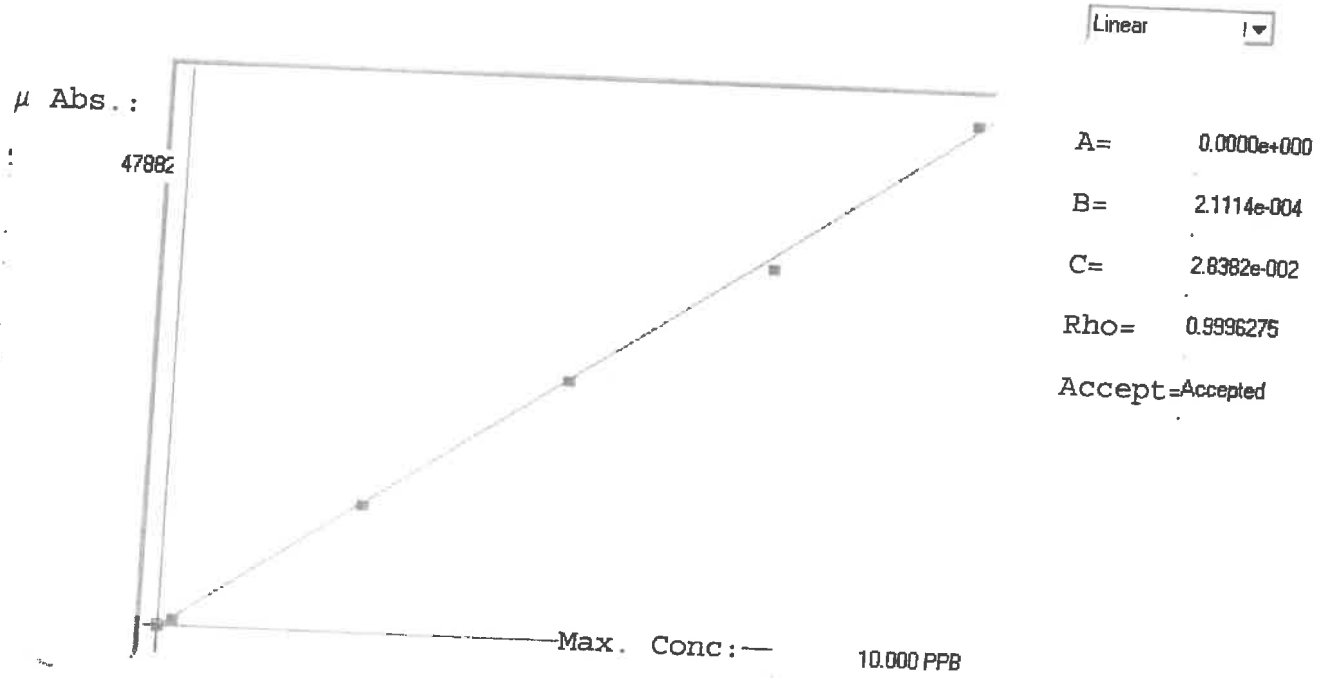
Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2819.072	68983.88	14120.29	1877.640	4468.159
Stddev	6.221	168.83	37.59	9.242	10.728
%RSD	.2206762	.2447337	.2662441	.4922210	.2400989
#1	2821.866	69078.99	14078.14	1882.342	4469.312
#2	2823.407	68788.95	14132.38	1866.992	4478.263
#3	2811.944	69083.69	14150.35	1883.586	4456.901

Reviewed By:jaswal
On:4/14/2025 11:29:11 PM
Inst Id :CV1
LB :LB135365

LB135365

7470A

INSTRUMENT ID: CV1



Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5	%D
0.0	0.000	0.046	0.046	82	0.000	82	0				-
0.2	0.200	0.201	0.001	817	0.0 %	817					1
2.5	2.500	2.508	0.008	11745	0.0 %	11745					0
5.0	5.000	5.006	0.006	23577	0.0 %	23577					0
7.5	7.500	7.301	-0.199	34445	0.0 %	34445					-3
10.0	10.000	10.138	0.138	47882	0.0 %	47882					1

Reviewed By:jaswal
On:4/14/2025 11:29:11 PM
Inst Id :CV1
LB :LB135365

LB135365 INSTRUMENT ID : CV1

Method: 7470A Operator: Admin Date of Analysis: 10 Apr 2025 09:47:26

Sample ID	Extended ID	µ Abs.	Conc.	Stnd Conc	Method	Units	Date	Type	Type
0.0 - 1	S0	82	-	0.0000	7470A	PPB	10 Apr 2025 12:41:43	S	Std
0.2 - 1	S0.2	817	-	0.2000	7470A	PPB	10 Apr 2025 12:44:01	S	Std
2.5 - 1	S2.5	11745	-	2.5000	7470A	PPB	10 Apr 2025 12:46:18	S	Std
5.0 - 1	S5	23577	-	5.0000	7470A	PPB	10 Apr 2025 12:48:35	S	Std
7.5 - 1	S7.5	34445	-	7.5000	7470A	PPB	10 Apr 2025 12:50:53	S	Std
10.0 - 1	S10	47882	-	10.0000	7470A	PPB	10 Apr 2025 12:53:10	S	Std
ICV83 - 1	ICV83	19091	4.0592		7470A	PPB	10 Apr 2025 13:01:29	U	SMPL
ICB83 - 1	ICB83	-223	-0.0187		7470A	PPB	10 Apr 2025 13:03:44	U	SMPL
CCV53 - 1	CCV53	23474	4.9846		7470A	PPB	10 Apr 2025 13:06:02	U	SMPL
CCB53 - 1	CCB53	-314	-0.0379		7470A	PPB	10 Apr 2025 13:08:17	U	SMPL
CRA - 1	CRA	774	0.1918		7470A	PPB	10 Apr 2025 13:10:35	U	SMPL
HighStd - 1	HighStd	46900	9.9306		7470A	PPB	10 Apr 2025 13:12:49	U	SMPL
ChkStd - 1	ChkStd	30395	6.4458		7470A	PPB	10 Apr 2025 13:15:04	U	SMPL
PB167539BL - 1	PBW	-370	-0.0497		7470A	PPB	10 Apr 2025 13:17:23	U	SMPL
PB167539BS - 1	LCSW	17884	3.8043		7470A	PPB	10 Apr 2025 13:22:27	U	SMPL
Q1743-04 - 1	TP-16	-200	-0.0138		7470A	PPB	10 Apr 2025 13:24:43	U	SMPL
Q1743-04DUP - 1	TP-16DUP	-53	0.0172		7470A	PPB	10 Apr 2025 13:27:01	U	SMPL
Q1743-04MS - 1	TP-16MS	17208	3.6616		7470A	PPB	10 Apr 2025 13:31:56	U	SMPL
Q1743-04MSD - 1	TP-16MSD	16676	3.5493		7470A	PPB	10 Apr 2025 13:34:12	U	SMPL
Q1744-02 - 1	B-158-SB01	-186	-0.0109		7470A	PPB	10 Apr 2025 13:36:30	U	SMPL
CCV54 - 1	CCV54	23308	4.9495		7470A	PPB	10 Apr 2025 13:38:47	U	SMPL
CCB54 - 1	CCB54	-214	-0.0168		7470A	PPB	10 Apr 2025 13:41:02	U	SMPL
Q1744-04 - 1	B-158-SB02	11	0.0307		7470A	PPB	10 Apr 2025 13:43:20	U	SMPL
Q1745-04 - 1	IB-6A-WC	73	0.0438		7470A	PPB	10 Apr 2025 13:45:36	U	SMPL
Q1745-12 - 1	IB-6.5-WC	-33	0.0214		7470A	PPB	10 Apr 2025 13:47:51	U	SMPL
Q1746-02 - 1	B-149-SB01	-36	0.0208		7470A	PPB	10 Apr 2025 13:50:06	U	SMPL
Q1746-04 - 1	B-149-SB02	16	0.0318		7470A	PPB	10 Apr 2025 13:52:23	U	SMPL
Q1748-04 - 1	IB-1.5-WC	47	0.0383		7470A	PPB	10 Apr 2025 13:54:39	U	SMPL
Q1748-08 - 1	IB-2A-WC	56	0.0402		7470A	PPB	10 Apr 2025 13:56:55	U	SMPL
Q1749-04 - 1	TP-14	29	0.0345		7470A	PPB	10 Apr 2025 13:59:13	U	SMPL
Q1752-02 - 1	TP-1	69	0.0430		7470A	PPB	10 Apr 2025 14:01:30	U	SMPL
Q1752-04 - 1	TP-2	22	0.0330		7470A	PPB	10 Apr 2025 14:03:46	U	SMPL
CCV55 - 1	CCV55	22979	4.8801		7470A	PPB	10 Apr 2025 14:06:02	U	SMPL
CCB55 - 1	CCB55	-313	-0.0377		7470A	PPB	10 Apr 2025 14:08:18	U	SMPL
Q1752-06 - 1	TP-4	-49	0.0180		7470A	PPB	10 Apr 2025 14:10:35	U	SMPL
Q1752-08 - 1	TP-3	12	0.0309		7470A	PPB	10 Apr 2025 14:12:51	U	SMPL
Q1753-04 - 1	WC-1	20	0.0326		7470A	PPB	10 Apr 2025 14:15:07	U	SMPL
Q1753-08 - 1	WC-2	48	0.0385		7470A	PPB	10 Apr 2025 14:17:23	U	SMPL
Q1754-02 - 1	TP-1	89	0.0472		7470A	PPB	10 Apr 2025 14:19:38	U	SMPL
Q1754-04 - 1	TP-1-CONCRETE	45	0.0379		7470A	PPB	10 Apr 2025 14:21:55	U	SMPL
PB167540BL - 1	PBW	17	0.0320		7470A	PPB	10 Apr 2025 14:24:12	U	SMPL
PB167540BS - 1	LCSW	19042	4.0488		7470A	PPB	10 Apr 2025 14:26:29	U	SMPL
Q1730-02 - 1	OU4-VSL-15-040325	2759	0.6109		7470A	PPB	10 Apr 2025 14:28:46	U	SMPL
Q1730-04 - 1	OU4-VSL-16-040325	157	0.0615		7470A	PPB	10 Apr 2025 14:31:04	U	SMPL
CCV56 - 1	CCV56	23272	4.9419		7470A	PPB	10 Apr 2025 14:36:06	U	SMPL
CCB56 - 1	CCB56	-261	-0.0267		7470A	PPB	10 Apr 2025 14:38:21	U	SMPL
Q1730-06 - 1	OU4-VSL-17-040325	818	0.2011		7470A	PPB	10 Apr 2025 14:40:39	U	SMPL
Q1730-08 - 1	OU4-PCS-TC-21-040325	134	0.0567		7470A	PPB	10 Apr 2025 14:42:54	U	SMPL
Q1730-10 - 1	OU4-PCS-TC-22-040325	163	0.0628		7470A	PPB	10 Apr 2025 14:45:10	U	SMPL
Q1730-12 - 1	OU4-PCS-TC-23-040325	147	0.0594		7470A	PPB	10 Apr 2025 14:47:25	U	SMPL
Q1730-14 - 1	OU4-PCS-TC-24-040325	0	0.0284		7470A	PPB	10 Apr 2025 14:49:42	U	SMPL
Q1730-16 - 1	OU4-PCS-TC-25-040325	115	0.0527		7470A	PPB	10 Apr 2025 14:51:58	U	SMPL
Q1730-18 - 1	OU4-PCS-TC-26-040325	112	0.0520		7470A	PPB	10 Apr 2025 14:54:14	U	SMPL
Q1730-20 - 1	OU4-CF-15-040325	97	0.0489		7470A	PPB	10 Apr 2025 14:56:31	U	SMPL
Q1730-20DUP - 1	OU4-CF-15-040325DUP	125	0.0548		7470A	PPB	10 Apr 2025 14:58:48	U	SMPL
Q1730-20MS - 1	OU4-CF-15-040325MS	18894	4.0176		7470A	PPB	10 Apr 2025 15:03:49	U	SMPL
CCV57 - 1	CCV57	22666	4.8140		7470A	PPB	10 Apr 2025 15:06:04	U	SMPL
CCB57 - 1	CCB57	-257	-0.0259		7470A	PPB	10 Apr 2025 15:08:22	U	SMPL
Q1730-20MSD - 1	OU4-CF-15-040325MSD	18537	3.9422		7470A	PPB	10 Apr 2025 15:10:40	U	SMPL
PB167517TB - 1	PB167517TB	-223	-0.0187		7470A	PPB	10 Apr 2025 15:12:55	U	SMPL
~~PB167493TB~~ - 1	PB167493TB	17	0.0320		7470A	PPB	10 Apr 2025 15:15:13	U	SMPL
Q1743-04LX5 - 1		18	0.0322		7470A	PPB	10 Apr 2025 15:17:28	U	SMPL
Q1743-04A - 1		16402	3.4914		7470A	PPB	10 Apr 2025 15:19:44	U	SMPL
Q1730-20LX5 - 1		45	0.0379		7470A	PPB	10 Apr 2025 15:22:01	U	SMPL
Q1730-20A - 1		16145	3.4372		7470A	PPB	10 Apr 2025 15:24:18	U	SMPL
CCV58 - 1	CCV58	23589	5.0089		7470A	PPB	10 Apr 2025 15:26:36	U	SMPL
CCB58 - 1	CCB58	-313	-0.0377		7470A	PPB	10 Apr 2025 15:28:54	U	SMPL

PB167517TB

PB167493TB

4/16/25

10 Apr 2025 15:45

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB167533

SOP ID : M3010A-Digestion-17

SDG No : N/A

Matrix : WATER

Pippete ID: ICP A

Balance ID : N/A

Filter paper ID : N/A

pH Strip ID : M6069

Hood ID : #3

Block ID: 1. HOT BLOCK #1 2. N/A

Start Digest Date: 04/09/2025 **Time :** 12:30 **Temp :** 96 °C

End Digest Date: 04/09/2025 **Time :** 15:35 **Temp :** 96 °C

Digestion tube ID: M5595

Block thermometer ID: MET-DIG. #1

Dig Technician Signature: SKB.

Supervisor Signature:

Temp : 1. 96°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
LFS-1	0.25	M6003
LFS-2	0.25	M6012
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
Conc. HNO3	3.00	M6158
1:1 HCL	5.00	MP85156
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

HOT BLOCK #1 CELL 50 Temp :96 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
04/09/25 16:35	SKB. met.dig	met. lab
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB167533

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
PB167517TB	PB167517TB	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	15
PB167533BL	PBW533	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	16
PB167533BS	LCS533	<2	5	25	Colorless	Colorless	Clear	Clear	M6003,M6012	17
Q1743-04MS	TP-16MS	<2	5	25	Colorless	Colorless	Clear	Clear	M6003,M6012	20
Q1743-04MSD	TP-16MSD	<2	5	25	Colorless	Colorless	Clear	Clear	M6003,M6012	21
Q1743-04DUP	TP-16DUP	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	19
Q1743-04	TP-16	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	18
Q1744-02	B-158-SB01	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	22
Q1744-04	B-158-SB02	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	23
Q1745-04	IB-6A-WC	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	24
Q1745-12	IB-6.5-WC	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	25
Q1746-02	B-149-SB01	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	26
Q1746-04	B-149-SB02	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	27
Q1748-04	IB-1.5-WC	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	28
Q1748-08	IB-2A-WC	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	29
Q1749-04	TP-14	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	30
Q1752-02	TP-1	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	31
Q1752-04	TP-2	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	32
Q1752-06	TP-3	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	33
Q1752-08	TP-4	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	34
Q1753-04	WC-1	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	35
Q1753-08	WC-2	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	36
Q1754-02	TP-1	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	37
Q1754-04	TP-1-CONCRETE	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	38

Alliance TECHNICAL GROUP

TCLP EXTRACTION LOGPAGE

PB16751

Sample ID	ClientID	TCLP Vessel ID	Sample Wt (g)	Volume Extraction Fluid #1 (mL)	Multi phasic	Phase Miscible	Phases Combined	Final Leachate PH	Metals Leachate Adj. PH	P
PB167517TB	LEB517	19	N/A	2000	N/A	N/A	N/A	4.93	1.5	T-
Q1743-04	TP-16	01	100.02	2000	N/A	N/A	N/A	5.8	1.0	T-1
Q1744-02	B-158-SB01	02	100.03	2000	N/A	N/A	N/A	3.0	1.5	T-1
Q1744-04	B-158-SB02	03	100.04	2000	N/A	N/A	N/A	3.0	1.0	T-1
Q1745-04	IB-6A-WC	04	100.02	2000	N/A	N/A	N/A	5.6	1.5	T-1
Q1745-12	IB-6.5-WC	05	100.03	2000	N/A	N/A	N/A	5.8	1.0	T-1
Q1746-02	B-149-SB01	06	100.02	2000	N/A	N/A	N/A	5.6	1.5	T-1
Q1746-04	B-149-SB02	07	100.03	2000	N/A	N/A	N/A	5.5	1.0	T-1
Q1748-04	IB-1.5-WC	08	100.02	2000	N/A	N/A	N/A	5.6	1.5	T-1
Q1748-08	IB-2A-WC	09	100.03	2000	N/A	N/A	N/A	6.0	1.0	T-1
Q1749-04	TP-14	10	100.04	2000	N/A	N/A	N/A	5.6	1.5	T-1
Q1752-02	TP-1	11	100.02	2000	N/A	N/A	N/A	5.8	1.0	T-2
Q1752-04	TP-2	12	100.03	2000	N/A	N/A	N/A	4.0	1.5	T-2
Q1752-06	TP-3	13	100.02	2000	N/A	N/A	N/A	3.5	1.0	T-2
Q1752-08	TP-4	14	100.03	2000	N/A	N/A	N/A	3.5	1.5	T-2
Q1753-04	WC-1	15	100.02	2000	N/A	N/A	N/A	3.0	1.0	T-2
Q1753-08	WC-2	16	100.02	2000	N/A	N/A	N/A	3.5	1.5	T-2
Q1754-02	TP-1	17	100.03	2000	N/A	N/A	N/A	5.6	1.0	T-2
Q1754-04	TP-1-CONCRETE	18	100.04	2000	N/A	N/A	N/A	8.6	1.5	T-2

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB167539

SOP ID : M7470A-Mercury-19

SDG No : NA

Matrix : WATER

Pippete ID: HG A

Balance ID : N/A

Filter paper ID : NA

pH Strip ID : M6069

Hood ID : #1

Block ID: 1. HG HOT BLOCK#3 2. N/A

Start Digest Date: 04/10/2025 **Time :** 09:45 **Temp :** 94 °C

End Digest Date: 04/10/2025 **Time :** 11:45 **Temp :** 95 °C

Digestion tube ID: M5595

Block thermometer ID: HG-DIG#3

Dig Technician Signature: MB

Supervisor Signature: JR

Temp : 1. 94°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
ICV	30mL	MP85182
CCV	30mL	MP85184
CRA	30mL	MP85186
Blank Spike	0.48mL	MP85175
Matrix Spike	0.48mL	MP85175

Chemical Used	ML/SAMPLE USED	Lot Number
HNO3/H2SO4(1:2)	2.5mL	MP84563
KMnO4 (5%)	4.5mL	MP84564
K2S2O8 (5%)	2.5mL	MP84565
Hydroxylamine HCL (12%)	2.0mL	MP84566
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	MP85176
0.05 ppb	S0.05	N/A	N/A
0.2 ppb	S0.2	30mL	MP85177
2.5 ppb	S2.5	30mL	MP85178
5.0 ppb	S5.0	30mL	MP85179
7.5 ppb	S7.5	30mL	MP85180
10.0 ppb	S10.0	30mL	MP85181
ICV	ICV	30mL	MP85182
ICB	ICB	30mL	MP85183
CCV	CCV	30mL	MP85184
CCB	CCB	30mL	MP85185
CRI	CRI	30mL	MP85186
CHK STD	CHK STD	30mL	MP85187

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
4/10/25 @ 12:25	MB - Dig. Lab	MB - Room Ext Cool
	Preparation Group	**Analysis Group**

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB167539

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Comment	Prep Pos
PB167517TB	PB167517TB	3	30	<2	N/A	3-1
PB167539BL	PBW539	30	30	<2	N/A	2
PB167539BS	LCS539	30	30	<2	MP85175	3
Q1743-04DUP	TP-16DUP	3	30	<2	N/A	5
Q1743-04MS	TP-16MS	3	30	<2	MP85175	6
Q1743-04MSD	TP-16MSD	3	30	<2	MP85175	7
Q1743-04	TP-16	3	30	<2	N/A	4
Q1744-02	B-158-SB01	3	30	<2	N/A	8
Q1744-04	B-158-SB02	3	30	<2	N/A	9
Q1745-04	IB-6A-WC	3	30	<2	N/A	10
Q1745-12	IB-6.5-WC	3	30	<2	N/A	11
Q1746-02	B-149-SB01	3	30	<2	N/A	12
Q1746-04	B-149-SB02	3	30	<2	N/A	13
Q1748-04	IB-1.5-WC	3	30	<2	N/A	14
Q1748-08	IB-2A-WC	3	30	<2	N/A	15
Q1749-04	TP-14	3	30	<2	N/A	16
Q1752-02	TP-1	3	30	<2	N/A	17
Q1752-04	TP-2	3	30	<2	N/A	18
Q1752-06	TP-4	3	30	<2	N/A	19
Q1752-08	TP-3	3	30	<2	N/A	20
Q1753-04	WC-1	3	30	<2	N/A	21
Q1753-08	WC-2	3	30	<2	N/A	22
Q1754-02	TP-1	3	30	<2	N/A	23
Q1754-04	TP-1-CONCRETE	3	30	<2	N/A	24

Alliance TECHNICAL GROUP

TCLP EXTRACTION LOGPAGE

PB167517

SOP ID : M1311-TCLP-15

SDG No : N/A

Weigh By : JP

Balance ID : WC SC-7

pH Meter ID : WC PH METER-1

Extraction By : JP

Filter By : JP

Pippete ID : WC

Tumbler ID : T-1 / T-2

TCLP Filter ID : 115525

Start Prep Date : 04/08/2025 **Time :** 16:40

End Prep Date : 04/09/2025 **Time :** 11:11

Combination Ratio : 20

ZHE Cleaning Batch : ~~N/A~~ JP

Initial Room Temperature: 23 °C

Final Room Temperature: 21 °C

TCLP Technician Signature : JP

Supervisor By : IZ

Standared Name	MLS USED	STD REF. # FROM LOG
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE U	Lot Number
TCLP-FLUID-1	N/A	WP110802
HCL-TCLP,1N	N/A	WP110803
HNO3-TCLP,1N	N/A	WP110804
pH Strips	N/A	W1931,W1934,W3171,W3172
pH Strips	W1941,W1942	W3166,W1938,W1939,W1940,
1 Liter Amber	N/A	90424-08
120ml Plastic bottle	N/A	405130101
1:1 HNO3	N/A	MP84041

Extraction Conformance/Non-Conformance Comments:

Matrix spikes are added after fiftration and before preservation. Particle size reduction is not required. TUMBLER T-1 /T-2 checked,30 rpm. Q1743-04 IS USED FOR MS-MSD.

JP

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
04/09/25 12:40	JP TCP Room	4/29 IZ
	Preparation Group	Analysis Group

04/09/25

Ref DJ

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

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB135365

Review By	mohan	Review On	4/14/2025 8:06:12 AM
Supervise By	jaswal	Supervise On	4/14/2025 11:29:11 PM

STD. NAME	STD REF.#
ICAL Standard	MP85176,MP85177,MP85178,MP85179,MP85180,MP85181
ICV Standard	MP85182
CCV Standard	MP85184
ICSA Standard	
CRI Standard	MP85186
LCS Standard	
Chk Standard	MP85183,MP85185,MP85187,MP85189

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	04/10/25 12:41		mohan	OK
2	S0.2	S0.2	CAL2	04/10/25 12:44		mohan	OK
3	S2.5	S2.5	CAL3	04/10/25 12:46		mohan	OK
4	S5	S5	CAL4	04/10/25 12:48		mohan	OK
5	S7.5	S7.5	CAL5	04/10/25 12:50		mohan	OK
6	S10	S10	CAL6	04/10/25 12:53		mohan	OK
7	ICV83	ICV83	ICV	04/10/25 13:01		mohan	OK
8	ICB83	ICB83	ICB	04/10/25 13:03		mohan	OK
9	CCV53	CCV53	CCV	04/10/25 13:06		mohan	OK
10	CCB53	CCB53	CCB	04/10/25 13:08		mohan	OK
11	CRA	CRA	CRDL	04/10/25 13:10		mohan	OK
12	HighStd	HighStd	HIGH STD	04/10/25 13:12		mohan	OK
13	ChkStd	ChkStd	SAM	04/10/25 13:15		mohan	OK
14	PB167539BL	PB167539BL	MB	04/10/25 13:17		mohan	OK
15	PB167539BS	PB167539BS	LCS	04/10/25 13:22		mohan	OK
16	Q1743-04	TP-16	SAM	04/10/25 13:24		mohan	OK
17	Q1743-04DUP	TP-16DUP	DUP	04/10/25 13:27		mohan	OK
18	Q1743-04MS	TP-16MS	MS	04/10/25 13:31		mohan	OK

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

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB135365

Review By	mohan	Review On	4/14/2025 8:06:12 AM
Supervise By	jaswal	Supervise On	4/14/2025 11:29:11 PM

STD. NAME	STD REF.#
ICAL Standard	MP85176,MP85177,MP85178,MP85179,MP85180,MP85181
ICV Standard	MP85182
CCV Standard	MP85184
ICSA Standard	
CRI Standard	MP85186
LCS Standard	
Chk Standard	MP85183,MP85185,MP85187,MP85189

19	Q1743-04MSD	TP-16MSD	MSD	04/10/25 13:34		mohan	OK
20	Q1744-02	B-158-SB01	SAM	04/10/25 13:36		mohan	OK
21	CCV54	CCV54	CCV	04/10/25 13:38		mohan	OK
22	CCB54	CCB54	CCB	04/10/25 13:41		mohan	OK
23	Q1744-04	B-158-SB02	SAM	04/10/25 13:43		mohan	OK
24	Q1745-04	IB-6A-WC	SAM	04/10/25 13:45		mohan	OK
25	Q1745-12	IB-6.5-WC	SAM	04/10/25 13:47		mohan	OK
26	Q1746-02	B-149-SB01	SAM	04/10/25 13:50		mohan	OK
27	Q1746-04	B-149-SB02	SAM	04/10/25 13:52		mohan	OK
28	Q1748-04	IB-1.5-WC	SAM	04/10/25 13:54		mohan	OK
29	Q1748-08	IB-2A-WC	SAM	04/10/25 13:56		mohan	OK
30	Q1749-04	TP-14	SAM	04/10/25 13:59		mohan	OK
31	Q1752-02	TP-1	SAM	04/10/25 14:01		mohan	OK
32	Q1752-04	TP-2	SAM	04/10/25 14:03		mohan	OK
33	CCV55	CCV55	CCV	04/10/25 14:06		mohan	OK
34	CCB55	CCB55	CCB	04/10/25 14:08		mohan	OK
35	Q1752-06	TP-4	SAM	04/10/25 14:10		mohan	OK
36	Q1752-08	TP-3	SAM	04/10/25 14:12		mohan	OK
37	Q1753-04	WC-1	SAM	04/10/25 14:15		mohan	OK
38	Q1753-08	WC-2	SAM	04/10/25 14:17		mohan	OK

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

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB135365

Review By	mohan	Review On	4/14/2025 8:06:12 AM
Supervise By	jaswal	Supervise On	4/14/2025 11:29:11 PM

STD. NAME	STD REF.#
ICAL Standard	MP85176,MP85177,MP85178,MP85179,MP85180,MP85181
ICV Standard	MP85182
CCV Standard	MP85184
ICSA Standard	
CRI Standard	MP85186
LCS Standard	
Chk Standard	MP85183,MP85185,MP85187,MP85189

39	Q1754-02	TP-1	SAM	04/10/25 14:19		mohan	OK
40	Q1754-04	TP-1-CONCRETE	SAM	04/10/25 14:21		mohan	OK
41	PB167540BL	PB167540BL	MB	04/10/25 14:24		mohan	OK
42	PB167540BS	PB167540BS	LCS	04/10/25 14:26		mohan	OK
43	Q1730-02	OU4-VSL-15-040325	SAM	04/10/25 14:28		mohan	OK
44	Q1730-04	OU4-VSL-16-040325	SAM	04/10/25 14:31		mohan	OK
45	CCV56	CCV56	CCV	04/10/25 14:36		mohan	OK
46	CCB56	CCB56	CCB	04/10/25 14:38		mohan	OK
47	Q1730-06	OU4-VSL-17-040325	SAM	04/10/25 14:40		mohan	OK
48	Q1730-08	OU4-PCS-TC-21-040	SAM	04/10/25 14:42		mohan	OK
49	Q1730-10	OU4-PCS-TC-22-040	SAM	04/10/25 14:45		mohan	OK
50	Q1730-12	OU4-PCS-TC-23-040	SAM	04/10/25 14:47		mohan	OK
51	Q1730-14	OU4-PCS-TC-24-040	SAM	04/10/25 14:49		mohan	OK
52	Q1730-16	OU4-PCS-TC-25-040	SAM	04/10/25 14:51		mohan	OK
53	Q1730-18	OU4-PCS-TC-26-040	SAM	04/10/25 14:54		mohan	OK
54	Q1730-20	OU4-CF-15-040325	SAM	04/10/25 14:56		mohan	OK
55	Q1730-20DUP	OU4-CF-15-040325D	DUP	04/10/25 14:58		mohan	OK
56	Q1730-20MS	OU4-CF-15-040325M	MS	04/10/25 15:03		mohan	OK
57	CCV57	CCV57	CCV	04/10/25 15:06		mohan	OK
58	CCB57	CCB57	CCB	04/10/25 15:08		mohan	OK

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

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB135365

Review By	mohan	Review On	4/14/2025 8:06:12 AM
Supervise By	jaswal	Supervise On	4/14/2025 11:29:11 PM

STD. NAME	STD REF.#
ICAL Standard	MP85176,MP85177,MP85178,MP85179,MP85180,MP85181
ICV Standard	MP85182
CCV Standard	MP85184
ICSA Standard	
CRI Standard	MP85186
LCS Standard	
Chk Standard	MP85183,MP85185,MP85187,MP85189

59	Q1730-20MSD	OU4-CF-15-040325M	MSD	04/10/25 15:10		mohan	OK
60	PB167517TB	PB167517TB	MB	04/10/25 15:12		mohan	OK
61	PB167540TB	PB167540TB	MB	04/10/25 15:15		mohan	OK
62	Q1743-04L	TP-16L	SD	04/10/25 15:17		mohan	OK
63	Q1743-04A	TP-16A	PS	04/10/25 15:19		mohan	OK
64	Q1730-20L	OU4-CF-15-040325L	SD	04/10/25 15:22		mohan	OK
65	Q1730-20A	OU4-CF-15-040325A	PS	04/10/25 15:24		mohan	OK
66	CCV58	CCV58	CCV	04/10/25 15:26		mohan	OK
67	CCB58	CCB58	CCB	04/10/25 15:28		mohan	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135373

Review By	jaswal	Review On	4/11/2025 8:35:52 AM
Supervise By	kareem	Supervise On	4/11/2025 10:25:08 AM

STD. NAME	STD REF.#
ICAL Standard	MP85016,MP85017,MP85018,MP85019,MP85020,MP85022
ICV Standard	MP85023
CCV Standard	MP85026
ICSA Standard	MP85024,MP85025
CRI Standard	MP85022
LCS Standard	
Chk Standard	MP85030,MP85031

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	04/10/25 09:30		Kareem	OK
2	S1	S1	CAL2	04/10/25 09:35		Kareem	OK
3	S2	S2	CAL3	04/10/25 09:39		Kareem	OK
4	S3	S3	CAL4	04/10/25 09:43		Kareem	OK
5	S4	S4	CAL5	04/10/25 09:47		Kareem	OK
6	S5	S5	CAL6	04/10/25 09:51		Kareem	OK
7	ICV01	ICV01	ICV	04/10/25 10:09	ICV01 Fail For Be,Cd,Ca,Co,Mg,Mn,NI,V (200.7)	Kareem	OK
8	LLICV01	LLICV01	LLICV	04/10/25 10:25		Kareem	OK
9	ICB01	ICB01	ICB	04/10/25 10:29		Kareem	OK
10	CRI01	CRI01	CRDL	04/10/25 10:33		Kareem	OK
11	ICSA01	ICSA01	ICSA	04/10/25 10:37		Kareem	OK
12	ICSAB01	ICSAB01	ICSAB	04/10/25 10:42		Kareem	OK
13	ICSADL	ICSADL	ICSA	04/10/25 10:46		Kareem	OK
14	ICSABDL	ICSABDL	ICSAB	04/10/25 10:50		Kareem	OK
15	CCV01	CCV01	CCV	04/10/25 11:00		Kareem	OK
16	CCB01	CCB01	CCB	04/10/25 11:21		Kareem	OK
17	PB167483BL	PB167483BL	MB	04/10/25 11:26		Kareem	OK
18	PB167483BS	PB167483BS	LCS	04/10/25 11:30		Kareem	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135373

Review By	jaswal	Review On	4/11/2025 8:35:52 AM
Supervise By	kareem	Supervise On	4/11/2025 10:25:08 AM

STD. NAME	STD REF.#
ICAL Standard	MP85016,MP85017,MP85018,MP85019,MP85020,MP85022
ICV Standard	MP85023
CCV Standard	MP85026
ICSA Standard	MP85024,MP85025
CRI Standard	MP85022
LCS Standard	
Chk Standard	MP85030,MP85031

19	PB167497BL	PB167497BL	MB	04/10/25 11:34		Kareem	OK
20	PB167497BS	PB167497BS	LCS	04/10/25 11:38		Kareem	OK
21	Q1715-01	WATER TREATMENT	SAM	04/10/25 11:42		Kareem	OK
22	Q1745-01	IB-6A-WC	SAM	04/10/25 11:47		Kareem	OK
23	Q1745-09	IB-6.5-WC	SAM	04/10/25 11:51		Kareem	OK
24	Q1748-01	IB-1.5-WC	SAM	04/10/25 11:55		Kareem	OK
25	Q1748-05	IB-2A-WC	SAM	04/10/25 11:59		Kareem	OK
26	Q1749-01	TP-14	SAM	04/10/25 12:03		Kareem	OK
27	CCV02	CCV02	CCV	04/10/25 12:08		Kareem	OK
28	CCB02	CCB02	CCB	04/10/25 12:12		Kareem	OK
29	Q1732-01	TT-8	SAM	04/10/25 12:17		Kareem	OK
30	Q1733-01	ETGI-328	SAM	04/10/25 12:21		Kareem	OK
31	Q1740-01	TP-20	SAM	04/10/25 12:25		Kareem	OK
32	Q1743-01	TP-16	SAM	04/10/25 12:29		Kareem	OK
33	Q1739-01	WC-LIQUID-2025040	SAM	04/10/25 12:33		Kareem	OK
34	Q1748-04	IB-1.5-WC	SAM	04/10/25 12:38		Kareem	OK
35	Q1748-08	IB-2A-WC	SAM	04/10/25 12:42		Kareem	OK
36	Q1754-02	TP-1	SAM	04/10/25 12:46		Kareem	OK
37	Q1754-04	TP-1-CONCRETE	SAM	04/10/25 12:51		Kareem	OK
38	Q1754-01	TP-1	SAM	04/10/25 12:55		Kareem	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135373

Review By	jaswal	Review On	4/11/2025 8:35:52 AM
Supervise By	kareem	Supervise On	4/11/2025 10:25:08 AM

STD. NAME	STD REF.#
ICAL Standard	MP85016,MP85017,MP85018,MP85019,MP85020,MP85022
ICV Standard	MP85023
CCV Standard	MP85026
ICSA Standard	MP85024,MP85025
CRI Standard	MP85022
LCS Standard	
Chk Standard	MP85030,MP85031

39	CCV03	CCV03	CCV	04/10/25 12:59		Kareem	OK
40	CCB03	CCB03	CCB	04/10/25 13:04		Kareem	OK
41	Q1754-03	TP-1-CONCRETE	SAM	04/10/25 13:07		Kareem	OK
42	Q1754-03DUP	TP-1-CONCRETEDUI	DUP	04/10/25 13:12		Kareem	OK
43	Q1754-03L	TP-1-CONCRETEL	SD	04/10/25 13:16		Kareem	OK
44	Q1754-03A	TP-1-CONCRETEA	PS	04/10/25 13:29		Kareem	OK
45	Q1715-01DUP	WATER TREATMENT	DUP	04/10/25 13:33		Kareem	OK
46	Q1715-01L	WATER TREATMENT	SD	04/10/25 13:38		Kareem	OK
47	Q1745-04	IB-6A-WC	SAM	04/10/25 13:42		Kareem	OK
48	Q1745-12	IB-6.5-WC	SAM	04/10/25 13:47		Kareem	OK
49	CCV04	CCV04	CCV	04/10/25 13:51		Kareem	OK
50	CCB04	CCB04	CCB	04/10/25 13:55		Kareem	OK
51	Q1715-01MS	WATER TREATMENT	MS	04/10/25 13:59		Kareem	OK
52	Q1715-01MSD	WATER TREATMENT	MSD	04/10/25 14:07		Kareem	OK
53	Q1715-01A	WATER TREATMENT	PS	04/10/25 14:11		Kareem	OK
54	Q1744-01	B-158-SB01	SAM	04/10/25 14:15		Kareem	OK
55	Q1744-03	B-158-SB02	SAM	04/10/25 14:19		Kareem	OK
56	Q1754-03MS	TP-1-CONCRETEMS	MS	04/10/25 14:23		Kareem	OK
57	Q1754-03MSD	TP-1-CONCRETEMS	MSD	04/10/25 14:27		Kareem	OK
58	Q1745-09DUP	IB-6.5-WCDUP	DUP	04/10/25 14:32		Kareem	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135373

Review By	jaswal	Review On	4/11/2025 8:35:52 AM
Supervise By	kareem	Supervise On	4/11/2025 10:25:08 AM

STD. NAME	STD REF.#
ICAL Standard	MP85016,MP85017,MP85018,MP85019,MP85020,MP85022
ICV Standard	MP85023
CCV Standard	MP85026
ICSA Standard	MP85024,MP85025
CRI Standard	MP85022
LCS Standard	
Chk Standard	MP85030,MP85031

59	Q1745-09L	IB-6.5-WCL	SD	04/10/25 14:36		Kareem	OK
60	CCV05	CCV05	CCV	04/10/25 14:44		Kareem	OK
61	CCB05	CCB05	CCB	04/10/25 14:49		Kareem	OK
62	Q1745-09A	IB-6.5-WCA	PS	04/10/25 14:57	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK
63	Q1745-09MS	IB-6.5-WCMS	MS	04/10/25 15:05	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK
64	Q1745-09MSD	IB-6.5-WCMSD	MSD	04/10/25 15:09	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK
65	PBW04	PBW04	MB	04/10/25 15:14		Kareem	OK
66	LCSW04	LCSW04	LCS	04/10/25 15:18	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK
67	PBS04	PBS04	MB	04/10/25 15:23		Kareem	OK
68	LCSS04	LCSS04	LCS	04/10/25 15:27	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK
69	PBW05	PBW05	MB	04/10/25 15:31		Kareem	OK
70	PBS05	PBS05	MB	04/10/25 15:35		Kareem	OK
71	WATER MDL-4	WATER MDL-4	SAM	04/10/25 15:40		Kareem	OK
72	CCV06	CCV06	CCV	04/10/25 15:44		Kareem	OK
73	CCB06	CCB06	CCB	04/10/25 15:48		Kareem	OK
74	WATER MDL-5	WATER MDL-5	SAM	04/10/25 15:52		Kareem	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135373

Review By	jaswal	Review On	4/11/2025 8:35:52 AM
Supervise By	kareem	Supervise On	4/11/2025 10:25:08 AM

STD. NAME	STD REF.#
ICAL Standard	MP85016,MP85017,MP85018,MP85019,MP85020,MP85022
ICV Standard	MP85023
CCV Standard	MP85026
ICSA Standard	MP85024,MP85025
CRI Standard	MP85022
LCS Standard	
Chk Standard	MP85030,MP85031

75	SOIL MDL-4	SOIL MDL-4	SAM	04/10/25 16:09		Kareem	OK
76	Q1746-01	B-149-SB01	SAM	04/10/25 16:17		Kareem	OK
77	Q1746-03	B-149-SB02	SAM	04/10/25 16:22		Kareem	OK
78	PB167490BL	PB167490BL	MB	04/10/25 16:26		Kareem	OK
79	PB167490BS	PB167490BS	LCS	04/10/25 16:39	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK
80	PB167517TB	PB167517TB	MB	04/10/25 16:43		Kareem	OK
81	Q1744-02	B-158-SB01	SAM	04/10/25 16:47		Kareem	OK
82	Q1744-04	B-158-SB02	SAM	04/10/25 16:52	Confirm TCLP for Ba	Kareem	OK
83	CCV07	CCV07	CCV	04/10/25 16:56		Kareem	OK
84	CCB07	CCB07	CCB	04/10/25 17:00		Kareem	OK
85	Q1780-01	001-WILLETS-PT-BL	SAM	04/10/25 17:05		Kareem	OK
86	Q1780-02	002-35TH-AVE(MAR)	SAM	04/10/25 17:09		Kareem	OK
87	Q1780-02DUP	002-35TH-AVE(MAR)	DUP	04/10/25 17:13		Kareem	OK
88	Q1780-02L	002-35TH-AVE(MAR)	SD	04/10/25 17:18		Kareem	OK
89	Q1780-02MS	002-35TH-AVE(MAR)	MS	04/10/25 17:22	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK
90	Q1780-02MSD	002-35TH-AVE(MAR)	MSD	04/10/25 17:26	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135373

Review By	jaswal	Review On	4/11/2025 8:35:52 AM
Supervise By	kareem	Supervise On	4/11/2025 10:25:08 AM

STD. NAME	STD REF.#
ICAL Standard	MP85016,MP85017,MP85018,MP85019,MP85020,MP85022
ICV Standard	MP85023
CCV Standard	MP85026
ICSA Standard	MP85024,MP85025
CRI Standard	MP85022
LCS Standard	
Chk Standard	MP85030,MP85031

91	Q1780-02A	002-35TH-AVE(MAR)	PS	04/10/25 17:30	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK
92	SOIL MDL-5	SOIL MDL-5	SAM	04/10/25 17:34		Kareem	OK
93	PB167554BL	PB167554BL	MB	04/10/25 17:39		Kareem	OK
94	PB167554BS	PB167554BS	LCS	04/10/25 17:43	0.1 ML OF M6004 AND M6013 WERE ADDED TO 10 ML OF SAMPLE	Kareem	OK
95	CCV08	CCV08	CCV	04/10/25 17:56		Kareem	OK
96	CCB08	CCB08	CCB	04/10/25 18:00		Kareem	OK
97	LR1	LR1	HIGH STD	04/10/25 18:05		Kareem	OK
98	LR2	LR2	HIGH STD	04/10/25 18:10		Kareem	OK
99	CCV09	CCV09	CCV	04/10/25 18:19		Kareem	OK
100	CCB09	CCB09	CCB	04/10/25 18:23		Kareem	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135424

Review By	jaswal	Review On	4/15/2025 1:01:00 PM
Supervise By	mohan	Supervise On	4/15/2025 1:12:12 PM

STD. NAME	STD REF.#
ICAL Standard	MP84981,MP84989,MP84988,MP84986,MP84985,MP84984,MP84983,MP84980,MP84982
ICV Standard	MP84990,MP84988
CCV Standard	
ICSA Standard	MP84993,MP84996
CRI Standard	MP84988
LCS Standard	
Chk Standard	MP84998,MP84999

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	04/14/25 13:13		Kareem	OK
2	S1	S1	CAL2	04/14/25 13:17		Kareem	OK
3	S2	S2	CAL3	04/14/25 13:22		Kareem	OK
4	S3	S3	CAL4	04/14/25 13:26		Kareem	OK
5	S4	S4	CAL5	04/14/25 13:30		Kareem	OK
6	S5	S5	CAL6	04/14/25 13:34		Kareem	OK
7	ICV01	ICV01	ICV	04/14/25 13:56		Kareem	OK
8	LLICV01	LLICV01	LLICV	04/14/25 14:01		Kareem	OK
9	ICB01	ICB01	ICB	04/14/25 14:05		Kareem	OK
10	CRI01	CRI01	CRDL	04/14/25 14:09		Kareem	OK
11	ICSA01	ICSA01	ICSA	04/14/25 14:14		Kareem	OK
12	ICSAB01	ICSAB01	ICSAB	04/14/25 14:18		Kareem	OK
13	ICSADL	ICSADL	ICSA	04/14/25 14:22		Kareem	OK
14	ICSABDL	ICSABDL	ICSAB	04/14/25 14:27		Kareem	OK
15	CCV01	CCV01	CCV	04/14/25 14:31		Kareem	OK
16	CCB01	CCB01	CCB	04/14/25 14:35		Kareem	OK
17	Q1743-04	TP-16	SAM	04/14/25 14:39		Kareem	OK
18	Q1743-04DUP	TP-16DUP	DUP	04/14/25 14:44		Kareem	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135424

Review By	jaswal	Review On	4/15/2025 1:01:00 PM
Supervise By	mohan	Supervise On	4/15/2025 1:12:12 PM

STD. NAME	STD REF.#
ICAL Standard	MP84981,MP84989,MP84988,MP84986,MP84985,MP84984,MP84983,MP84980,MP84982
ICV Standard	MP84990,MP84988
CCV Standard	
ICSA Standard	MP84993,MP84996
CRI Standard	MP84988
LCS Standard	
Chk Standard	MP84998,MP84999

19	Q1743-04L	TP-16L	SD	04/14/25 14:48		Kareem	OK
20	Q1743-04MS	TP-16MS	MS	04/14/25 14:52		Kareem	OK
21	Q1743-04MSD	TP-16MSD	MSD	04/14/25 14:57		Kareem	OK
22	Q1743-04A	TP-16A	PS	04/14/25 15:01		Kareem	OK
23	Q1774-02	TT-073-IDWGW-2025	SAM	04/14/25 15:05		Kareem	OK
24	Q1774-03	TT-074-IDWGW-2025	SAM	04/14/25 15:09		Kareem	OK
25	Q1774-04	TT-075-IDWGW-2025	SAM	04/14/25 15:14		Kareem	OK
26	Q1774-02DUP	TT-073-IDWGW-2025	DUP	04/14/25 15:18		Kareem	OK
27	CCV02	CCV02	CCV	04/14/25 15:22		Kareem	OK
28	CCB02	CCB02	CCB	04/14/25 15:26		Kareem	OK
29	Q1774-02L	TT-073-IDWGW-2025	SD	04/14/25 15:31		Kareem	OK
30	Q1774-02MS	TT-073-IDWGW-2025	MS	04/14/25 15:35		Kareem	OK
31	Q1774-02MSD	TT-073-IDWGW-2025	MSD	04/14/25 15:39		Kareem	OK
32	Q1774-02A	TT-073-IDWGW-2025	PS	04/14/25 15:43		Kareem	OK
33	Q1705-04	ETGI-327	SAM	04/14/25 15:47		Kareem	OK
34	Q1705-05	ETGI-275	SAM	04/14/25 15:52		Kareem	OK
35	PB167533BL	PB167533BL	MB	04/14/25 15:56		Kareem	OK
36	PB167533BS	PB167533BS	LCS	04/14/25 16:01		Kareem	OK
37	Q1753-04	WC-1	SAM	04/14/25 16:05		Kareem	OK
38	Q1753-08	WC-2	SAM	04/14/25 16:09		Kareem	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135424

Review By	jaswal	Review On	4/15/2025 1:01:00 PM
Supervise By	mohan	Supervise On	4/15/2025 1:12:12 PM

STD. NAME	STD REF.#
ICAL Standard	MP84981,MP84989,MP84988,MP84986,MP84985,MP84984,MP84983,MP84980,MP84982
ICV Standard	MP84990,MP84988
CCV Standard	
ICSA Standard	MP84993,MP84996
CRI Standard	MP84988
LCS Standard	
Chk Standard	MP84998,MP84999

39	CCV03	CCV03	CCV	04/14/25 16:28		Kareem	OK
40	CCB03	CCB03	CCB	04/14/25 16:32		Kareem	OK
41	Q1753-01	WC-1	SAM	04/14/25 16:37		Kareem	OK
42	Q1753-05	WC-2	SAM	04/14/25 16:41		Kareem	OK
43	Q1768-01	CRUSHED STONE	SAM	04/14/25 16:45	Zn high	Kareem	Dilution
44	Q1756-01	TP-9	SAM	04/14/25 16:49		Kareem	OK
45	Q1760-01	TP-17	SAM	04/14/25 16:53		Kareem	OK
46	Q1760-05	TP-15	SAM	04/14/25 16:57		Kareem	OK
47	Q1779-01	TP-22	SAM	04/14/25 17:01		Kareem	OK
48	Q1779-05	TP-23	SAM	04/14/25 17:06		Kareem	OK
49	Q1779-05DUP	TP-23DUP	DUP	04/14/25 17:10		Kareem	OK
50	Q1779-05L	TP-23L	SD	04/14/25 17:14		Kareem	OK
51	CCV04	CCV04	CCV	04/14/25 17:18		Kareem	OK
52	CCB04	CCB04	CCB	04/14/25 17:22		Kareem	OK
53	Q1779-05MS	TP-23MS	MS	04/14/25 17:27		Kareem	OK
54	Q1779-05MSD	TP-23MSD	MSD	04/14/25 17:31		Kareem	OK
55	Q1779-05A	TP-23A	PS	04/14/25 17:35		Kareem	OK
56	Q1781-01	WC-13	SAM	04/14/25 17:39		Kareem	OK
57	Q1781-05	WC-12	SAM	04/14/25 17:43		Kareem	OK
58	Q1781-09	WC-11	SAM	04/14/25 17:48		Kareem	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135424

Review By	jaswal	Review On	4/15/2025 1:01:00 PM
Supervise By	mohan	Supervise On	4/15/2025 1:12:12 PM

STD. NAME	STD REF.#
ICAL Standard	MP84981,MP84989,MP84988,MP84986,MP84985,MP84984,MP84983,MP84980,MP84982
ICV Standard	MP84990,MP84988
CCV Standard	
ICSA Standard	MP84993,MP84996
CRI Standard	MP84988
LCS Standard	
Chk Standard	MP84998,MP84999

59	PB167567BL	PB167567BL	MB	04/14/25 17:52		Kareem	OK
60	PB167567BS	PB167567BS	LCS	04/14/25 17:56		Kareem	OK
61	PB167482BL	PB167482BL	MB	04/14/25 18:00		Kareem	OK
62	PB167482BS	PB167482BS	LCS	04/14/25 18:12		Kareem	OK
63	CCV05	CCV05	CCV	04/14/25 18:16		Kareem	OK
64	CCB05	CCB05	CCB	04/14/25 18:20		Kareem	OK
65	PB167530BL	PB167530BL	MB	04/14/25 18:25		Kareem	OK
66	PB167530BS	PB167530BS	LCS	04/14/25 18:29		Kareem	OK
67	PB167548BL	PB167548BL	MB	04/14/25 18:33		Kareem	OK
68	PB167548BS	PB167548BS	LCS	04/14/25 18:38		Kareem	OK
69	PB167566BL	PB167566BL	MB	04/14/25 18:42		Kareem	OK
70	PB167566BS	PB167566BS	LCS	04/14/25 18:46		Kareem	OK
71	PB167500BL	PB167500BL	MB	04/14/25 18:50		Kareem	OK
72	PB167500BS	PB167500BS	LCS	04/14/25 18:54		Kareem	OK
73	Q1768-01DL	CRUSHED STONEDL	SAM	04/14/25 18:58	5X for Zn	Kareem	Confirms
74	Q1730-01	OU4-VSL-15-040325	SAM	04/14/25 19:02		Kareem	OK
75	CCV06	CCV06	CCV	04/14/25 19:07		Kareem	OK
76	CCB06	CCB06	CCB	04/14/25 19:11		Kareem	OK
77	Q1730-03	OU4-VSL-16-040325	SAM	04/14/25 19:15		Kareem	OK
78	Q1730-05	OU4-VSL-17-040325	SAM	04/14/25 19:19		Kareem	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135424

Review By	jaswal	Review On	4/15/2025 1:01:00 PM
Supervise By	mohan	Supervise On	4/15/2025 1:12:12 PM

STD. NAME	STD REF.#
ICAL Standard	MP84981,MP84989,MP84988,MP84986,MP84985,MP84984,MP84983,MP84980,MP84982
ICV Standard	MP84990,MP84988
CCV Standard	
ICSA Standard	MP84993,MP84996
CRI Standard	MP84988
LCS Standard	
Chk Standard	MP84998,MP84999

79	Q1730-07	OU4-PCS-TC-21-040	SAM	04/14/25 19:23		Kareem	OK
80	Q1730-09	OU4-PCS-TC-22-040	SAM	04/14/25 19:27		Kareem	OK
81	Q1730-11	OU4-PCS-TC-23-040	SAM	04/14/25 19:32		Kareem	OK
82	Q1730-13	OU4-PCS-TC-24-040	SAM	04/14/25 19:36		Kareem	OK
83	Q1730-15	OU4-PCS-TC-25-040	SAM	04/14/25 19:40		Kareem	OK
84	Q1730-17	OU4-PCS-TC-26-040	SAM	04/14/25 19:44		Kareem	OK
85	Q1730-19	OU4-CF-15-040325	SAM	04/14/25 19:49		Kareem	OK
86	Q1736-01	GST1	SAM	04/14/25 19:53		Kareem	OK
87	CCV07	CCV07	CCV	04/14/25 19:57		Kareem	OK
88	CCB07	CCB07	CCB	04/14/25 20:01		Kareem	OK
89	Q1736-02	GST2	SAM	04/14/25 20:05		Kareem	OK
90	Q1738-01	OK-02-040425	SAM	04/14/25 20:10		Kareem	OK
91	Q1738-01DUP	OK-02-040425DUP	DUP	04/14/25 20:14		Kareem	OK
92	Q1738-01L	OK-02-040425L	SD	04/14/25 20:18		Kareem	OK
93	Q1738-01MS	OK-02-040425MS	MS	04/14/25 20:22		Kareem	OK
94	Q1738-01MSD	OK-02-040425MSD	MSD	04/14/25 20:26		Kareem	OK
95	Q1738-01A	OK-02-040425A	PS	04/14/25 20:30		Kareem	OK
96	Q1746-02	B-149-SB01	SAM	04/14/25 20:34		Kareem	OK
97	Q1746-04	B-149-SB02	SAM	04/14/25 20:39		Kareem	OK
98	Q1749-04	TP-14	SAM	04/14/25 20:43		Kareem	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135424

Review By	jaswal	Review On	4/15/2025 1:01:00 PM
Supervise By	mohan	Supervise On	4/15/2025 1:12:12 PM

STD. NAME	STD REF.#
ICAL Standard	MP84981,MP84989,MP84988,MP84986,MP84985,MP84984,MP84983,MP84980,MP84982
ICV Standard	MP84990,MP84988
CCV Standard	
ICSA Standard	MP84993,MP84996
CRI Standard	MP84988
LCS Standard	
Chk Standard	MP84998,MP84999

99	CCV08	CCV08	CCV	04/14/25 20:48		Kareem	OK
100	CCB08	CCB08	CCB	04/14/25 20:52		Kareem	OK
101	Q1746-05	B-158-GW01	SAM	04/14/25 20:56		Kareem	OK
102	Q1746-06	B-149-GW01	SAM	04/14/25 21:00		Kareem	OK
103	Q1746-06DUP	B-149-GW01DUP	DUP	04/14/25 21:05		Kareem	OK
104	Q1746-06L	B-149-GW01L	SD	04/14/25 21:09		Kareem	OK
105	Q1746-06MS	B-149-GW01MS	MS	04/14/25 21:13		Kareem	OK
106	Q1746-06MSD	B-149-GW01MSD	MSD	04/14/25 21:17		Kareem	OK
107	Q1746-06A	B-149-GW01A	PS	04/14/25 21:21		Kareem	OK
108	Q1746-07	EB-2025-4-7	SAM	04/14/25 21:25		Kareem	OK
109	Q1771-01	TP-6C	SAM	04/14/25 21:30		Kareem	OK
110	Q1771-05	TP-7C	SAM	04/14/25 21:34		Kareem	OK
111	CCV09	CCV09	CCV	04/14/25 21:38		Kareem	OK
112	CCB09	CCB09	CCB	04/14/25 21:42		Kareem	OK
113	Q1771-09	TP-3A	SAM	04/14/25 21:46		Kareem	OK
114	Q1771-09DUP	TP-3ADUP	DUP	04/14/25 21:50		Kareem	OK
115	Q1771-09L	TP-3AL	SD	04/14/25 21:55		Kareem	OK
116	Q1771-09MS	TP-3AMS	MS	04/14/25 21:59		Kareem	OK
117	Q1771-09MSD	TP-3AMSD	MSD	04/14/25 22:03		Kareem	OK
118	Q1771-09A	TP-3AA	PS	04/14/25 22:07		Kareem	OK

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

Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB135424

Review By	jaswal	Review On	4/15/2025 1:01:00 PM
Supervise By	mohan	Supervise On	4/15/2025 1:12:12 PM

STD. NAME	STD REF.#
ICAL Standard	MP84981,MP84989,MP84988,MP84986,MP84985,MP84984,MP84983,MP84980,MP84982
ICV Standard	MP84990,MP84988
CCV Standard	
ICSA Standard	MP84993,MP84996
CRI Standard	MP84988
LCS Standard	
Chk Standard	MP84998,MP84999

119	Q1769-08	EB01-040925	SAM	04/14/25 22:11		Kareem	OK
120	Q1752-01	TP-1	SAM	04/14/25 22:15		Kareem	OK
121	Q1752-03	TP-2	SAM	04/14/25 22:19		Kareem	OK
122	Q1752-05	TP-4	SAM	04/14/25 22:23		Kareem	OK
123	CCV10	CCV10	CCV	04/14/25 22:28		Kareem	OK
124	CCB10	CCB10	CCB	04/14/25 22:32		Kareem	OK
125	Q1752-07	TP-3	SAM	04/14/25 22:36		Kareem	OK
126	CCV11	CCV11	CCV	04/14/25 22:40		Kareem	OK
127	CCB11	CCB11	CCB	04/14/25 22:44		Kareem	OK
128	Q1752-02	TP-1	SAM	04/14/25 22:49		Kareem	OK
129	Q1752-04	TP-2	SAM	04/14/25 22:53		Kareem	OK
130	Q1752-06	TP-4	SAM	04/14/25 22:57		Kareem	OK
131	Q1752-08	TP-3	SAM	04/14/25 23:02		Kareem	OK
132	CCV12	CCV12	CCV	04/14/25 23:06	Fail for Na	Kareem	OK
133	CCB12	CCB12	CCB	04/14/25 23:11		Kareem	OK

Alliance TECHNICAL GROUP

TCLP EXTRACTION LOGPAGE

PB167517

SOP ID : M1311-TCLP-15

SDG No : N/A

Weigh By : JP

Balance ID : WC SC-7

pH Meter ID : WC PH METER-1

Extraction By : JP

Filter By : JP

Pippete ID : WC

Tumbler ID : T-1 / T-2

TCLP Filter ID : 115525

Start Prep Date : 04/08/2025 **Time :** 16:40

End Prep Date : 04/09/2025 **Time :** 11:11

Combination Ratio : 20

ZHE Cleaning Batch : ~~N/A~~ JB

Initial Room Temperature: 23 °C

Final Room Temperature: 21 °C

TCLP Technician Signature : JB

Supervisor By : IZ

Standared Name	MLS USED	STD REF. # FROM LOG
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Chemical Used	ML/SAMPLE U	Lot Number
TCLP-FLUID-1	N/A	WP110802
HCL-TCLP,1N	N/A	WP110803
HNO3-TCLP,1N	N/A	WP110804
pH Strips	N/A	W1931,W1934,W3171,W3172
pH Strips	W1941,W1942	W3166,W1938,W1939,W1940,
1 Liter Amber	N/A	90424-08
120ml Plastic bottle	N/A	405130101
1:1 HNO3	N/A	MP84041

Extraction Conformance/Non-Conformance Comments:

Matrix spikes are added after fiftration and before preservation. Particle size reduction is not required. TUMBLER T-1 /T-2 checked,30 rpm. Q1743-04 IS USED FOR MS-MSD.

JB

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
04/09/25 12:40	JB / ICP Room	9129 / IFH
	Preparation Group	Analysis Group

04/09/25

IFH DJZ

Alliance TECHNICAL GROUP

TCLP EXTRACTION LOGPAGE

PB167517

Sample ID	ClientID	TCLP Vessel ID	Sample Wt (g)	Volume Extraction Fluid #1 (mL)	Multi phasic	Phase Miscible	Phases Combined	Final Leachate PH	Metals Leachate Adj. PH	Prep Pos
PB167517TB	LEB517	19	N/A	2000	N/A	N/A	N/A	4.93	1.5	T-2
Q1743-04	TP-16	01	100.02	2000	N/A	N/A	N/A	5.8	1.0	T-1
Q1744-02	B-158-SB01	02	100.03	2000	N/A	N/A	N/A	3.0	1.5	T-1
Q1744-04	B-158-SB02	03	100.04	2000	N/A	N/A	N/A	3.0	1.0	T-1
Q1745-04	IB-6A-WC	04	100.02	2000	N/A	N/A	N/A	5.6	1.5	T-1
Q1745-12	IB-6.5-WC	05	100.03	2000	N/A	N/A	N/A	5.8	1.0	T-1
Q1746-02	B-149-SB01	06	100.02	2000	N/A	N/A	N/A	5.6	1.5	T-1
Q1746-04	B-149-SB02	07	100.03	2000	N/A	N/A	N/A	5.5	1.0	T-1
Q1748-04	IB-1.5-WC	08	100.02	2000	N/A	N/A	N/A	5.6	1.5	T-1
Q1748-08	IB-2A-WC	09	100.03	2000	N/A	N/A	N/A	6.0	1.0	T-1
Q1749-04	TP-14	10	100.04	2000	N/A	N/A	N/A	5.6	1.5	T-1
Q1752-02	TP-1	11	100.02	2000	N/A	N/A	N/A	5.8	1.0	T-2
Q1752-04	TP-2	12	100.03	2000	N/A	N/A	N/A	4.0	1.5	T-2
Q1752-06	TP-3	13	100.02	2000	N/A	N/A	N/A	3.5	1.0	T-2
Q1752-08	TP-4	14	100.03	2000	N/A	N/A	N/A	3.5	1.5	T-2
Q1753-04	WC-1	15	100.02	2000	N/A	N/A	N/A	3.0	1.0	T-2
Q1753-08	WC-2	16	100.02	2000	N/A	N/A	N/A	3.5	1.5	T-2
Q1754-02	TP-1	17	100.03	2000	N/A	N/A	N/A	5.6	1.0	T-2
Q1754-04	TP-1-CONCRETE	18	100.04	2000	N/A	N/A	N/A	8.6	1.5	T-2

SampleID	ClientID	Sample Weight (g)	Filter Weight (g)	Filtrate (mL)	Filter + Solid (After 100°C)	% solids	% Dry Solids
PB167517TB	LEB517	N/A	N/A	N/A	N/A	N/A	N/A
Q1743-04	TP-16	N/A	N/A	N/A	N/A	100	N/A
Q1744-02	B-158-SB01	N/A	N/A	N/A	N/A	100	N/A
Q1744-04	B-158-SB02	N/A	N/A	N/A	N/A	100	N/A
Q1745-04	IB-6A-WC	N/A	N/A	N/A	N/A	100	N/A
Q1745-12	IB-6.5-WC	N/A	N/A	N/A	N/A	100	N/A
Q1746-02	B-149-SB01	N/A	N/A	N/A	N/A	100	N/A
Q1746-04	B-149-SB02	N/A	N/A	N/A	N/A	100	N/A
Q1748-04	IB-1.5-WC	N/A	N/A	N/A	N/A	100	N/A
Q1748-08	IB-2A-WC	N/A	N/A	N/A	N/A	100	N/A
Q1749-04	TP-14	N/A	N/A	N/A	N/A	100	N/A
Q1752-02	TP-1	N/A	N/A	N/A	N/A	100	N/A
Q1752-04	TP-2	N/A	N/A	N/A	N/A	100	N/A
Q1752-06	TP-3	N/A	N/A	N/A	N/A	100	N/A
Q1752-08	TP-4	N/A	N/A	N/A	N/A	100	N/A
Q1753-04	WC-1	N/A	N/A	N/A	N/A	100	N/A
Q1753-08	WC-2	N/A	N/A	N/A	N/A	100	N/A
Q1754-02	TP-1	N/A	N/A	N/A	N/A	100	N/A
Q1754-04	TP-1-CONCRETE	N/A	N/A	N/A	N/A	100	N/A

Alliance TECHNICAL GROUP

TCLP Fluid Determination

PB167517

Hot Block ID : WC S-1 /WC S-2

Thermometer ID : FLASHPOINT

SampleID	ClientID	Sample Weight (g)	Volume DI Water (mL)	PH after 5 min stir	PH after 10 min stir	Extraction Fluid 1 or 2	pH Extraction Fluid
PB167517TB	LEB517	N/A	N/A	N/A	N/A	#1	4.93
Q1743-04	TP-16	5.02	96.5	8.2	3.0	#1	4.93
Q1744-02	B-158-SB01	5.03	96.5	6.6	2.5	#1	4.93
Q1744-04	B-158-SB02	5.02	96.5	6.4	2.5	#1	4.93
Q1745-04	IB-6A-WC	5.01	96.5	8.0	3.0	#1	4.93
Q1745-12	IB-6.5-WC	5.02	96.5	7.6	2.5	#1	4.93
Q1746-02	B-149-SB01	5.03	96.5	7.0	2.0	#1	4.93
Q1746-04	B-149-SB02	5.04	96.5	7.6	2.5	#1	4.93
Q1748-04	IB-1.5-WC	5.01	96.5	7.6	2.5	#1	4.93
Q1748-08	IB-2A-WC	5.02	96.5	8.0	3.0	#1	4.93
Q1749-04	TP-14	5.03	96.5	7.2	2.5	#1	4.93
Q1752-02	TP-1	5.02	96.5	8.0	3.0	#1	4.93
Q1752-04	TP-2	5.03	96.5	6.6	2.5	#1	4.93
Q1752-06	TP-3	5.00	96.5	5.8	2.0	#1	4.93
Q1752-08	TP-4	5.01	96.5	5.6	2.0	#1	4.93
Q1753-04	WC-1	5.02	96.5	5.5	2.0	#1	4.93
Q1753-08	WC-2	5.03	96.5	6.0	2.5	#1	4.93
Q1754-02	TP-1	5.02	96.5	7.2	2.5	#1	4.93
Q1754-04	TP-1-CONCRETE	5.03	96.5	10.5	4.0	#1	4.93

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

Prep Standard - Chemical Standard Summary

Order ID : Q1746

Test : TCLP ICP Metals,TCLP Mercury

Prepbatch ID : PB167533,PB167539,

Sequence ID/Qc Batch ID: LB135365,LB135373,LB135373,LB135424,LB135424,

Standard ID :

MP84563,MP84564,MP84565,MP84566,MP84980,MP84981,MP84982,MP84983,MP84984,MP84985,MP84986,MP849
87,MP84988,MP84989,MP84990,MP84993,MP84996,MP84997,MP84998,MP84999,MP85016,MP85017,MP85018,MP
85019,MP85020,MP85021,MP85022,MP85023,MP85024,MP85025,MP85026,MP85030,MP85031,MP85156,MP85175,
MP85176,MP85177,MP85178,MP85179,MP85180,MP85181,MP85182,MP85183,MP85184,MP85185,MP85186,MP851
87,MP85189,

Chemical ID :

M4371,M4465,M4883,M4891,M4916,M5020,M5062,M5288,M5305,M5387,M5395,M5429,M5466,M5472,M5496,M5497
,M5516,M5519,M5520,M5521,M5532,M5545,M5658,M5739,M5747,M5748,M5751,M5768,M5789,M5798,M5799,M580
0,M5801,M5811,M5814,M5815,M5816,M5817,M5820,M5873,M5874,M5875,M5882,M5884,M5942,M5959,M5961,M596
2,M5970,M5977,M5978,M5981,M5983,M5985,M6003,M6012,M6019,M6020,M6021,M6023,M6025,M6028,M6030,M60
32,M6041,M6055,M6058,M6076,M6079,M6086,M6126,M6127,M6128,M6137,M6144,M6145,M6146,M6150,M6151,M6
152,M6153,M6155,M6156,M6158,M6159,M6160,W3112,

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3965	2:1 H2SO4 : HNO3	MP84563	02/18/2025	06/03/2025	Mohan Bera	None	None	Janvi Patel 02/19/2025

FROM 1600.00000ml of M6041 + 800.00000ml of M6126 = Final Quantity: 3200.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
65	POTASSIUM PERMANGANATE SOLUTION 5 %	MP84564	02/18/2025	08/18/2025	Mohan Bera	None	None	Janvi Patel 02/19/2025

FROM 100.00000gram of M4916 + 2000.00000ml of W3112 = Final Quantity: 2000.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
66	POTASSIUM PERSULFATE SOLUTION 5 %	MP84565	02/18/2025	08/06/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Janvi Patel 02/19/2025

FROM 100.00000ml of M4465 + 2000.00000ml of W3112 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
67	SODIUM CHLORIDE - HYDROXYL- CHLORIDE SOLUTION	MP84566	02/18/2025	06/25/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Janvi Patel 02/19/2025

FROM 2000.00000ml of W3112 + 240.00000gram of M4371 + 240.00000gram of M5884 = Final Quantity: 2000.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3947	S7(SFAM,6020,200.8)	MP84980	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 1.00000ml of M5799 + 1.00000ml of M5981 + 1.00000ml of M6079 + 1.00000ml of M6137 + 1.00000ml of M6153 + 1.90000ml of M6159 + 10.00000ml of M5942 + 10.00000ml of M5977 + 10.00000ml of M6158 + 2.00000ml of M5815 + 2.00000ml of M5817 + 4.00000ml of M6025 + 4.00000ml of M6032 + 4.90000ml of M5519 + 4.90000ml of M5811 + 5.00000ml of M6151 + 50.00000ml of M5305 + 829.60000ml of W3112 + 9.00000ml of M5751 + 9.00000ml of M6128 + 9.00000ml of M6145 + 9.90000ml of M6086 + 9.90000ml of M6127 + 9.90000ml of M6144 = Final Quantity: 1000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1122	ICPMS CALIB BLANK(S0/ICB/CCB)	MP84981	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 25.00000ml of M6151 + 4925.00000ml of W3112 + 50.00000ml of M6158 = Final Quantity: 5000.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2902	S8 ICPMS	MP84982	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 1.00000ml of M6159 + 2.50000ml of M5520 + 2.50000ml of M5811 + 5.00000ml of M6086 + 5.00000ml of M6127 + 5.00000ml of M6144 + 79.00000ml of MP84981 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3948	S6(SFAM,6020,200.8)	MP84983	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6158 + 48.50000ml of W3112 + 50.00000ml of MP84980 = Final Quantity: 100.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3949	S5(SFAM,6020,200.8)	MP84984	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6158 + 73.50000ml of W3112 + 25.00000ml of MP84980 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3954	S4(SFAM,6020,200.8)	MP84985	03/25/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6158 + 86.00000ml of W3112 + 12.50000ml of MP84980 = Final Quantity: 100.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3951	S3(SFAM, 6020,200.8)	MP84986	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6158 + 88.50000ml of W3112 + 10.00000ml of MP84983 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3955	S2CONC(SFAM,6020,200.8)	MP84987	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 0.00500ml of M6153 + 0.05000ml of M5798 + 0.05000ml of M5800 + 0.05000ml of M5801 + 0.05000ml of M5961 + 0.05000ml of M5981 + 0.05000ml of M6023 + 0.05000ml of M6025 + 0.05000ml of M6028 + 0.05000ml of M6030 + 0.05000ml of M6079 + 0.05000ml of M6128 + 0.10000ml of M5658 + 0.10000ml of M5751 + 0.10000ml of M6146 + 0.10000ml of M6159 + 0.25000ml of M5799 + 0.25000ml of M5811 + 0.25000ml of M5942 + 0.25000ml of M5962 + 0.25000ml of M5977 + 0.25000ml of M6021 + 0.25000ml of M6145 + 0.50000ml of M6032 + 0.50000ml of M6137 + 1.25000ml of M5815 + 1.25000ml of M5817 + 1.25000ml of M6151 + 2.50000ml of M5520 + 2.50000ml of M6086 + 2.50000ml of M6127 + 2.50000ml of M6144 + 2.50000ml of M6158 + 230.04500ml of W3112 = Final Quantity: 250.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3956	S2(SFAM,6020,200.8)	MP84988	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6158 + 98.00000ml of W3112 + 0.50000ml of MP84987 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3957	S1(SFAM,6020,200.8)	MP84989	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6158 + 88.50000ml of W3112 + 10.00000ml of MP84988 = Final Quantity: 100.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3959	ICV(6020,200.8)	MP84990	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 0.05000ml of M5983 + 0.05000ml of M6019 + 0.05000ml of M6020 + 0.05000ml of M6058 + 0.45000ml of M5545 + 0.45000ml of M6156 + 2.00000ml of M6150 + 96.90000ml of MP84981 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1142	ICSA ICPMS	MP84993	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 10.00000ml of M5873 + 90.00000ml of MP84981 = Final Quantity: 100.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1143	ICSAB ICPMS	MP84996	03/25/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 0.00500ml of M5983 + 0.00500ml of M6019 + 0.00500ml of M6020 + 0.00500ml of M6058 + 10.00000ml of M5873 + 10.00000ml of M5874 + 79.98000ml of MP84981 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3962	MG 10PPM FOR TUNE	MP84997	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 0.01000ml of M6127 + 9.99000ml of MP84981 = Final Quantity: 100.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3894	TUNE 200PPB	MP84998	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 2.00000ml of M6055 + 2.00000ml of MP84997 + 96.00000ml of MP84981 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3903	ISS 3PPM	MP84999	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 5.00000ml of M6158 + 75.00000ml of M5739 + 170.00000ml of MP84981 = Final Quantity: 250.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
902	ICP AES CAL BLK (SO/ICB/CCB)	MP85016	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 125.00000ml of M6151 + 2350.00000ml of W3112 + 25.00000ml of M5789 = Final Quantity: 2500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
907	ICP AES STD S (S5)	MP85017	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 5.00000ml of M5395 + 5.00000ml of M5466 + 5.00000ml of M5472 + 5.00000ml of M5816 + 5.00000ml of M5820 + 5.00000ml of M5875 + 5.00000ml of M5970 + 5.00000ml of M6076 + 5.00000ml of M6160 + 455.00000ml of MP85016 = Final Quantity: 500.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
910	ICP AES STD S4	MP85018	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 50.00000ml of MP85016 + 50.00000ml of MP85017 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
909	ICP AES STD S3	MP85019	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 25.00000ml of MP85017 + 75.00000ml of MP85016 = Final Quantity: 100.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3913	ICP AES STD S2	MP85020	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 16.00000ml of MP85017 + 184.00000ml of MP85016 = Final Quantity: 200.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2950	ICP AES S1/CRI STOCK STD	MP85021	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 0.03000ml of M5798 + 0.03000ml of M6028 + 0.04000ml of M6137 + 0.05000ml of M5496 + 0.05000ml of M5658 + 0.05000ml of M5811 + 0.05000ml of M6030 + 0.06000ml of M5747 + 0.10000ml of M4883 + 0.10000ml of M5472 + 0.10000ml of M5521 + 0.10000ml of M5801 + 0.10000ml of M5820 + 0.10000ml of M5970 + 0.10000ml of M6128 + 0.15000ml of M5800 + 0.20000ml of M4891 + 0.20000ml of M5748 + 0.20000ml of M5799 + 0.20000ml of M6021 + 0.20000ml of M6023 + 0.25000ml of M5466 + 0.25000ml of M6160 + 0.50000ml of M5387 + 0.50000ml of M5814 + 1.00000ml of M5288 + 1.00000ml of M5497 + 1.00000ml of M5516 + 1.00000ml of M5768 + 1.00000ml of M5978 + 1.00000ml of M6156 + 2.00000ml of M5816 + 77.68000ml of MP85016 = Final Quantity: 100.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2951	ICP AES S1/CRI WORK STD	MP85022	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 2.00000ml of MP85021 + 98.00000ml of MP85016 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
912	ICP AES ICV SOLN	MP85023	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 0.02500ml of M5020 + 0.02500ml of M5429 + 0.02500ml of M5817 + 0.10000ml of M5466 + 0.25000ml of M5472 + 0.25000ml of M6058 + 10.00000ml of M6150 + 89.77500ml of MP85016 = Final Quantity: 100.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
904	ICP AES ICSA SOLN	MP85024	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 25.00000ml of M6152 + 225.00000ml of MP85016 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3494	ICP AES ICSAB SOLN-1	MP85025	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 0.01000ml of M5020 + 0.01000ml of M5817 + 0.10000ml of M5472 + 0.10000ml of M5970 + 0.10000ml of M6076 + 10.00000ml of M6152 + 10.00000ml of M6155 + 79.50000ml of MP85016 = Final Quantity: 100.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
911	ICP AES CCV SOLN	MP85026	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 50.00000ml of MP85016 + 50.00000ml of MP85017 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
919	ICP AES INTERNAL STD	MP85030	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 1.00000ml of M5959 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M5789 = Final Quantity: 2000.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
513	RINSE SOLN	MP85031	03/26/2025	04/26/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 200.00000ml of M5789 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
170	1:1HCL	MP85156	04/07/2025	08/18/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 04/07/2025

FROM 1250.00000ml of M6151 + 1250.00000ml of W3112 = Final Quantity: 2500.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
871	MERCURY INTERMEDIATE B 250PPB WORKING STD.	MP85175	04/10/2025	04/11/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 04/15/2025

FROM 1.00000ml of M6158 + 2.50000ml of M5062 + 96.50000ml of W3112 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1340	Hg 0.00 PPB STD	MP85176	04/10/2025	04/11/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 04/15/2025

FROM 2.50000ml of M6158 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1341	Hg 0.2 PPB STD	MP85177	04/10/2025	04/11/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 04/15/2025

FROM 2.50000ml of M6158 + 247.30000ml of W3112 + 0.20000ml of MP85175 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1342	Hg 2.5 PPB STD	MP85178	04/10/2025	04/11/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 04/15/2025

FROM 2.50000ml of M6158 + 245.00000ml of W3112 + 2.50000ml of MP85175 = Final Quantity: 250.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1343	Hg 5.0 PPB STD	MP85179	04/10/2025	04/11/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 04/15/2025

FROM 2.50000ml of M6158 + 242.50000ml of W3112 + 5.00000ml of MP85175 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1344	Hg 7.5 PPB STD	MP85180	04/10/2025	04/11/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 04/15/2025

FROM 2.50000ml of M6158 + 240.00000ml of W3112 + 7.50000ml of MP85175 = Final Quantity: 250.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1345	Hg 10.0 PPB STD	MP85181	04/10/2025	04/11/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 04/15/2025

FROM 2.50000ml of M6158 + 237.50000ml of W3112 + 10.00000ml of MP85175 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1346	Hg ICV SOLUTION	MP85182	04/10/2025	04/11/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 04/15/2025

FROM 2.50000ml of M5532 + 2.50000ml of M6158 + 245.00000ml of W3112 = Final Quantity: 250.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1351	ICB (Hg 0.00 PPB SOLUTION)	MP85183	04/10/2025	04/11/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 04/15/2025

FROM 2.50000ml of M6158 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1358	CCV (Hg 5.0 PPB SOLUTION)	MP85184	04/10/2025	04/11/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 04/15/2025

FROM 485.00000ml of W3112 + 5.00000ml of M6158 + 10.00000ml of MP85175 = Final Quantity: 500.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1352	CCB (Hg 0.00 PPB SOLUTION)	MP85185	04/10/2025	04/11/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 04/15/2025

FROM 495.00000ml of W3112 + 5.00000ml of M6158 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1349	CRA/CRI (Hg 0.2 PPB SOLUTION)	MP85186	04/10/2025	04/11/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 04/15/2025

FROM 2.50000ml of M6158 + 247.30000ml of W3112 + 0.20000ml of MP85175 = Final Quantity: 250.000 ml

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

Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1350	CHK STD (Hg 7.0 PPB SOLUTION)	MP85187	04/10/2025	04/11/2025	Mohan Bera	None	METALS_PIPETTE_5 (HG A)	Sarabjit Jaswal 04/15/2025

FROM 2.50000ml of M6158 + 240.50000ml of W3112 + 7.00000ml of MP85175 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
68	STANNOUS CHLORIDE SOLUTION	MP85189	04/10/2025	04/11/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 04/15/2025

FROM 450.00000ml of W3112 + 50.00000gram of M5882 + 50.00000ml of M6151 = Final Quantity: 500.000 ml

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-2196-01 / Hydroxylamine Hydrochloride, Crystal (cs/4x500g)	0000215387	06/25/2025	07/01/2019 / RICHARD	06/07/2019 / RICHARD	M4371

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3238-05 / Potassium Persulfate (2.5kg)	0000234156	08/06/2025	07/23/2019 /	07/25/2019 / manojkumar	M4465

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57034 / Se, 1000 PPM, 125 ml	070221	09/07/2025	08/06/2021 / jaswal	08/05/2021 / jaswal	M4883

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58030 / Zinc, Zn, 500 ml, 1000 PPM	031921	05/19/2025	08/25/2021 / bin	08/05/2021 / jaswal	M4891

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3227-05 / Potassium Permanganate (2.5kg)	210800	03/31/2026	11/30/2022 / mohan	07/28/2021 / mohan	M4916

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57115 / P, 10000 PPM, 125 ml	032921	05/17/2025	12/13/2021 / bin	12/09/2021 / bin	M5020

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	MSHG-10PPM / MERCURY HCl 125mL 10ug/mL	S2-HG709270	09/22/2026	05/28/2022 / mohan	01/27/2022 / mohan	M5062

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58119 / K, 10000 PPM, 500 ml	071122	07/11/2025	09/01/2022 / jaswal	07/21/2022 / jaswal	M5288

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	6020CAL-1 / Calibration Standard Method 6020	S2-MEB711244	10/20/2026	03/07/2025 / JANVI	04/01/2022 / jaswal	M5305

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57056 / Ba, 1000 PPM, 125 ml	072122	07/21/2025	11/01/2022 / jaswal	09/18/2022 / jaswal	M5387

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-3 / CLP CAL SOLUTION #3, 125mL	T2-MEB714159	01/13/2027	01/30/2024 / bin	09/19/2022 / bin	M5395

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57103 / Li, 10000 PPM, 125 ml	070622	07/06/2025	01/30/2023 / bin	01/26/2023 / bin	M5429

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57058 / Cerium, 1000PPM, 100ML	061322	06/13/2025	03/06/2023 / bin	03/01/2023 / bin	M5466

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57038 / Sr, 1000 PPM, 125 ml	082922	08/29/2025	01/14/2025 / Jaswal	03/16/2023 / jaswal	M5472

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Al, 10000 PPM, 500 ml	011623	01/16/2026	08/15/2023 / jaswal	03/17/2023 / bin	M5496

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58120 / Ca, 10000 PPM, 500 ml	031523	03/15/2026	03/18/2023 / bin	03/17/2023 / bin	M5497

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58111 / Na, 10000 PPM, 500 ml	022123	11/06/2025	11/06/2024 / kareem	03/17/2023 / bin	M5516

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57119 / Potassium (K) 10,000PPM	120822	12/08/2025	01/08/2024 / bin	03/17/2023 / bin	M5519

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57119 / Potassium (K) 10,000PPM	120822	12/08/2025	08/01/2024 / Jaswal	03/17/2023 / bin	M5520

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	102622	10/26/2025	11/21/2022 / bin	11/20/2022 / bin	M5521

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-5 / ICV (HG) STOCK SOLN	ICV5-0415	04/30/2025	01/02/2025 /	03/30/2023 / mohan	M5532

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57022 / Titanium (Ti) 1000PPM	050223	05/02/2026	05/08/2023 / jaswal	05/08/2023 / jaswal	M5545

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58024 / Chromium, Cr, 500 ml, 1000 PPM	060523	06/05/2026	08/28/2023 / jaswal	08/25/2023 / jaswal	M5658

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	6020ISS / 6020ISS, 10 ug/ml, Bi, Ho, In, 6Li, Rh, Sc, TB, Y	T2-MEB709511	09/03/2026	08/07/2024 / jaswal	04/11/2022 / jaswal	M5739

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ Lead (Pb) 1000PPM	100923	10/09/2026	05/20/2024 / Jaswal	12/20/2023 / jaswal	M5747

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ Nickel (Ni) 1000PPM	091223	09/12/2026	01/02/2024 / bin	12/20/2023 / jaswal	M5748

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	071723	07/17/2026	10/01/2024 / Jaswal	08/25/2023 / jaswal	M5751

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58112 / Mg, 10000 PPM, 500 ml	091823	09/18/2026	01/08/2024 / bin	01/03/2024 / bin	M5768

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	23G1262003	07/30/2025	02/08/2024 / Al-Terek	06/26/2023 / Al-Terek	M5789

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57004 / Be, 1000 PPM, 125 ml	102523	10/25/2026	02/09/2024 / bin	02/09/2024 / bin	M5798

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57050 / Sn, 1000 PPM, 125 ml	071123	07/11/2026	02/09/2024 / bin	02/09/2024 / bin	M5799

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57027 / CO, 1000 PPM, 125 ml	091923	09/19/2026	05/31/2024 / bin	02/09/2024 / bin	M5800

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57033 / As, 1000 PPM, 125 ml	111323	11/13/2026	02/09/2024 / bin	02/09/2024 / bin	M5801

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58126 / Fe, 10000 PPM, 500 ml	051523	05/15/2026	02/06/2025 / kareem	01/03/2024 / jaswal	M5811

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57005 / B, 1000 PPM, 125 ml	071123	07/11/2026	03/26/2024 / Sohil	01/03/2024 / jaswal	M5814

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57115 / P, 10000 PPM, 125 ml	041723	04/17/2026	05/21/2024 / Jaswal	02/09/2024 / jaswal	M5815

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57016 / S, 1000 PPM, 125 ml	122923	12/29/2026	05/20/2024 / Jaswal	02/09/2024 / jaswal	M5816

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57116 / S, 10000 PPM, 125 ml	071123	07/11/2026	03/01/2024 / jaswal	02/09/2024 / jaswal	M5817

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 #
EPA	PART A / ICSA (ICPMS) STOCK SOLN	CP-MS ICSA-0803	04/30/2025	04/17/2024 / jaswal	07/14/2022 / jaswal	M5873

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART B / ICSB (ICPMS) STOCK SOLUTION	CP-MS ICSB-0803	04/30/2025	04/17/2024 / jaswal	07/14/2022 / jaswal	M5874

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-1 / CLP CAL SOLUTION #1, 125mL	T2-MEB714417	01/27/2027	04/19/2024 / jaswal	02/22/2024 / jaswal	M5875

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3980-01 / Stannous Chloride (cs/4x500g)	232820	08/31/2028	04/30/2024 / mohan	04/25/2024 / mohan	M5882

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3624-05 / Sodium Chloride, Crystal (cs/4x2.5kg)	0000281938	07/06/2026	04/30/2024 / mohan	04/25/2024 / mohan	M5884

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	06/17/2027	06/18/2024 / Jaswal	02/22/2024 / Jaswal	M5942

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGY10-1 / YTTRIUM 125mL 10,000ug/mL	V2-Y740548	02/20/2029	07/01/2024 / Jaswal	06/14/2024 / Jaswal	M5959

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57028 / Ni, 1000 PPM, 125 ml	041124	04/11/2027	07/02/2024 / Jaswal	06/11/2024 / Jaswal	M5961

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

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57003 / Li, 1000 PPM, 125 ml	061224	06/21/2027	07/01/2024 / Jaswal	07/01/2024 / Jaswal	M5970

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGMO1-1 / MOLYBDENUM 125mL 1000ug/mL	T2-MO720876	07/17/2027	01/16/2025 / JANVI	02/22/2024 / Jaswal	M5977

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	06/17/2027	08/07/2024 / jaswal	02/22/2024 / Jaswal	M5978

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57092 / U, 1000 PPM, 125 ml	060724	06/07/2027	07/29/2024 / Jaswal	06/11/2024 / Jaswal	M5981

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57040 / Zr, 1000 PPM, 125 ml	071423	07/14/2026	07/29/2024 / Jaswal	06/11/2024 / Jaswal	M5983

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

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	WW-LFS-1 / Laboratory Fortified Stock Solution 1, 125 ml	T2-MEB723367	08/26/2025	02/26/2025 / Eman	05/14/2024 / Jaswal	M6003

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	WW-LFS-2 / Laboratory Fortified Stock Solution 2, 125 ml	U2-MEB731108	09/17/2025	03/17/2025 / Eman	05/14/2024 / Jaswal	M6012

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 #
Inorganic Ventures	CGU1-1 / Uranium 1000 ug/ml	U2-U735194	04/03/2028	01/15/2025 / Jaswal	08/05/2024 / Jaswal	M6020

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

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57082 / Pb, 1000 PPM, 125 ml	061224	11/09/2026	08/05/2024 / Jaswal	08/05/2024 / Jaswal	M6025

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 #
Seidler Chemical	BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	23D2462010	03/20/2028	08/16/2024 / mohan	08/16/2024 / mohan	M6041

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	IV-STOCK-12 / ICP-MS TUNING SOLUTION, 125mL	U2-MEB734294	06/21/2028	08/21/2024 / Jaswal	08/19/2024 / Jaswal	M6055

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CHEM-QC-4 / CHEM-QC-4, Second Source, 1000 ug/ml, B, Mo, Si, Sn, Ti	V2-MEB746173	01/29/2026	01/29/2025 / JANVI	08/22/2024 / Jaswal	M6058

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	Z9651Q / CHEM-CLP-4/.25L	V2-MEB746762	01/01/2026	01/01/2025 / kareem	09/19/2024 / kareem	M6076

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57040 / Zr, 1000 PPM, 125 ml	071423	07/14/2026	01/15/2025 / Jaswal	09/30/2024 / Jaswal	M6079

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58120 / Calcium, 500 ml, 10000 PPM	082324	08/23/2027	03/06/2025 / JANVI	10/14/2024 / jaswal	M6086

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	06/03/2025	12/03/2024 / Janvi	11/12/2024 / Janvi	M6126

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58112 / Mg, 10000 PPM, 500 ml	112124	11/21/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6127

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58025 / Mn, 1000 PPM, 500 ml	101124	10/11/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6128

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGSI1-1 / SILICON 125mL 1000ug/mL	V2-SI744713	07/10/2029	01/14/2025 / Jaswal	10/03/2024 / Jaswal	M6137

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
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

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57051 / Sb, 1000 PPM, 125 ml	071724	07/17/2027	01/31/2025 / kareem	10/18/2024 / kareem	M6146

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-1 / ICV (ICP/ICPMS) STOCK SOLN	ICV1-1014	07/07/2025	02/07/2025 / JANVI	04/20/2021 / JANVI	M6150

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	22G2862015	08/18/2025	02/18/2025 / Sagar	01/15/2025 / Sagar	M6151

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART A / ICSA (ICP) STOCK SOLN	ICSA-1211	08/24/2025	02/24/2025 / kareem	04/20/2021 / kareem	M6152

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGSR10 / Strontium (SR), 125mL 10,000ppm	V2-SR754329	02/28/2026	02/28/2025 / JANVI	01/07/2025 / JANVI	M6153

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART B / ICSAB (ICP) STOCK SOLN	ICSB-0710	06/20/2025	02/10/2025 / kareem	02/09/2024 / kareem	M6155

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57042 / Mo, 1000 PPM, 125 ml	032123	03/21/2026	11/06/2024 / JANVI	06/12/2024 / JANVI	M6156

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	03/25/2029	03/10/2025 / Eman	02/02/2025 / Sagar	M6158

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

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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	03/24/2026	03/24/2025 / kareem	10/18/2024 / kareem	M6160

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

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

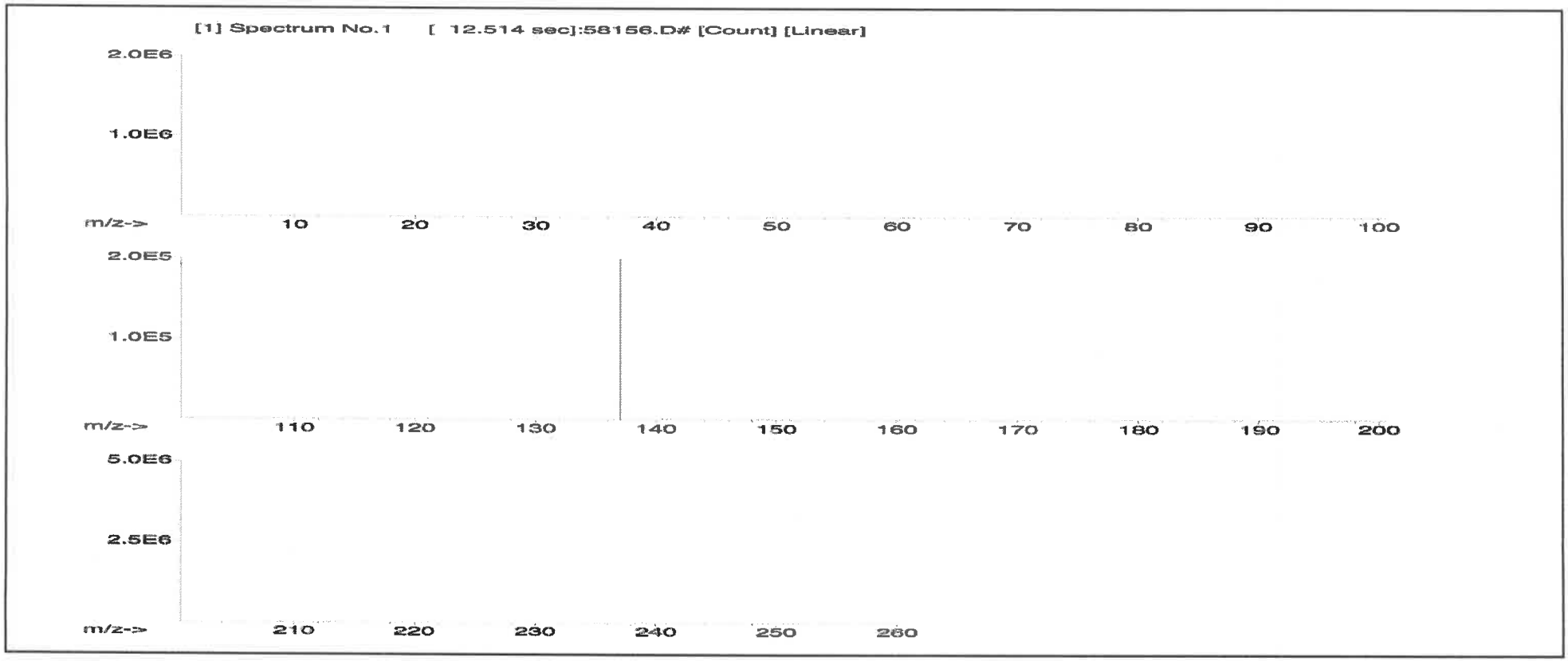
CERTIFIED WEIGHT REPORT:

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.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Revd 10/14/2024 M6085/M6086/M6087

CERTIFIED WEIGHT REPORT:

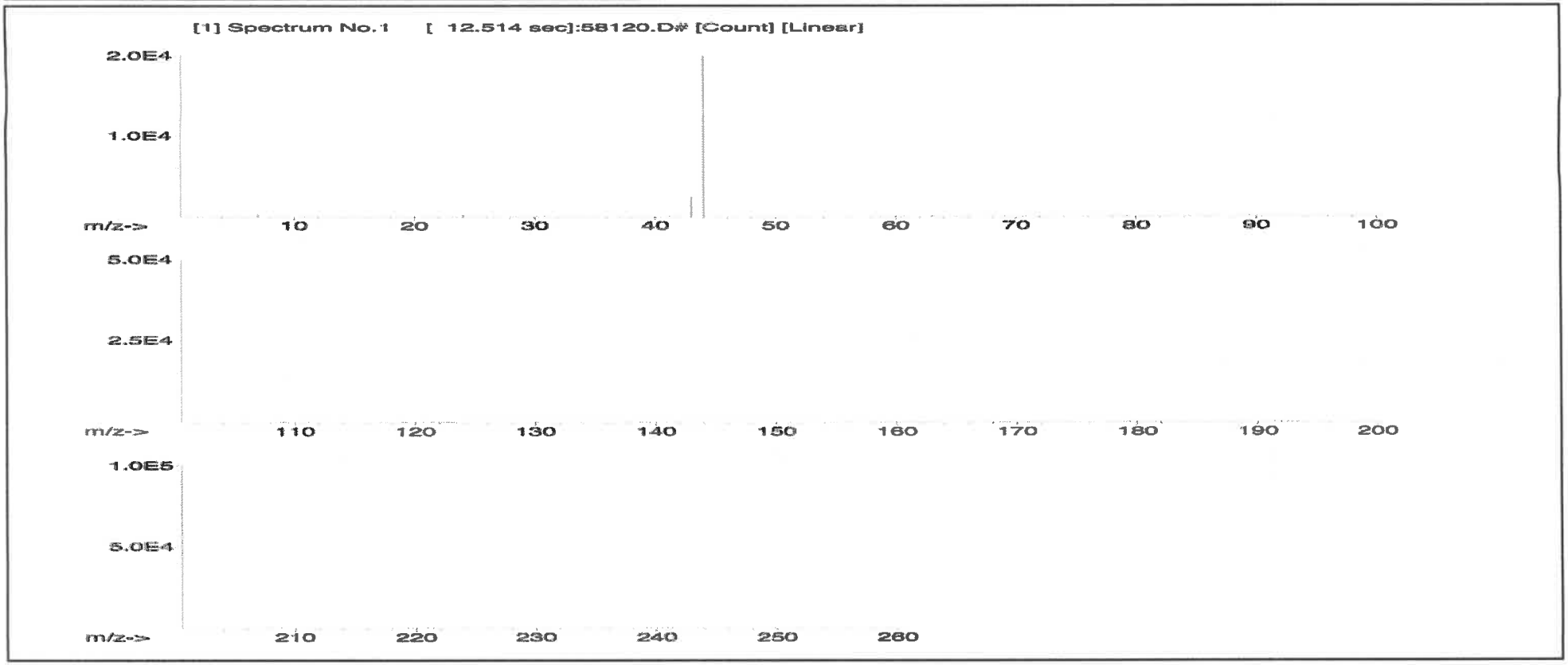
Part Number:	**58120**		**Solvent:**	24002546	Nitric Acid
Lot Number:	**082324**				
Description:	**Calcium (Ca)**		2%	80.0	Nitric Acid
Expiration Date:	082327			(mL)	
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.1	0.15	Flask Uncertainty		

Lot #

Giovanni Esposito

Formulated By:	Giovanni Esposito	082324
Reviewed By:	Pedro L. Rentas	082324

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	100.2656	**10001.2**	**20.0**	471-34-1	5 mg/m3	ori-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.

* 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

R 8/5/24

M6028

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

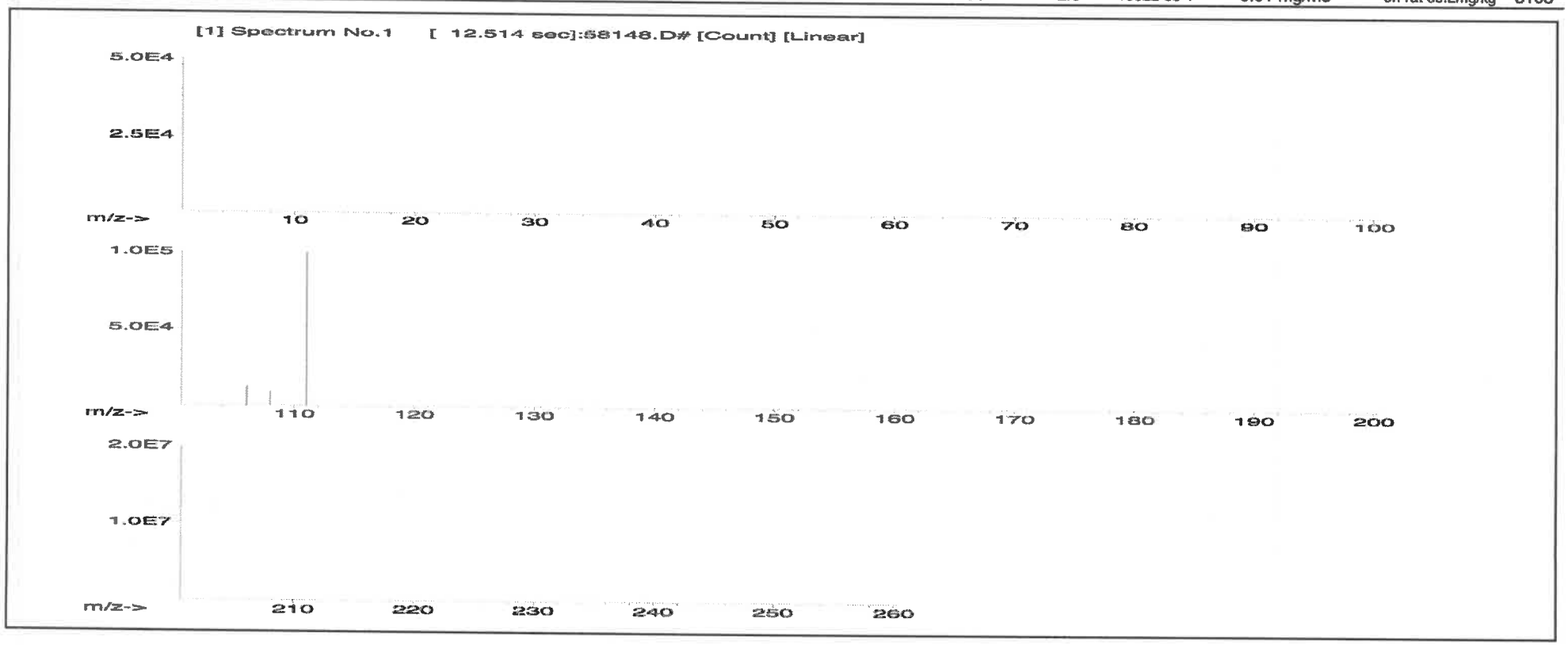
CERTIFIED WEIGHT REPORT:

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).

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

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-1
Lot Number:	T2-MEB714417
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Calcium, Potassium, Magnesium, Sodium, 2 000 µg/mL ea: Aluminum, Barium, 1 000 µg/mL ea: Iron, 500 µg/mL ea: Nickel, Vanadium, Zinc, Cobalt, Manganese, 250 µg/mL ea: Silver, Copper, 200 µg/mL ea: Chromium, 50 µg/mL ea: Beryllium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	**2 000 ± 7 µg/mL**	**Barium, Ba**	**2 000 ± 9 µg/mL**
Beryllium, Be	**50.00 ± 0.26 µg/mL**	**Calcium, Ca**	**5 000 ± 22 µg/mL**
Chromium, Cr	**200.0 ± 1.0 µg/mL**	**Cobalt, Co**	**500.0 ± 2.4 µg/mL**
Copper, Cu	**250.0 ± 1.0 µg/mL**	**Iron, Fe**	**1 000 ± 4 µg/mL**
Magnesium, Mg	**5 000 ± 20 µg/mL**	**Manganese, Mn**	**500.0 ± 2.0 µg/mL**
Nickel, Ni	**500.0 ± 2.2 µg/mL**	**Potassium, K**	**5 000 ± 19 µg/mL**
Silver, Ag	**250.0 ± 1.1 µg/mL**	**Sodium, Na**	**5 000 ± 18 µg/mL**
Vanadium, V	**499.7 ± 2.2 µg/mL**	**Zinc, Zn**	**500.0 ± 2.2 µg/mL**

Density: 1.118 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cr	Calculated		See Sec. 4.2
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 27, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 27, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

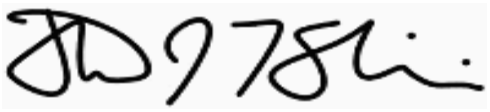
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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

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-3
Lot Number:	T2-MEB714159
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Arsenic, Lead, Selenium, Thallium, 500 µg/mL ea: Cadmium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	**1 000 ± 8 µg/mL**	**Cadmium, Cd**	**500.0 ± 2.1 µg/mL**
Lead, Pb	**1 000 ± 5 µg/mL**	**Selenium, Se**	**1 000 ± 8 µg/mL**
Thallium, Tl	**1 000 ± 7 µg/mL**		

Density: 1.043 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 13, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 13, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

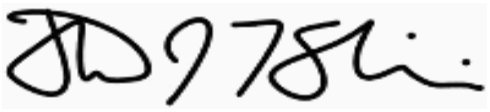
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R : 01/03/24. M5810, M5811

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58126
Lot Number: 051523
Description: Iron (Fe)

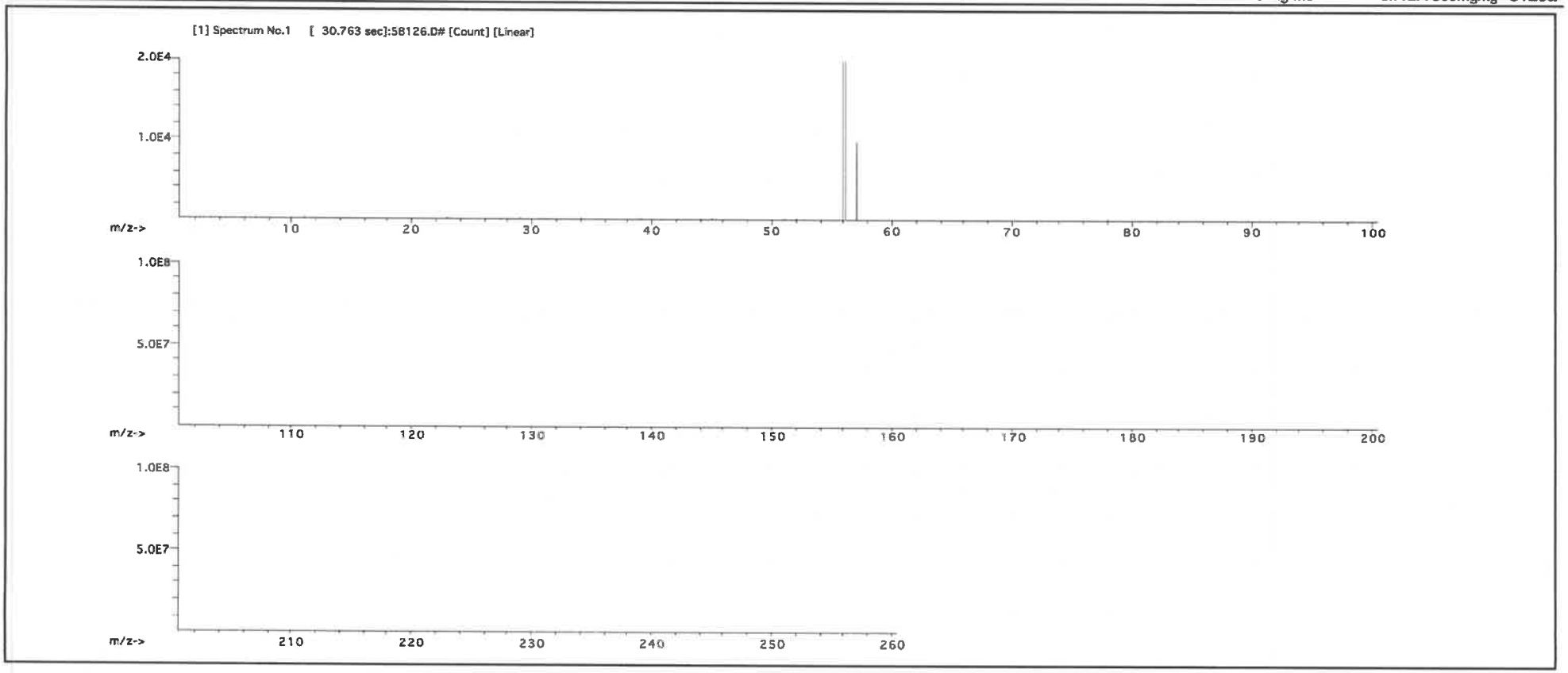
Expiration Date: 051526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 5000.1 ± 0.12 Flask Uncertainty

		Lot #	
Solvent:	21110221	Nitric Acid	
	5.0%	250.0 (mL)	Nitric Acid
	5E-05	Balance Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	051523
Reviewed By:	Pedro L. Rentas	051523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Iron (Fe)	IN346	2302010-500	10000	99.995	0.10	100.0	50.0034	50.0111	**10001.5**	**20.0**	7439-89-6	5 mg/m3	orl-rat 7500mg/kg	3126a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.10	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.10	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.05	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.10	Ge	<0.10	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.10
B	<0.02	Cu	<0.10	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 8/15/24 M6025

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57182
Lot Number: 110923
Description: Lead (Pb)

Expiration Date: 110926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

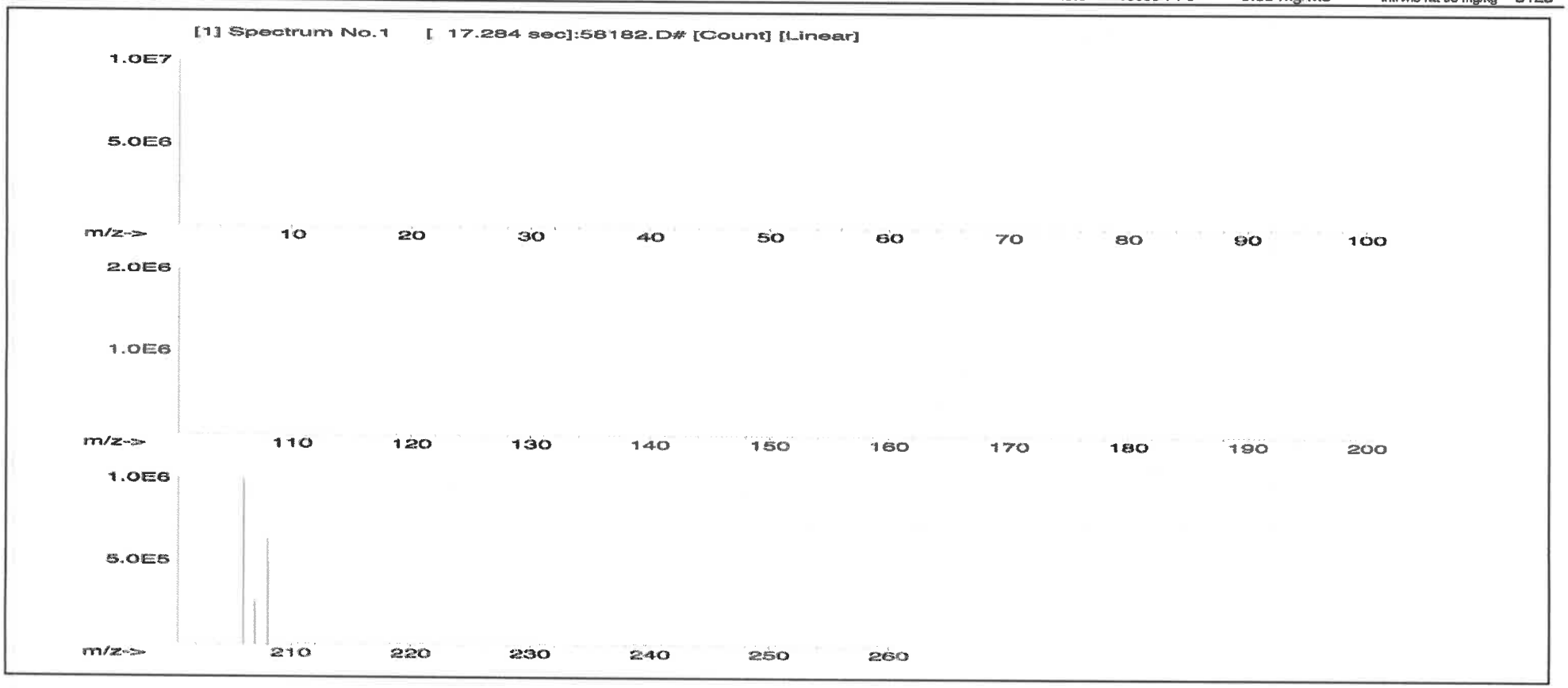
Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

		Lot #	
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance 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.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES™

Refine your results. Redefine your industry.

Certificate of Analysis

RD:05/14/2024

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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:	Multi Analyte Custom Grade Solution
Catalog Number:	WW-LFS-1
Lot Number:	T2-MEB723367
Matrix:	5% (v/v) HNO3

Value / Analyte(s):	1 000 µg/mL ea: Potassium,	
	600 µg/mL ea: Phosphorus,	
	300 µg/mL ea: Sodium,	Iron,
	200 µg/mL ea: Magnesium, Cerium, Thallium,	Aluminum, Selenium,
	100 µg/mL ea: Lead,	Calcium,
	80 µg/mL ea: Arsenic,	
	70 µg/mL ea: Mercury,	
	50 µg/mL ea: Nickel,	
	40 µg/mL ea: Chromium,	
	30 µg/mL ea: Copper, Vanadium,	Boron,
	20 µg/mL ea: Zinc, Barium, Cadmium, Manganese,	Strontium, Beryllium, Cobalt, Lithium,
	7.5 µg/mL ea: Silver	

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	200.0 ± 0.7 µg/mL	Arsenic, As	80.0 ± 0.7 µg/mL
Barium, Ba	20.00 ± 0.09 µg/mL	Beryllium, Be	20.00 ± 0.13 µg/mL
Boron, B	30.00 ± 0.18 µg/mL	Cadmium, Cd	20.00 ± 0.09 µg/mL
Calcium, Ca	100.0 ± 0.4 µg/mL	Cerium, Ce	200.0 ± 0.8 µg/mL
Chromium, Cr	40.00 ± 0.30 µg/mL	Cobalt, Co	20.00 ± 0.10 µg/mL
Copper, Cu	30.00 ± 0.13 µg/mL	Iron, Fe	300.0 ± 1.3 µg/mL
Lead, Pb	100.0 ± 0.4 µg/mL	Lithium, Li	20.00 ± 0.08 µg/mL
Magnesium, Mg	200.0 ± 0.8 µg/mL	Manganese, Mn	20.00 ± 0.08 µg/mL
Mercury, Hg	70.0 ± 0.3 µg/mL	Nickel, Ni	50.00 ± 0.22 µg/mL
Phosphorus, P	600.0 ± 2.7 µg/mL	Potassium, K	1 000 ± 4 µg/mL
Selenium, Se	200.0 ± 1.3 µg/mL	Silver, Ag	7.50 ± 0.03 µg/mL
Sodium, Na	300.0 ± 1.4 µg/mL	Strontium, Sr	20.01 ± 0.08 µg/mL
Thallium, Tl	200.0 ± 1.4 µg/mL	Vanadium, V	30.00 ± 0.13 µg/mL
Zinc, Zn	20.00 ± 0.09 µg/mL		

Density: 1.034 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Ag	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	190605
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Ce	ICP Assay	3110	090504
Ce	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	Traceable to 3152A	S2-NA700842
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Tl	ICP Assay	3158	151215
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 30, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 30, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



INORGANIC VENTURES

Refine your results. Redefine your industry.

Certificate of Analysis

RD:05/14/2024

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01 ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	WW-LFS-2
Lot Number:	U2-MEB731108
Matrix:	5% (v/v) HNO3 tr. HF
Value / Analyte(s):	200 µg/mL ea: Silica, 80 µg/mL ea: Antimony, 70 µg/mL ea: Tin, 40 µg/mL ea: Molybdenum, 20 µg/mL ea: Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	80.1 ± 0.6 µg/mL	Molybdenum, Mo	40.03 ± 0.18 µg/mL
Silica, SiO2	200.2 ± 1.3 µg/mL	Tin, Sn	70.0 ± 0.4 µg/mL
Titanium, Ti	20.01 ± 0.13 µg/mL		

Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Mo	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
SiO2	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925
Ti	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- 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 17, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- March 17, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



M4371

Hydroxylamine Hydrochloride, Crystal
BAKER ANALYZED® A.C.S. Reagent
Suitable for Mercury Determination
(hydroxylammonium chloride)

Rec – 06.07.19

J.T.Baker® | avantor™

Material No.: 2196-01
Batch No.: 0000215387
Manufactured Date: 2018/06/27
Retest Date: 2025/06/25
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Assay ($NH_2OH \cdot HCl$) (by $KMnO_4$ titrn)	>= 96.0 %	99.1
Clarity of Alcohol Solution	Passes Test	PT
Residue after Ignition	<= 0.050 %	0.017
Titrable Free Acid (meq/g)	<= 0.25	0.19
Ammonium (NH_4)	Passes Test	PT
Sulfur Compounds (as SO_4)	<= 0.005 %	< 0.003
Trace Impurities - ACS - Heavy Metals (as Pb)	<= 5 ppm	4
Trace Impurities - Iron (Fe)	<= 5 ppm	< 3
Trace Impurities - Mercury (Hg)	<= 0.050 ppm	< 0.005

For Laboratory, Research or Manufacturing Use

Country of Origin: CN
Packaging Site: Paris Mfg Ctr & DC

ISO
Phillipsburg, NJ 9001:2015, FSSC22000
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Gliwice, Poland 9001:2015, 13485:2012
Selangor, Malaysia 9001:2008
Dehradun, India, 9001:2008, 14001:2004, 13485:2003
Mumbai, India, 9001:2015, 17025:2005
Panoli, India 9001:2015

James Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57034**	20370011	Nitric Acid	
Lot Number:	**070221**			
Description:	**Selenium (Se)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	070224			
Recommended Storage:	Ambient (20 ºC)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

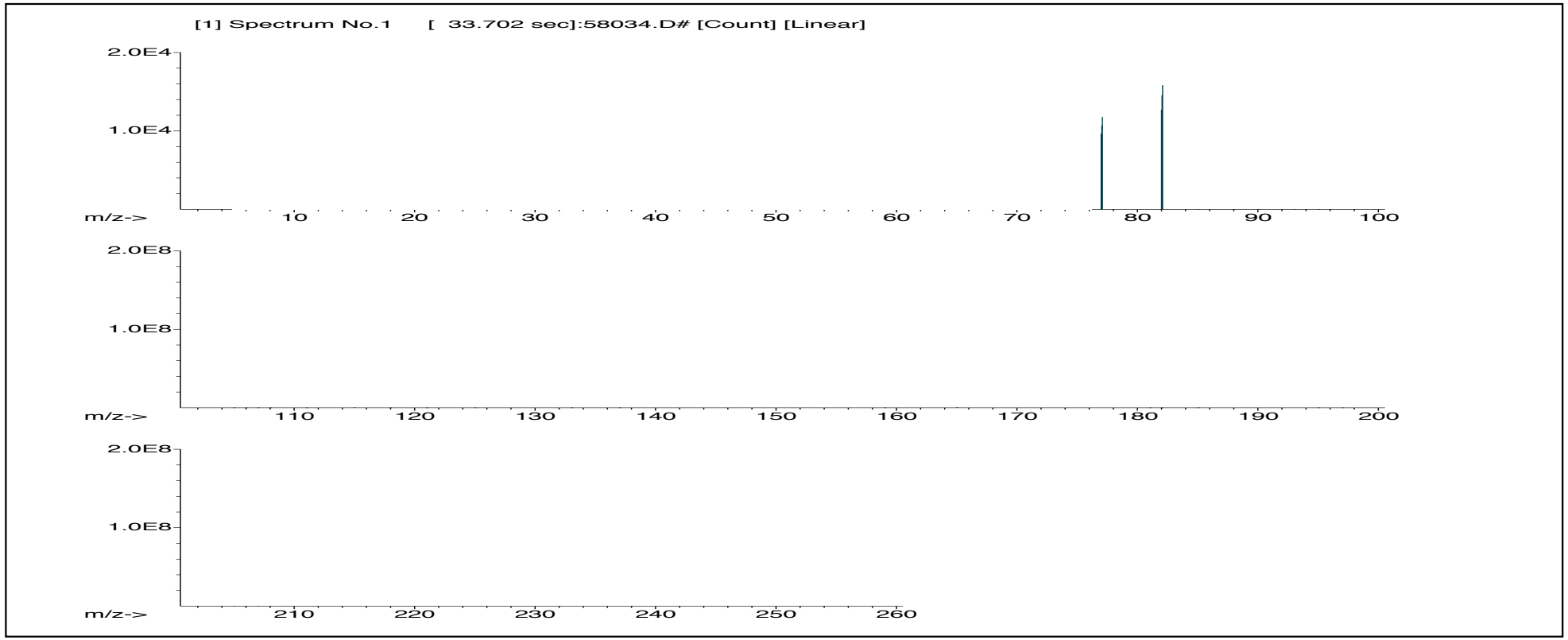
Giovanni Esposito

Formulated By:	Giovanni Esposito	070221

Pedro Rentas

Reviewed By:	Pedro L. Rentas	070221

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	**Final Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Selenium(IV) oxide (Se)	58134	021621	0.1000	200.0	0.084	1000	10000.2	**1000.0**	**2.2**	7446-08-4	0.2 mg/m3	orl-rat 68 mg/kg	3149



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	T	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

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

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58030**	20370011	Nitric Acid	
Lot Number:	**031921**			
Description:	**Zinc (Zn)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	031924			
Recommended Storage:	Ambient (20 ºC)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

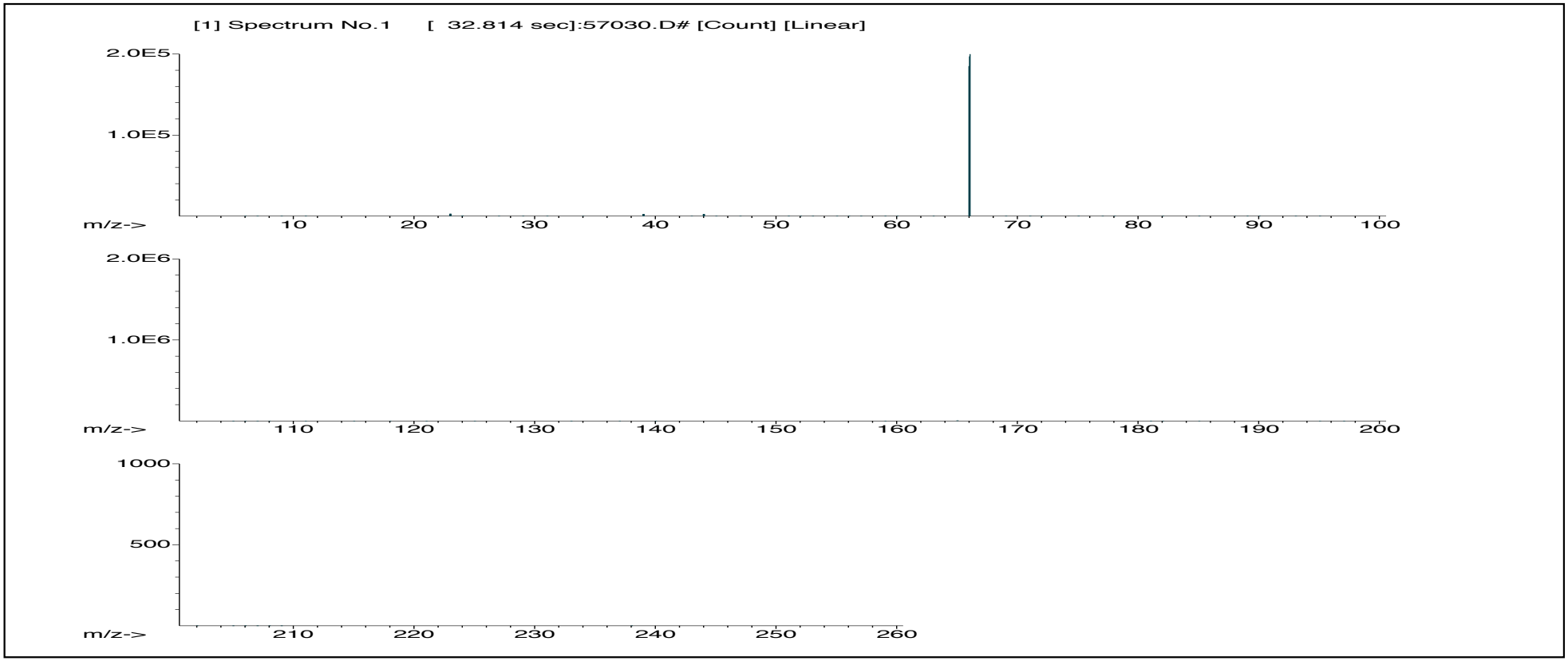
Giovanni Esposito

Formulated By:	Giovanni Esposito	031921

Pedro Rentas

Reviewed By:	Pedro L. Rentas	031921

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	**Final Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Zinc nitrate hexahydrate (Zn)	58130	082020	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	10196-18-6	1 mg/m3	orl-rat 1190mg/kg	3168



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	T
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

ThermoFisher SCIENTIFIC

M4913-16

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.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

BA

M5020

R: 12/09/21

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57115
Lot Number: 032921
Description: Phosphorous (P)

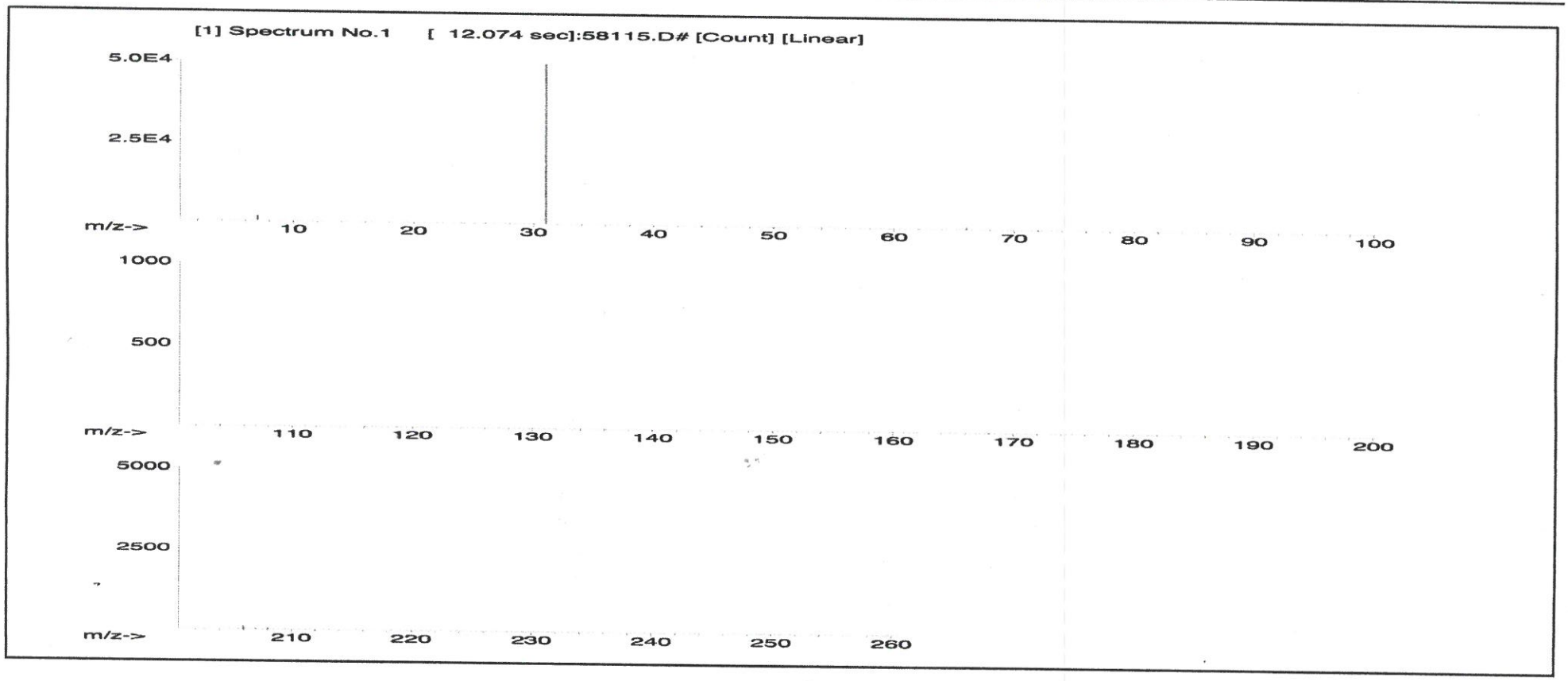
Expiration Date: 032924
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41

	Lot #		
Solvent:	20370011	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	032921
Reviewed By:	Pedro L. Rentas	032921

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV052018A1	10000	99.999	0.10	27.3	109.9063	109.9093	**10000.3**	**20.0**	7722-76-1	5 mg/m3	NA	3186



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* 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

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

M5288 R: 07/21/2022

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

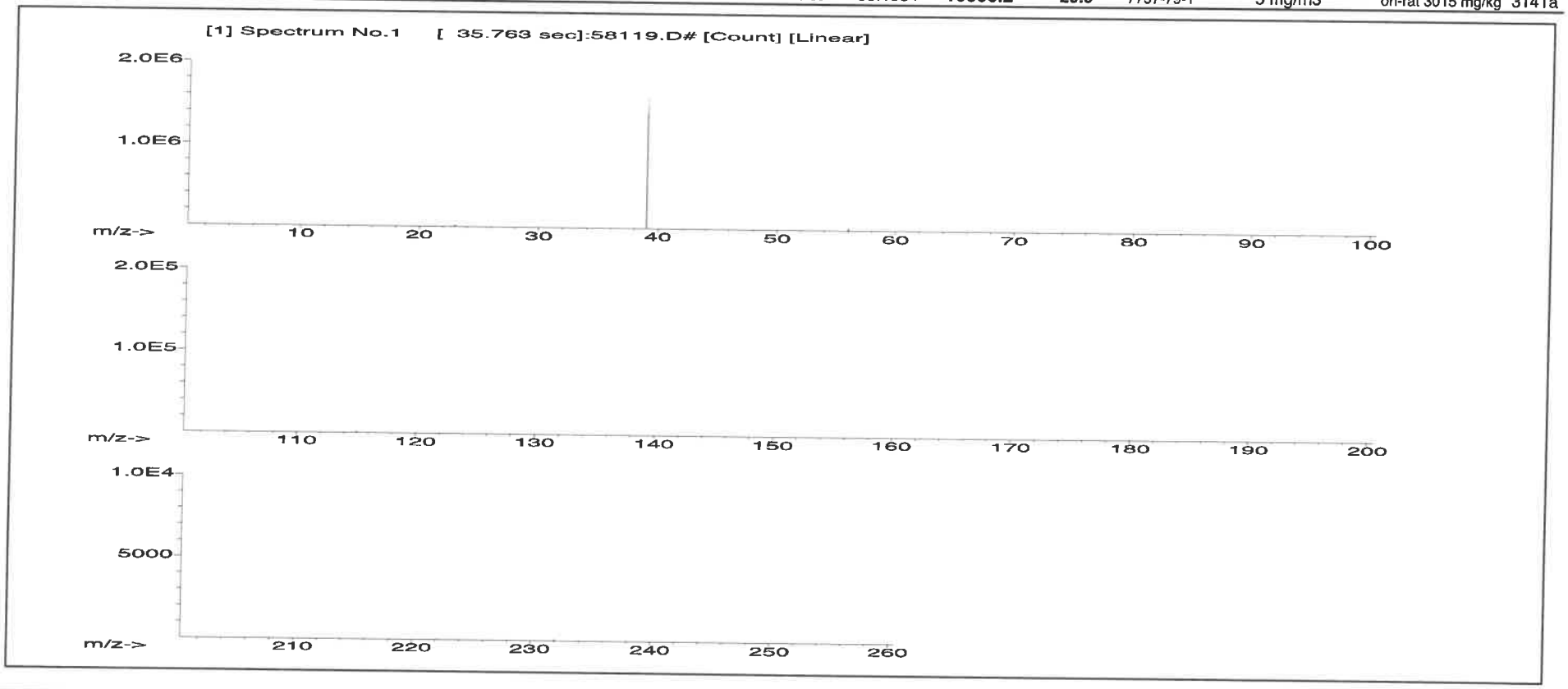
Part Number: 58119
Lot Number: 071122
Description: Potassium (K)

Expiration Date: 071125
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	071122
Reviewed By:	Pedro L. Rentas	071122

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD022021A1	10000	99.999	0.10	37.6	53.1925	53.1934	**10000.2**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3015 mg/kg	3141a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	T	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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

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:	6020CAL-1
Lot Number:	S2-MEB711244
Matrix:	5% (v/v) HNO3 tr. HF
Value / Analyte(s):	20 µg/mL ea:

Silver,	Aluminum,
Arsenic,	Barium,
Beryllium,	Calcium,
Cadmium,	Cobalt,
Chromium,	Copper,
Iron,	Potassium,
Magnesium,	Manganese,
Sodium,	Nickel,
Lead,	Antimony,
Selenium,	Thallium,
Vanadium,	Zinc

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	**20.01 ± 0.08 µg/mL**	**Antimony, Sb**	**20.01 ± 0.12 µg/mL**
Arsenic, As	**20.01 ± 0.18 µg/mL**	**Barium, Ba**	**20.01 ± 0.11 µg/mL**
Beryllium, Be	**20.01 ± 0.14 µg/mL**	**Cadmium, Cd**	**20.01 ± 0.11 µg/mL**
Calcium, Ca	**20.01 ± 0.10 µg/mL**	**Chromium, Cr**	**20.01 ± 0.16 µg/mL**
Cobalt, Co	**20.01 ± 0.11 µg/mL**	**Copper, Cu**	**20.01 ± 0.10 µg/mL**
Iron, Fe	**20.01 ± 0.09 µg/mL**	**Lead, Pb**	**20.01 ± 0.11 µg/mL**
Magnesium, Mg	**19.99 ± 0.10 µg/mL**	**Manganese, Mn**	**20.01 ± 0.10 µg/mL**
Nickel, Ni	**20.01 ± 0.11 µg/mL**	**Potassium, K**	**20.01 ± 0.10 µg/mL**
Selenium, Se	**20.02 ± 0.14 µg/mL**	**Silver, Ag**	**20.02 ± 0.09 µg/mL**
Sodium, Na	**20.01 ± 0.10 µg/mL**	**Thallium, Tl**	**20.01 ± 0.13 µg/mL**
Vanadium, V	**20.01 ± 0.11 µg/mL**	**Zinc, Zn**	**20.01 ± 0.11 µg/mL**

Density: 1.026 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
As	ICP Assay	3103a	100818
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
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Fe	Calculated		See Sec. 4.2
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
Tl	Calculated		See Sec. 4.2
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

- 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**

HF Note: This standard should not be prepared or stored in glass.

Low Silver Note: This solution contains “LOW” levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

October 20, 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

- **October 20, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

R: 09/08/22 (BH)

Certified Reference Material CRM

M5387 . M5389 . M5390 . M5391 . M5392

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

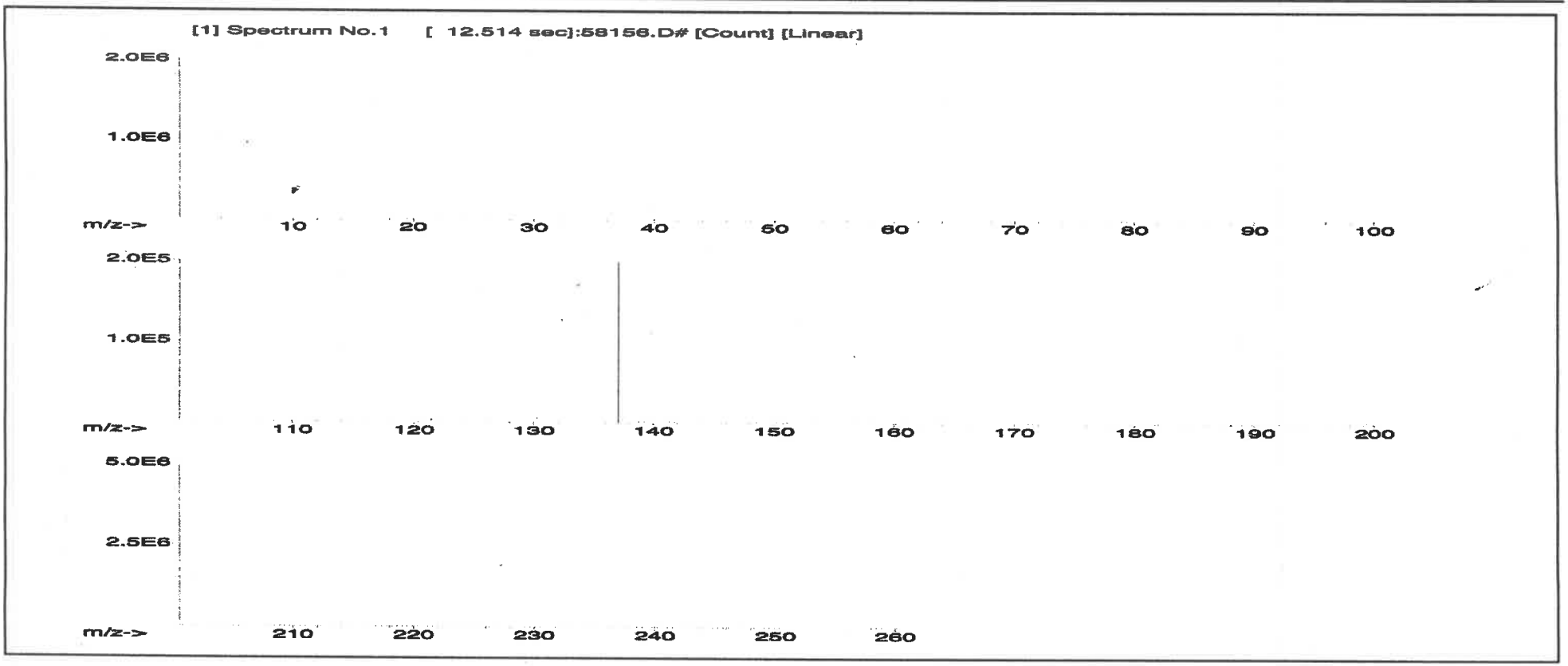
CERTIFIED WEIGHT REPORT:

		Lot #		
Part Number:	**57056**	**Solvent:**	20510011	Nitric Acid
Lot Number:	**072122**			
Description:	**Barium (Ba)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	072125			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	072122
Reviewed By:	Pedro L. Rentas	072122

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Barium nitrate (Ba)	IN023	BAD022019A1	1000	99.999	0.10	52.3	3.82417	3.82426	**1000.0**	**2.0**	10022-31-8	0.5 mg/m3	orl-rat 355 mg/kg	3104a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5429 R1 01/26/23 BH

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57103
Lot Number: 070622
Description: Lithium (Li)

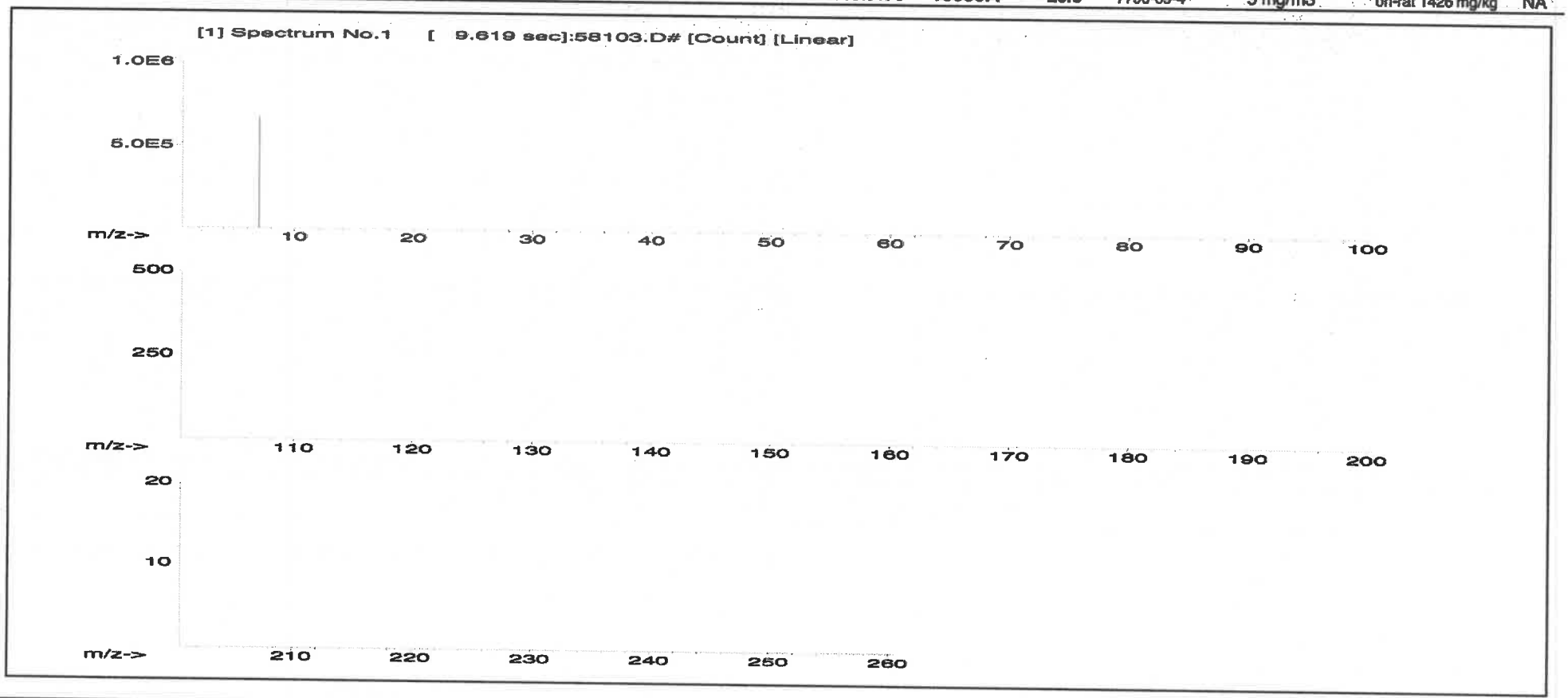
Expiration Date: 070625
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	070622
Reviewed By:	Pedro L. Rentas	070622

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lithium nitrate (Li)	IN019	LIZ042018A1	10000	99.999	0.10	10.0	100.0134	100.0173	**10000.4**	**20.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* 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

IN 5466
R: 03/01/23 BH

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

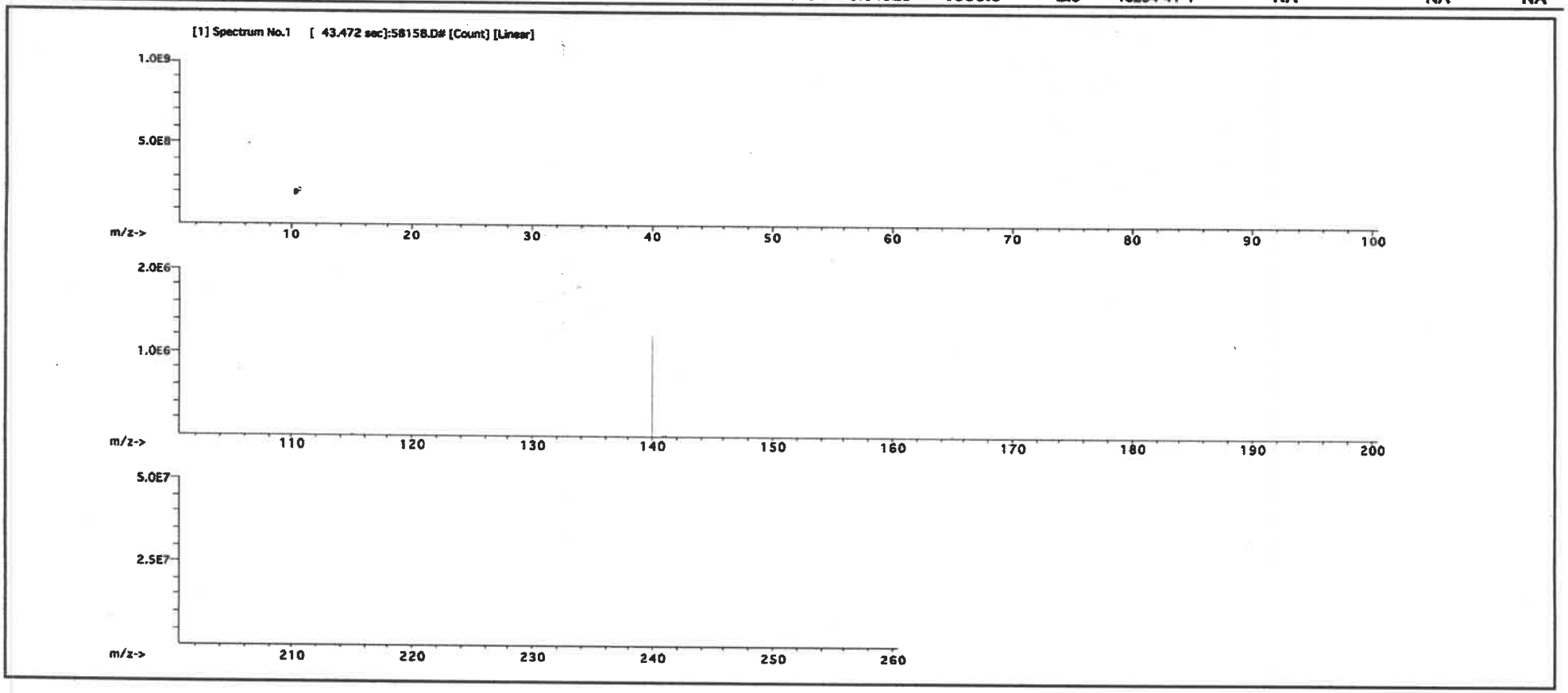
Part Number: 57058
Lot Number: 061322
Description: Cerium (Ce)

Expiration Date: 061325
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12 5E-05 Balance Uncertainty 0.058 Flask Uncertainty

	Lot #	
Solvent:	20510011	Nitric Acid
2%	20.0 (mL)	Nitric Acid

Formulated By:	Lawrence Barry	061322
Reviewed By:	Pedro L. Rentas	061322

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cerium nitrate hexahydrate (Ce)	IN146	Z512CEB1	1000	99.999	0.10	32.8	3.04919	3.04923	1000.0	2.0	10294-41-4	NA	NA	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	T	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

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

M5496 R 7/20/23

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

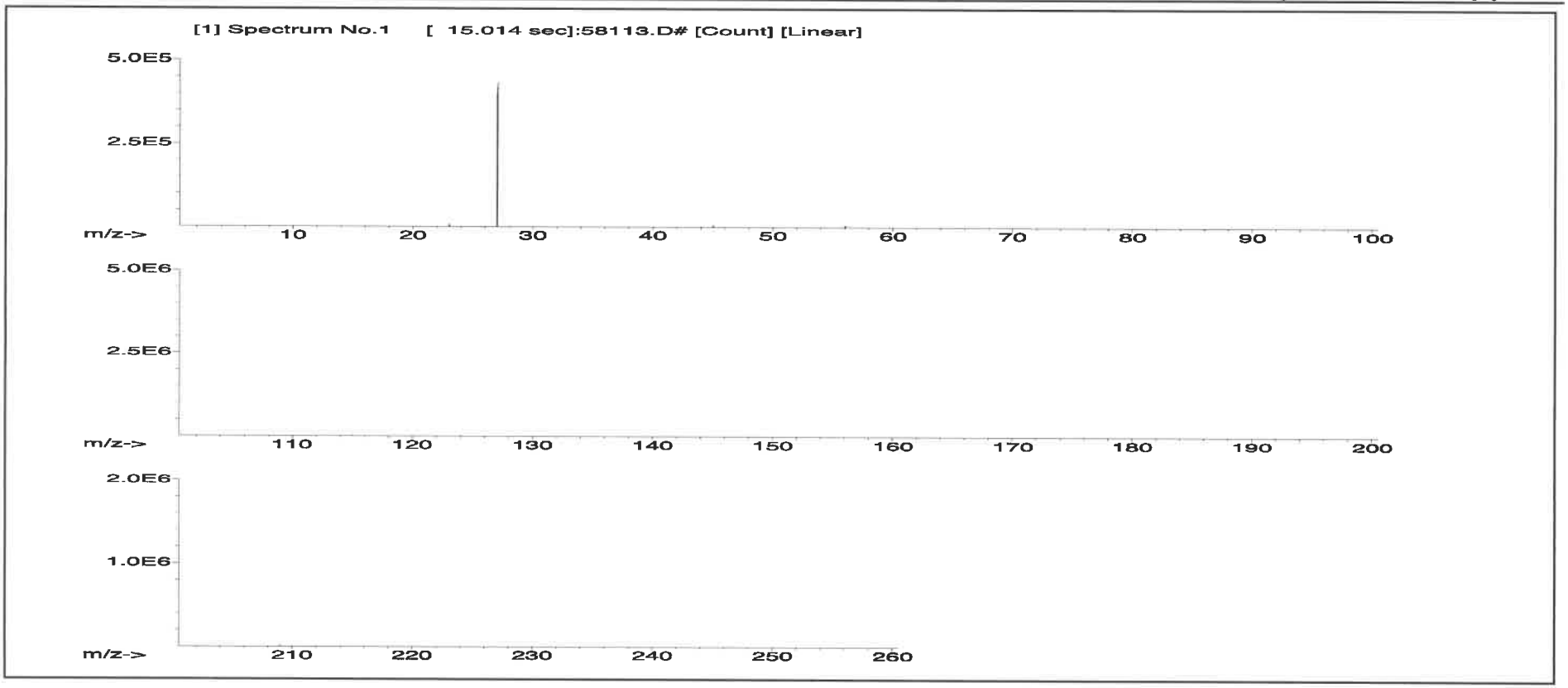
CERTIFIED WEIGHT REPORT:

Part Number:	**58113**		**Lot #**		
Lot Number:	**011623**	**Solvent:**	20510011	Nitric Acid	
Description:	**Aluminum (Al)**	2%	40.0 (mL)	Nitric Acid	
Expiration Date:	011626				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Giovanni Esposito

Formulated By:	Giovanni Esposito	011623
Reviewed By:	Pedro L. Rentas	011623

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Aluminum nitrate nonahydrate (Al)	IN022	ALM112021A1	10000	99.999	0.10	7.30	273.9779	274.0078	**10001.1**	**20.0**	7784-27-2	2 mg/m3	orl-rat 3671 mg/kg	3101a



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

IN5497 - IN5498 R: 03/17/23 BH

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58120
Lot Number: 031523
Description: Calcium (Ca)

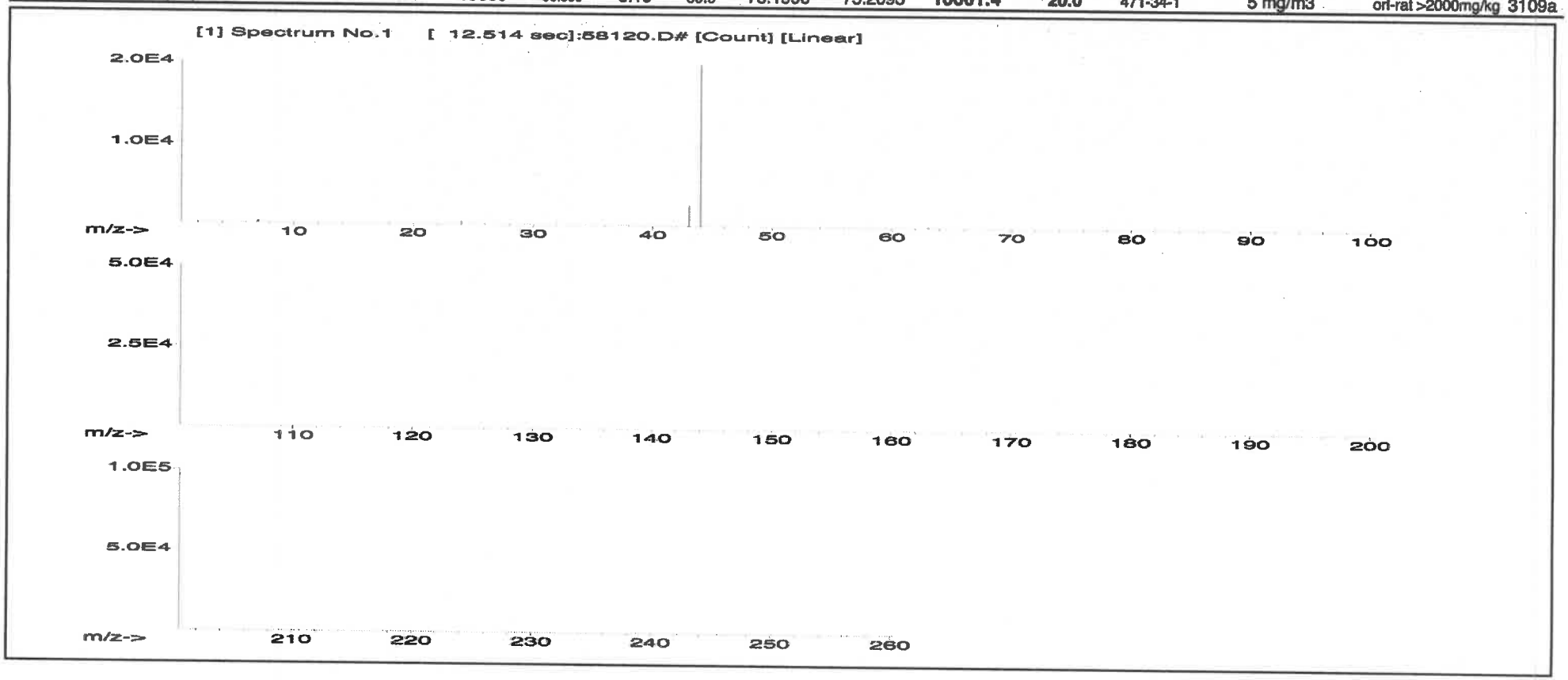
Expiration Date: 031526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41 ± 0.058 Flask Uncertainty

		Lot #	
Solvent:	21110221	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	031523
Reviewed By:	Pedro L. Rentas	031523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Calcium carbonate (Ca)	IN014	CAD072022A1	10000	99.999	0.10	39.9	75.1990	75.2093	**10001.4**	**20.0**	471-34-1	5 mg/m3	orl-rat >2000mg/kg	3109a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	T	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* 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

M516 M517 R: 03/17/22 BH

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58111
Lot Number: 022123
Description: Sodium (Na)

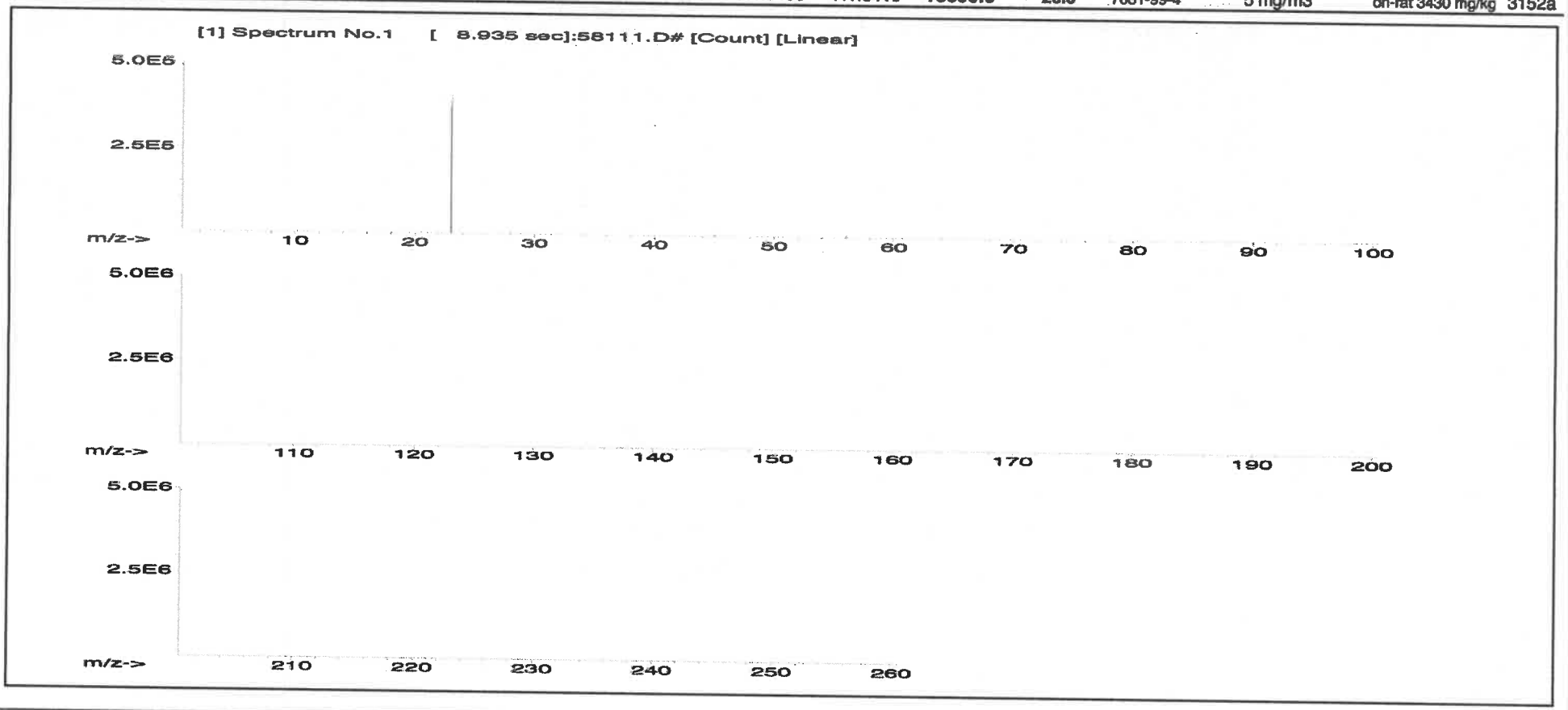
Expiration Date: 022126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41 0.06 Flask Uncertainty

	Lot #		
Solvent:	21110221	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	022123
Reviewed By:	Pedro L. Rentas	022123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	111.5406	111.5410	**10000.0**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	T	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* 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

M519. M520 (BH) R:03/17/23

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58119
Lot Number: 120822
Description: Potassium (K)

Expiration Date: 120825
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.4

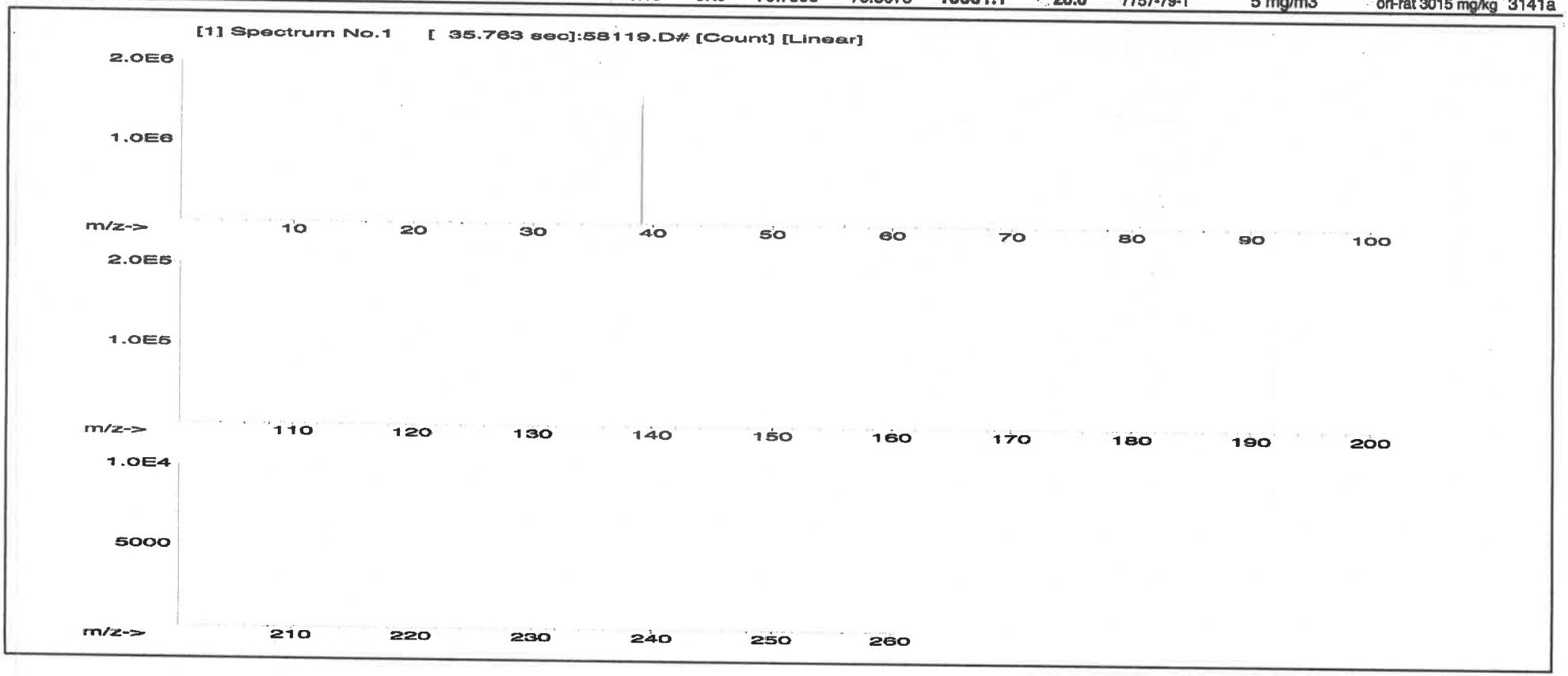
Lot #		
Solvent: 20510011		Nitric Acid
2%	60.0 (mL)	Nitric Acid

5E-05 Balance Uncertainty
0.06 Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	120822
Reviewed By:	Pedro L. Rentas	120822

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD022021A1	10000	99.999	0.10	37.6	79.7990	79.8075	**10001.1**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3015 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

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

M519. M520 (BH) R:03/17/23

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58119
Lot Number: 120822
Description: Potassium (K)

Expiration Date: 120825
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.4

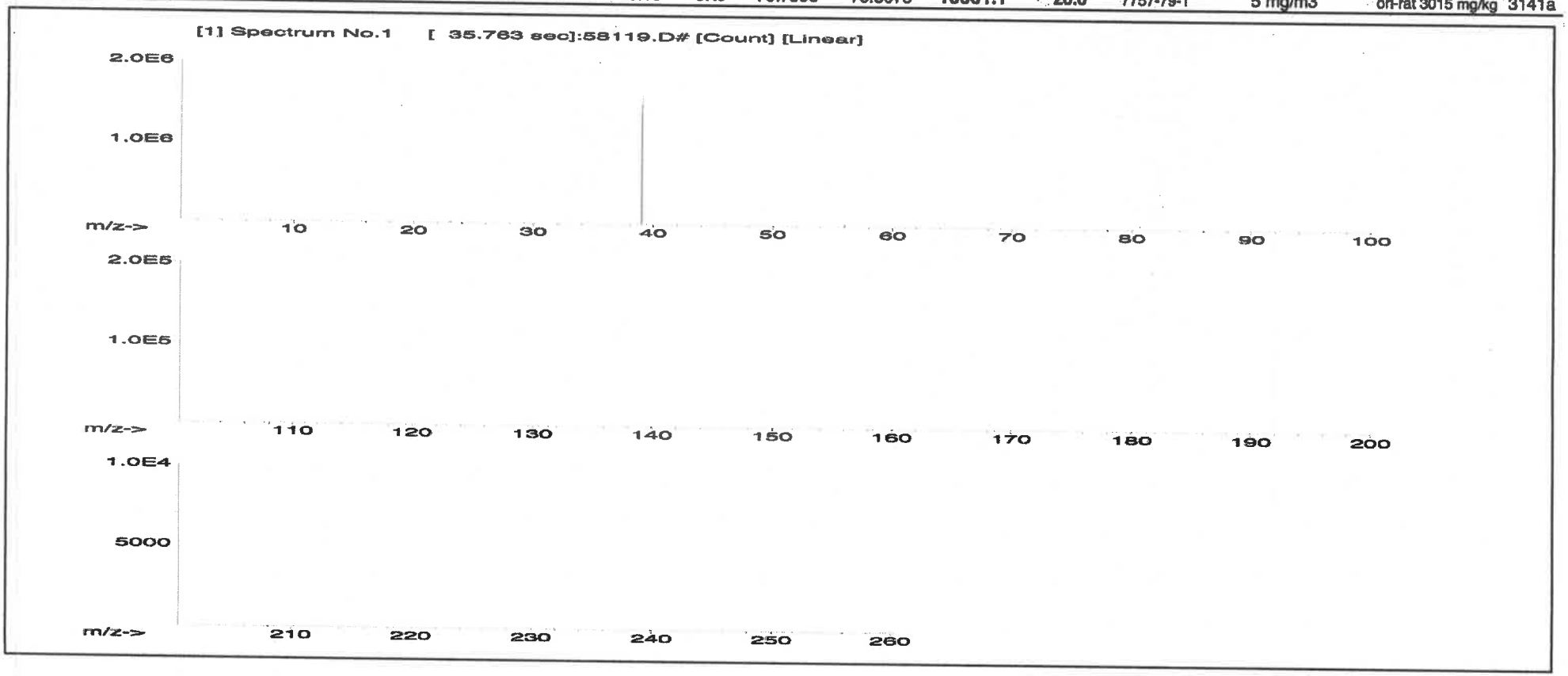
Lot #		
Solvent: 20510011		Nitric Acid
2%	60.0 (mL)	Nitric Acid

5E-05 Balance Uncertainty
0.06 Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	120822
Reviewed By:	Pedro L. Rentas	120822

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD022021A1	10000	99.999	0.10	37.6	79.7990	79.8075	**10001.1**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3015 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

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

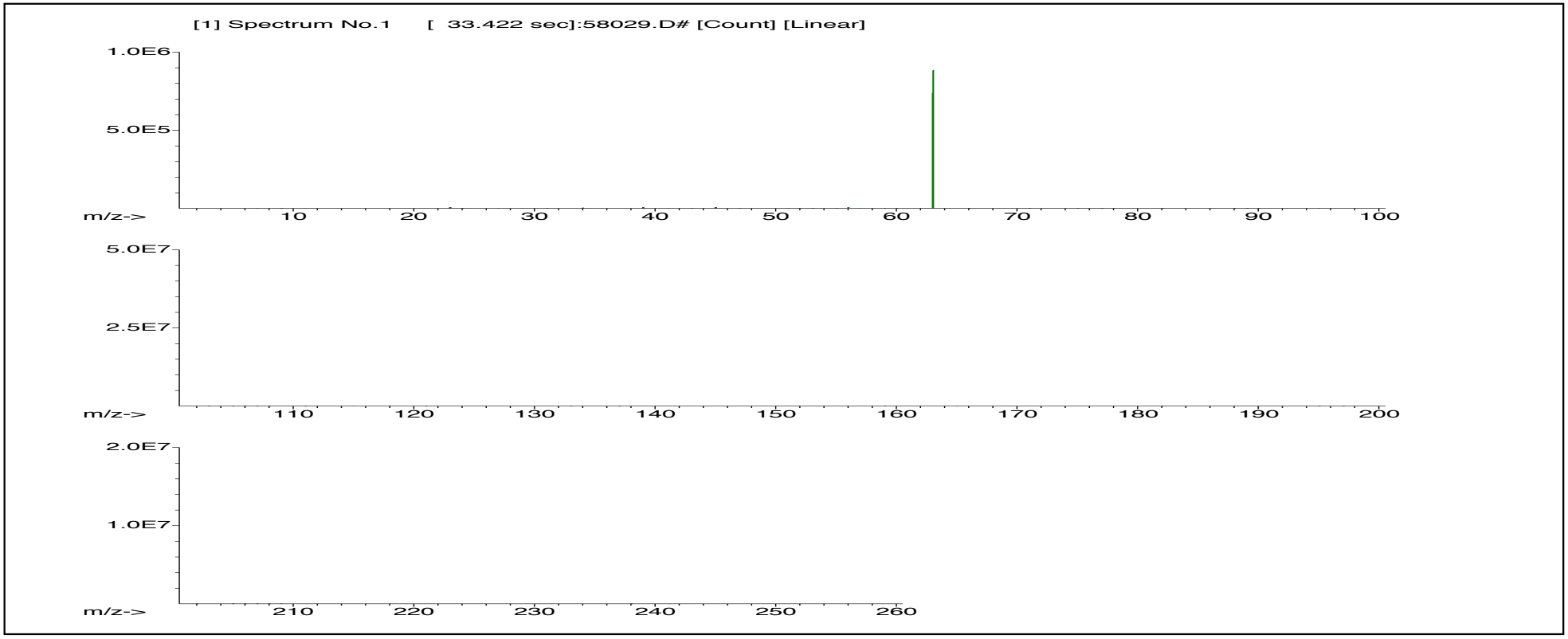
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58029**	20510011	Nitric Acid	
Lot Number:	**102622**			
Description:	**Copper (Cu)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	102625			
Recommended Storage:	Ambient (20 ºC)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Eli Aliaga 102622
Reviewed By:	Pedro L. Rentas 102622

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	**Final Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Copper(II) nitrate trihydrate (Cu)	58129	021422	0.1000	200.0	0.084	1000	10000.8	**1000.0**	**2.2**	10031-43-3	1 mg/m3	orl-rat 794 mg/kg	3114



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.

* 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).

QATS LABORATORY INORGANIC REFERENCE MATERIAL INITIAL CALIBRATION VERIFICATION SOLUTIONS (ICV1, ICV5, AND ICV6)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

MSS28-37
MB

Contains Metals in Dilute Acidic or Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more Aqueous Inorganic Reference Materials containing various analyte concentrations. ICV1 and ICV5 are in a matrix of dilute nitric acid. ICV6 is in a matrix of dilute basic solution. **For the reference material source in reporting ICVs use "USEPA". For the reference material lot number for the ICV1, ICV5, and ICV6 solutions use "ICV1-1014", "ICV5-0415", and "ICV6-0400", respectively.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP, AA, and Cyanide colorimetric instruments, and are to be used with the CLP SOWs and revisions. The values for each element in the ICVs are listed below in µg/L (ppb) for the resulting solution(s) after the dilution of the concentrate(s) according to the following instructions. Use Class 'A' glassware to prepare the solution(s).

ICV1-1014 For ICP-AES analysis, use a 10-fold dilution by pipetting 10 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

Instructions for QATS Reference Material: *Inorganic ICV Solutions*

ICV1-1014 For ICP-MS analysis, use a 50-fold dilution by pipetting 2 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.

ICV5-0415 For the cold vapor analysis of mercury by AA, use a 100-fold dilution by pipetting 1 mL of the ICV5 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v) $K_2Cr_2O_7$ and 5% (v/v) nitric acid.

ICV6-0400 For the analysis of cyanide, use a 100-fold dilution by pipetting 1 mL of the ICV6 concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from $K_3Fe(CN)_6$, Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

NOTE: USE TYPE II WATER AND HIGH-PURITY ACIDS FOR ALL DILUTIONS.

(D) *CERTIFIED CONCENTRATIONS OF QATS ICV1, ICV5, AND ICV6 SOLUTIONS*

ICV1-1014		
Element	**Concentration (µg/L) (after 10-fold dilution)**	**Concentration (µg/L) (after 50-fold dilution)**
Al	2500	500
Sb	1000	200
As	1000	200
Ba	520	100
Be	510	100
Cd	510	100
Ca	10000	2000
Cr	520	100
Co	520	100
Cu	510	100
Fe	10000	2000
Pb	1000	200
Mg	6000	1200
Mn	520	100
Ni	530	110
K	9900	2000
Se	1000	200
Ag	250	50
Na	10000	2000
Tl	1000	210
V	500	100
Zn	1000	200

ICV5-0415		ICV6-0400	
Element	**Concentration (µg/L) (after 100-fold dilution)**	**Analyte**	**Concentration (µg/L) (after 100-fold dilution)**
Hg	4.0	**CN^-**	99

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5658 R ! 8/25/23

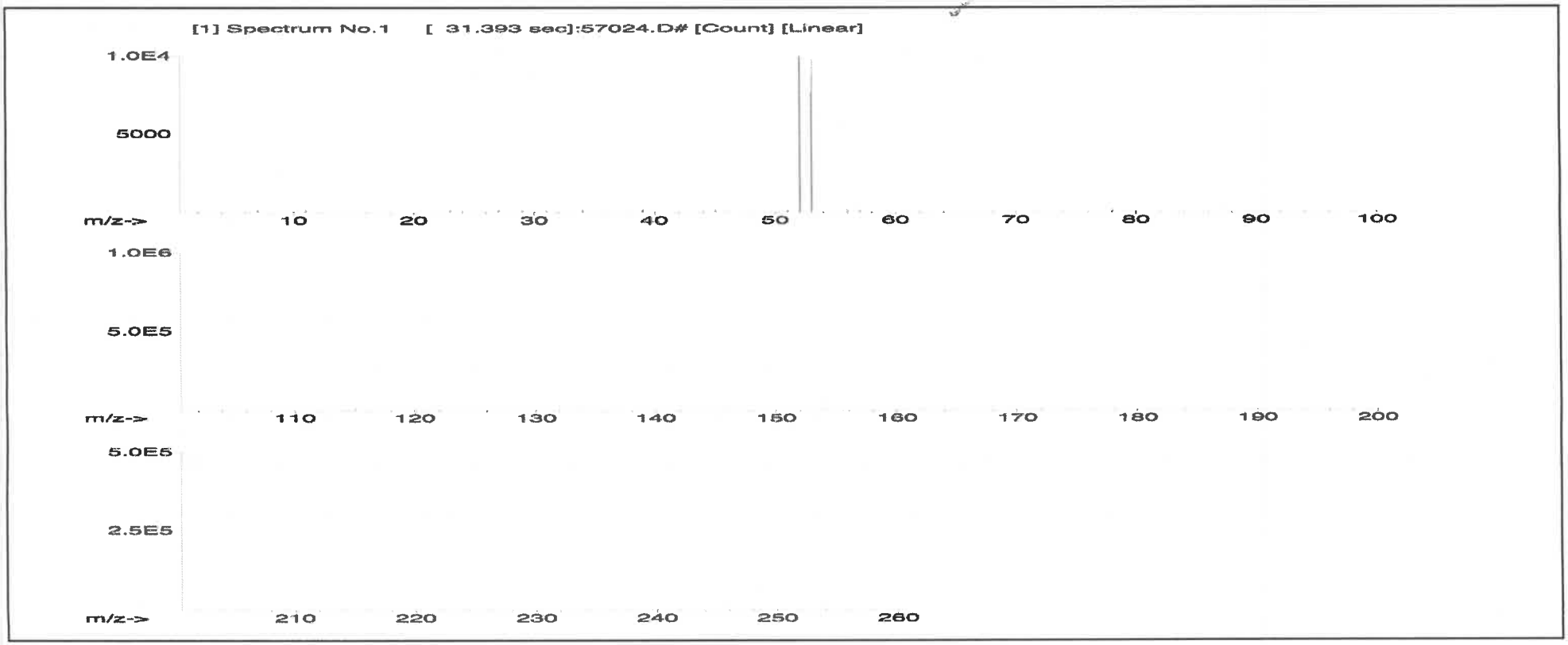
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 12/20/23 M5747

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57082
Lot Number: 100923
Description: Lead (Pb)

Expiration Date: 100926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

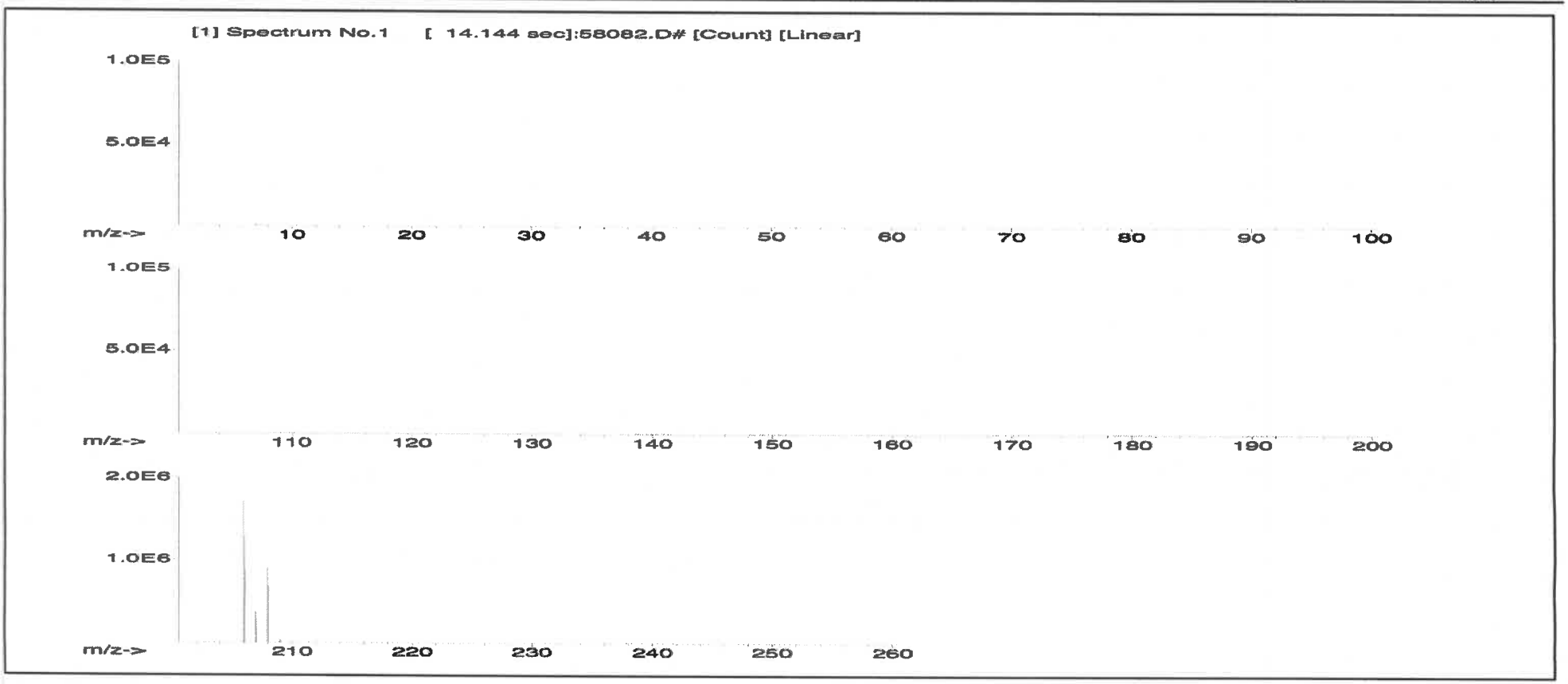
Weight shown below was diluted to (mL): 3000.41 0.06 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	100923
Reviewed By:	Pedro L. Rentas	100923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	1000	99.999	0.10	62.5	4.80071	4.80077	**1000.0**	**2.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



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.
* 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

R: 12/20/23 M5748

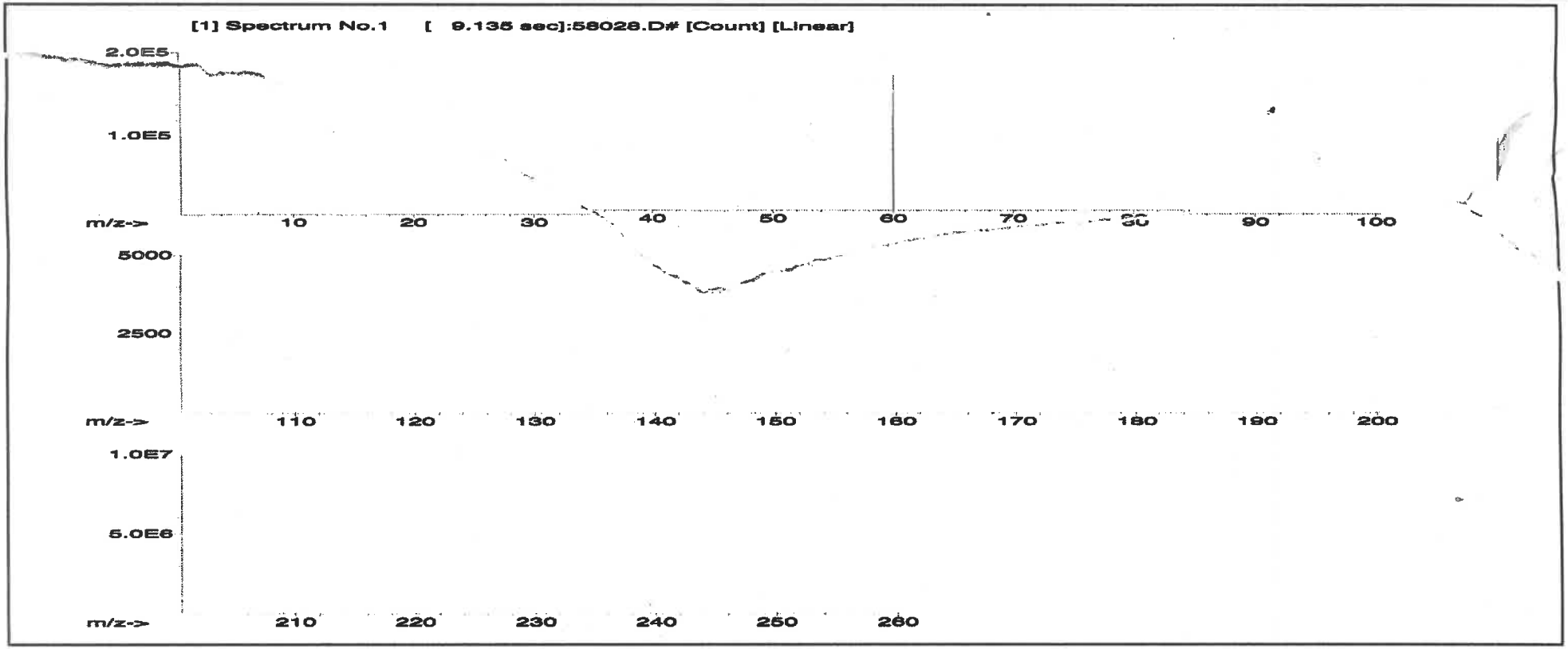
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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.
* 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

R: 8/25/23 M5751

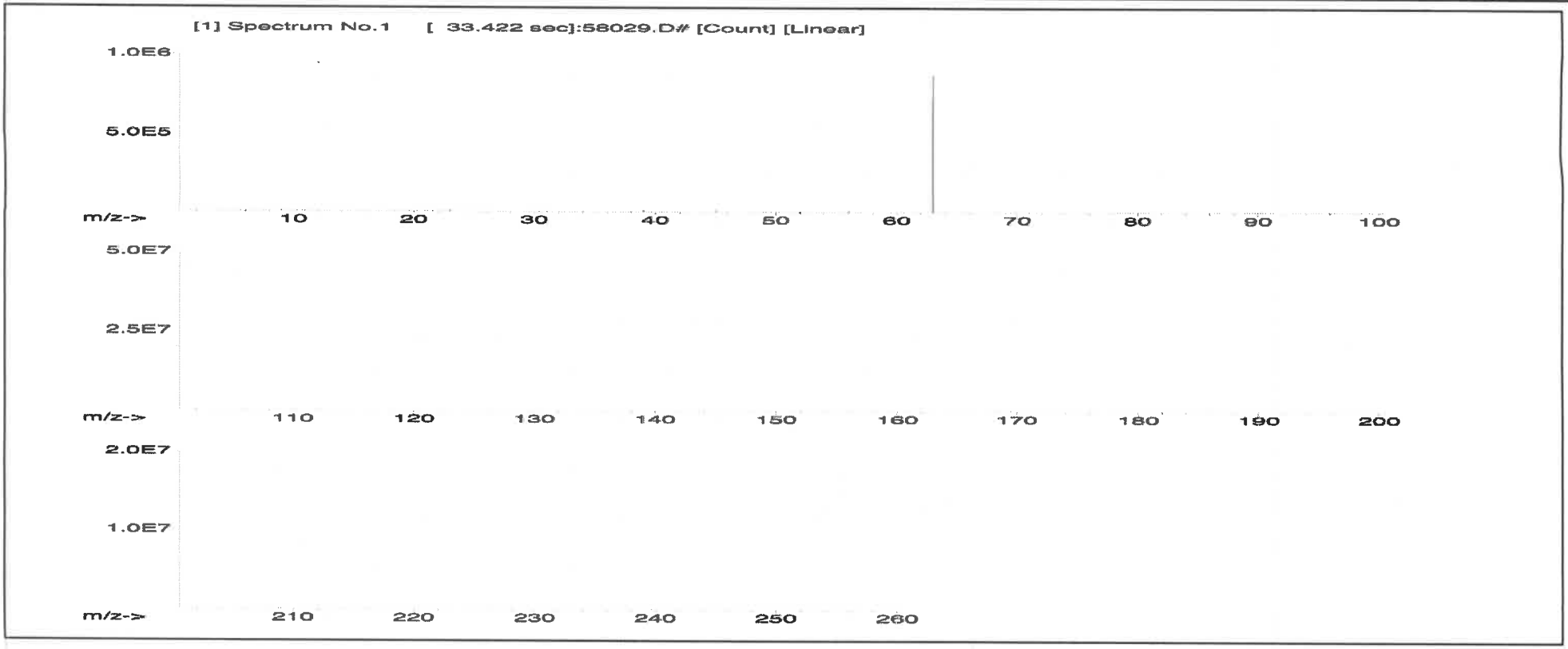
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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.

* 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

M5768 M5769 (BP) R:1/3/24

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58112
Lot Number: 091823
Description: Magnesium (Mg)

Expiration Date: 091826
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

M5768, M5769 (BP) R: 1/3/24

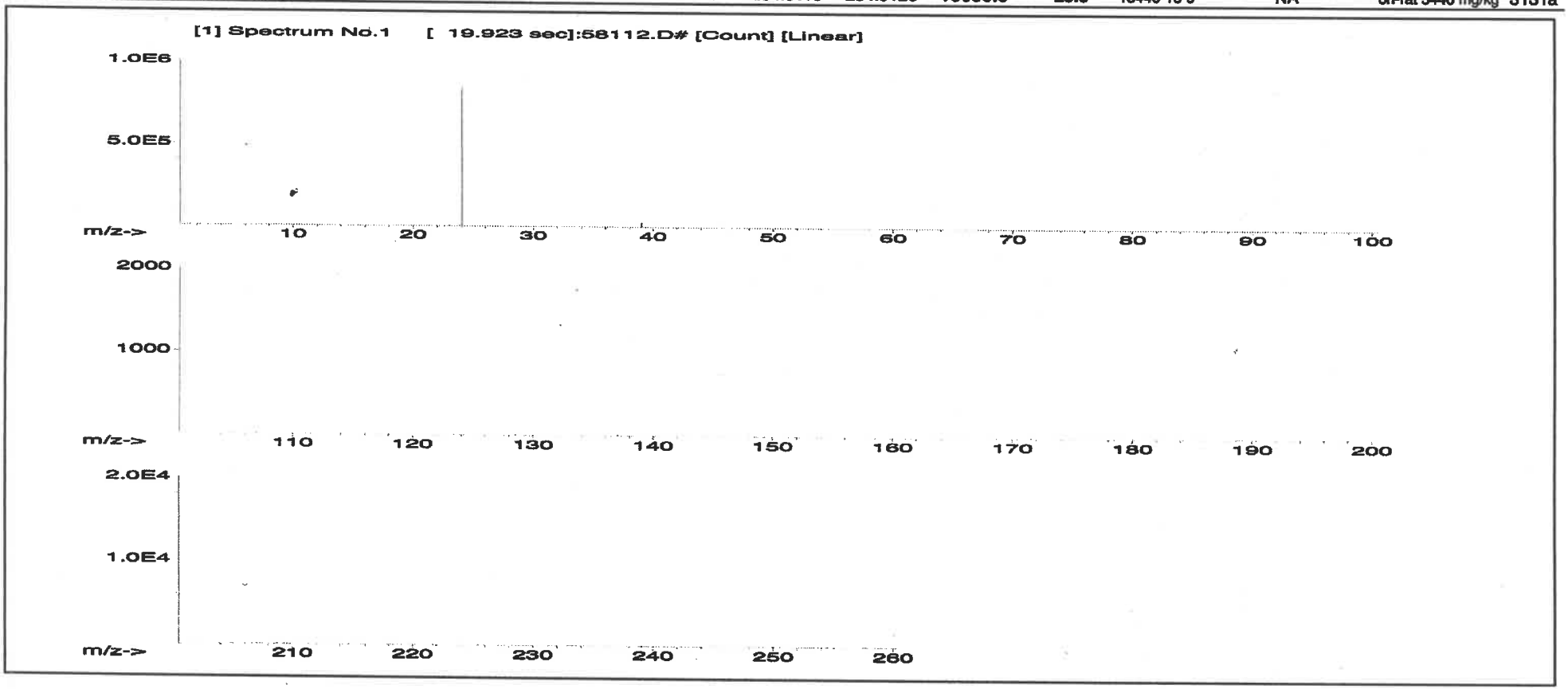
Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
	2%	40.0 (mL)	Nitric Acid
		5E-05	Balance Uncertainty

Formulated By: Lawrence Barry 091823

Reviewed By: Pedro L. Rentas 091823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9118	234.9126	**10000.0**	**20.0**	13446-18-9	NA	ori-rat 5440 mg/kg	3131a



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).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 02/09/24 M5798

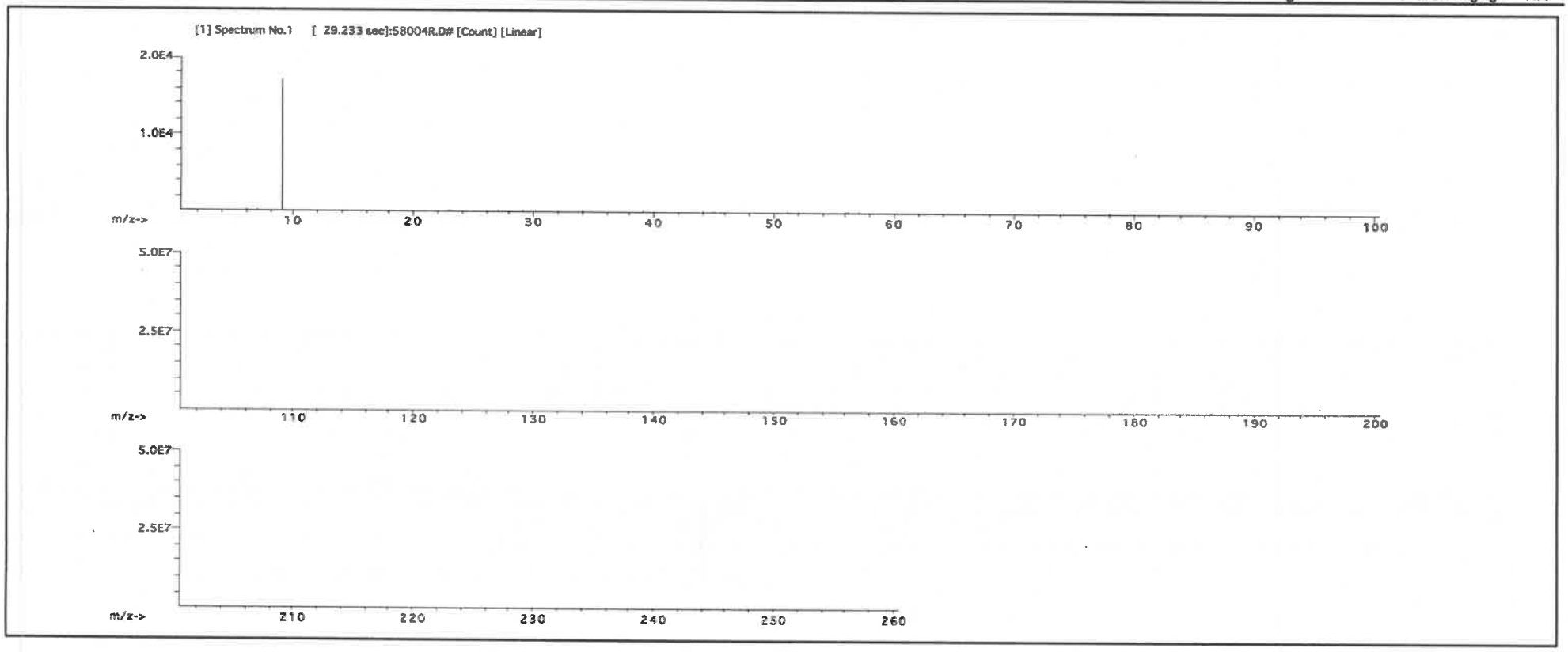
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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.

* 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

R? 02/09/24 IV15799

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

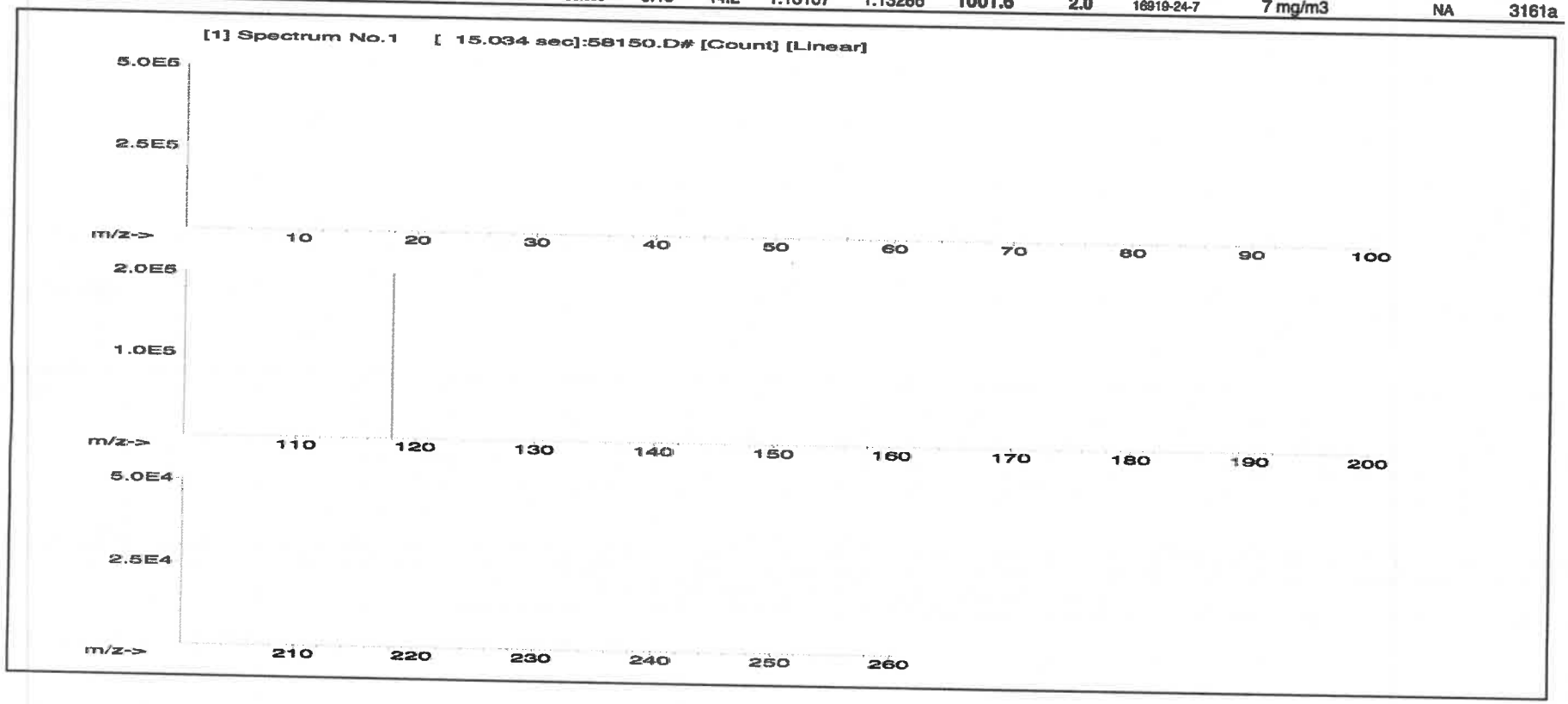
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	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:

* 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

R: 02/09/24 IM5800 BH

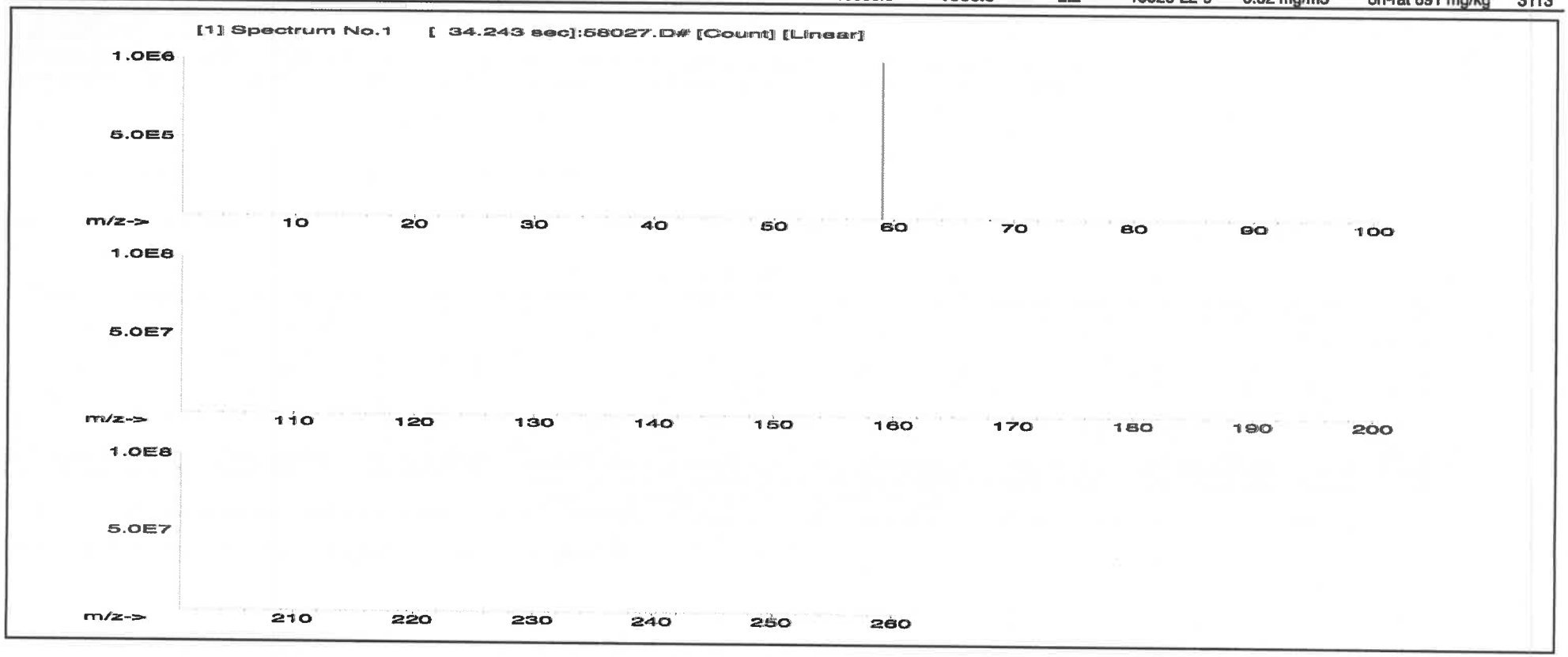
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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.

* 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

R: 02/09/24 IM5801 BH

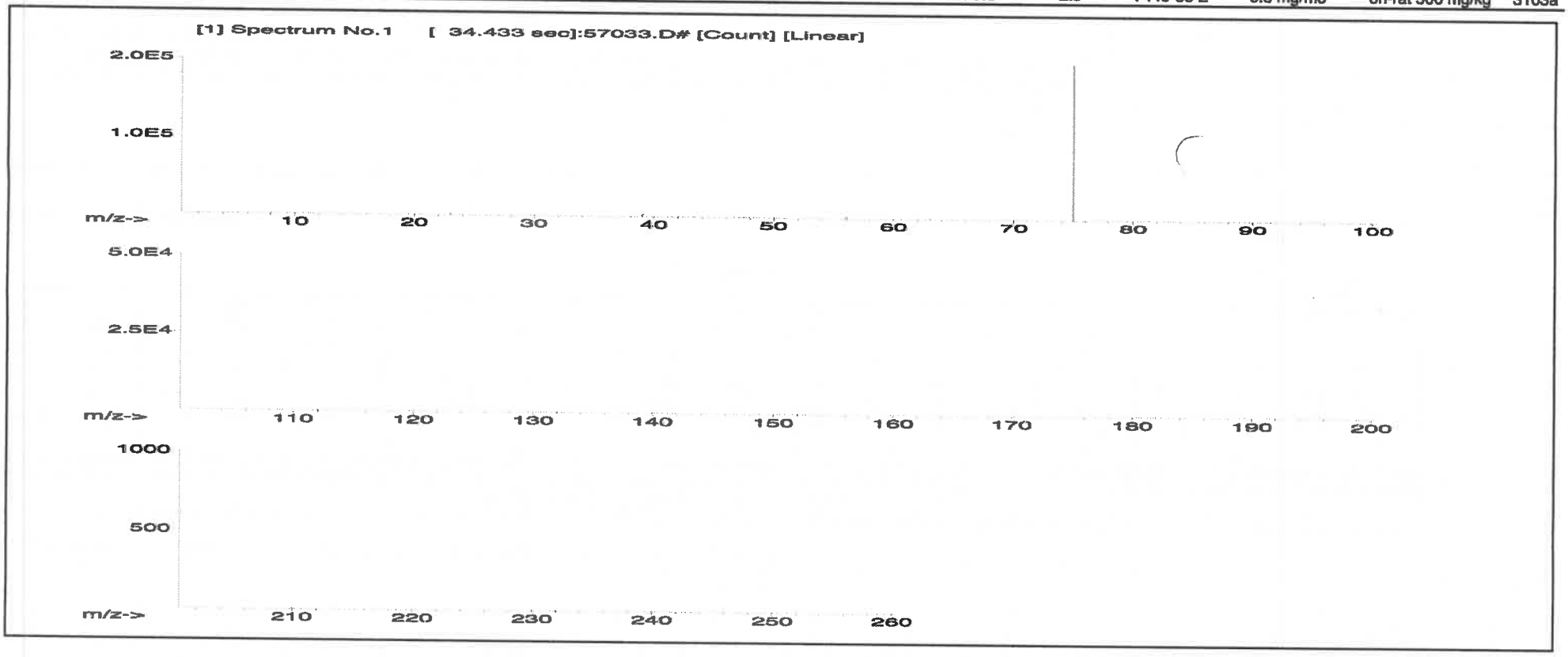
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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.
* 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

A: 02/09/24 M.5814

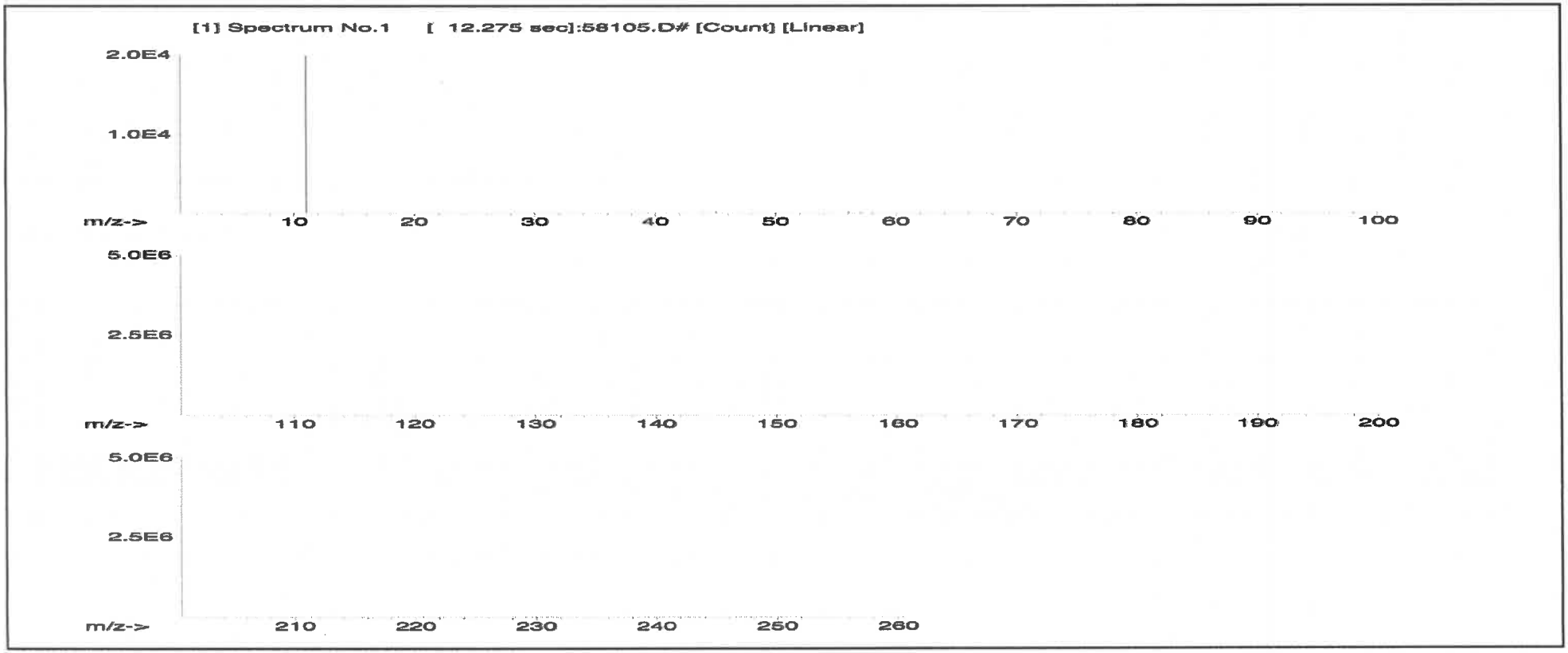
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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:

* 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

R1 02/09/24. M58165

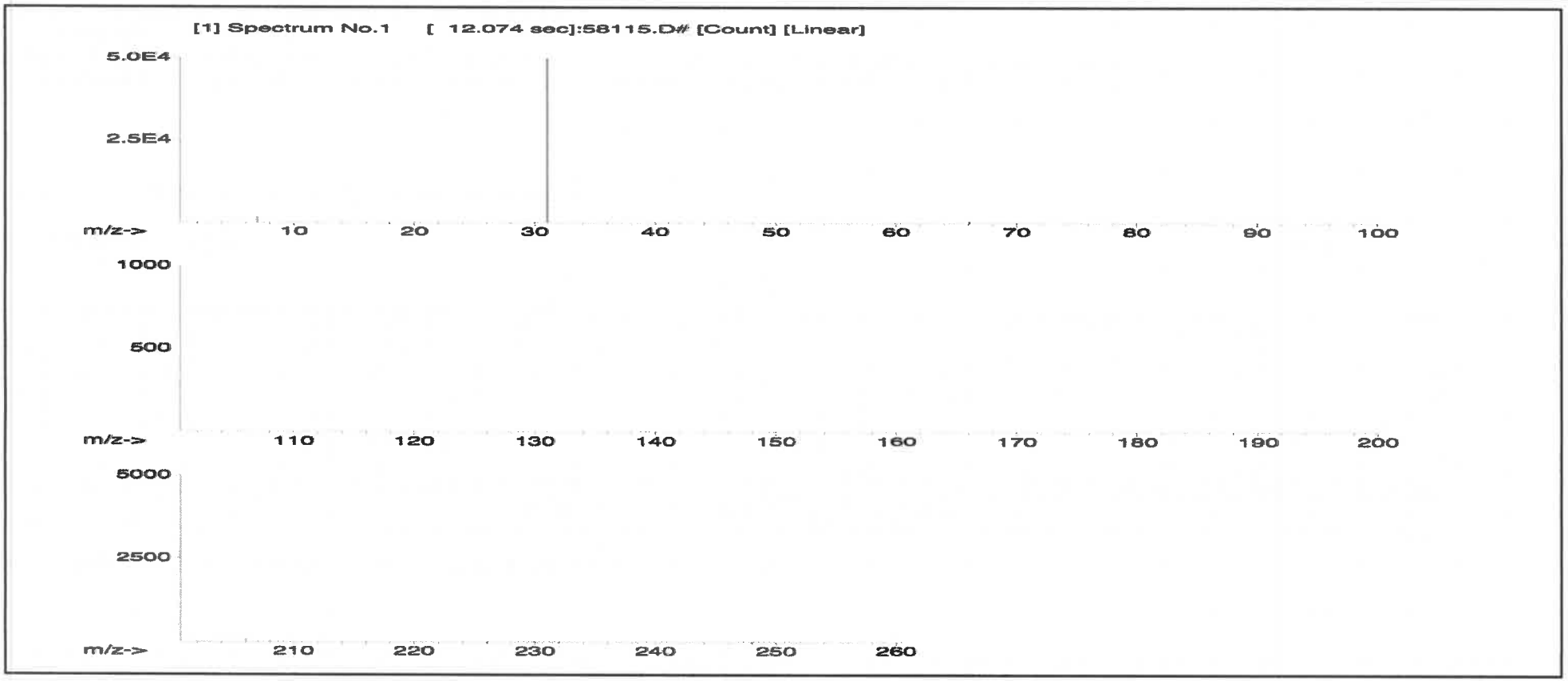
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

			Lot #	
Part Number:	**57115**	**Solvent:**	21110221	Nitric Acid
Lot Number:	**041723**			
Description:	**Phosphorous (P)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	041726			
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:	Lawrence Barry	041723
Reviewed By:	Pedro L. Rentas	041723

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	10000	99.999	0.10	27.5	72.7287	72.7289	**10000.0**	**20.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/kg	3186



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

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

R: 02/09/24 M5816

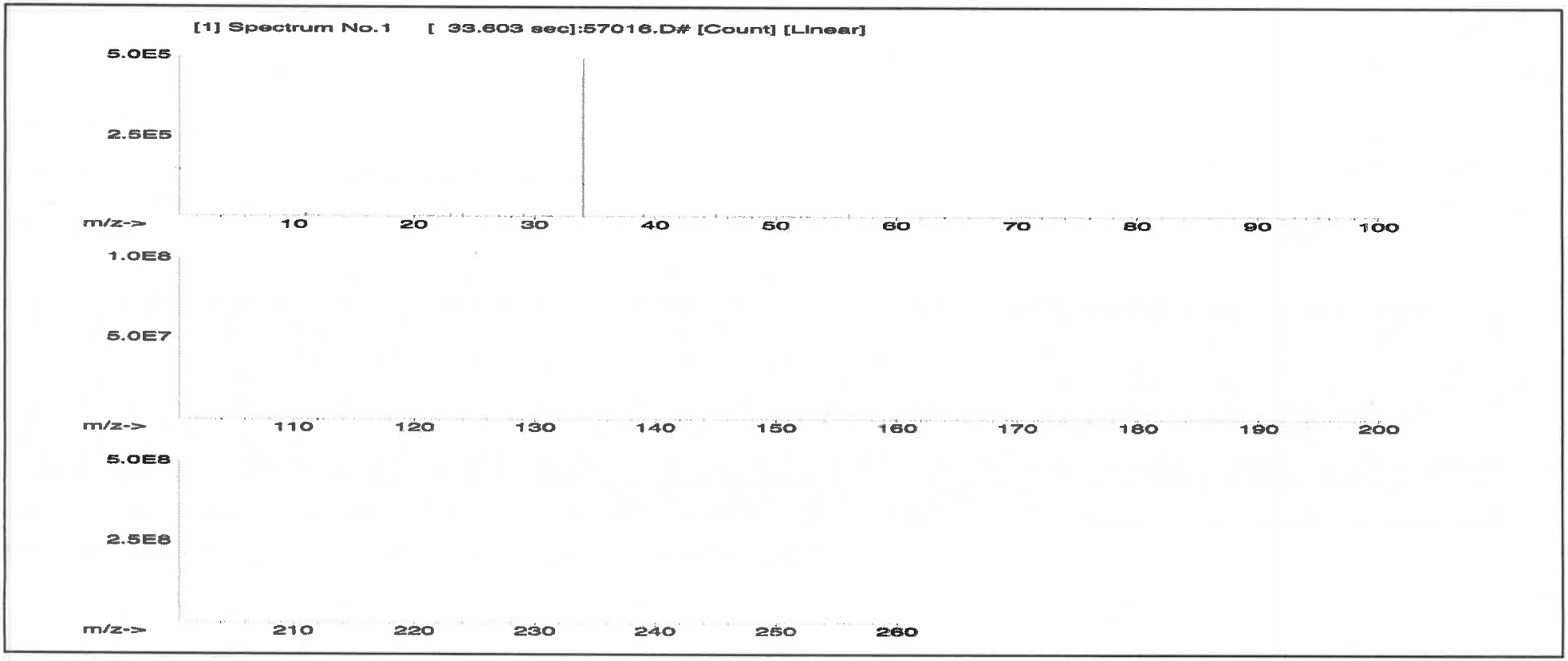
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number:	**57016**	**Solvent:**	**Lot #** 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	

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



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:



* 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

R: 02/09/24 M5817

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

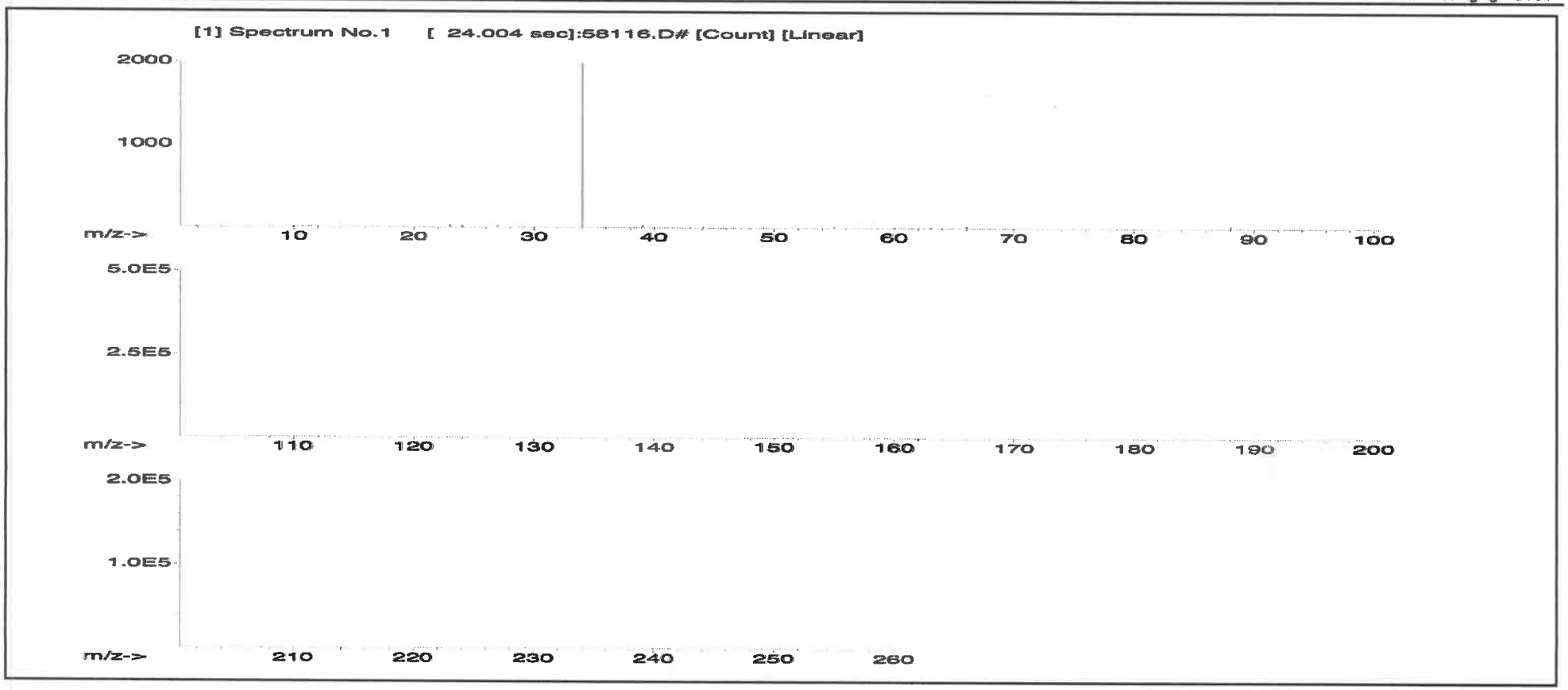
Part Number: 57116
Lot Number: 071123
Description: Sulfur (S)

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:



* 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

R: 02/09/24 M5820

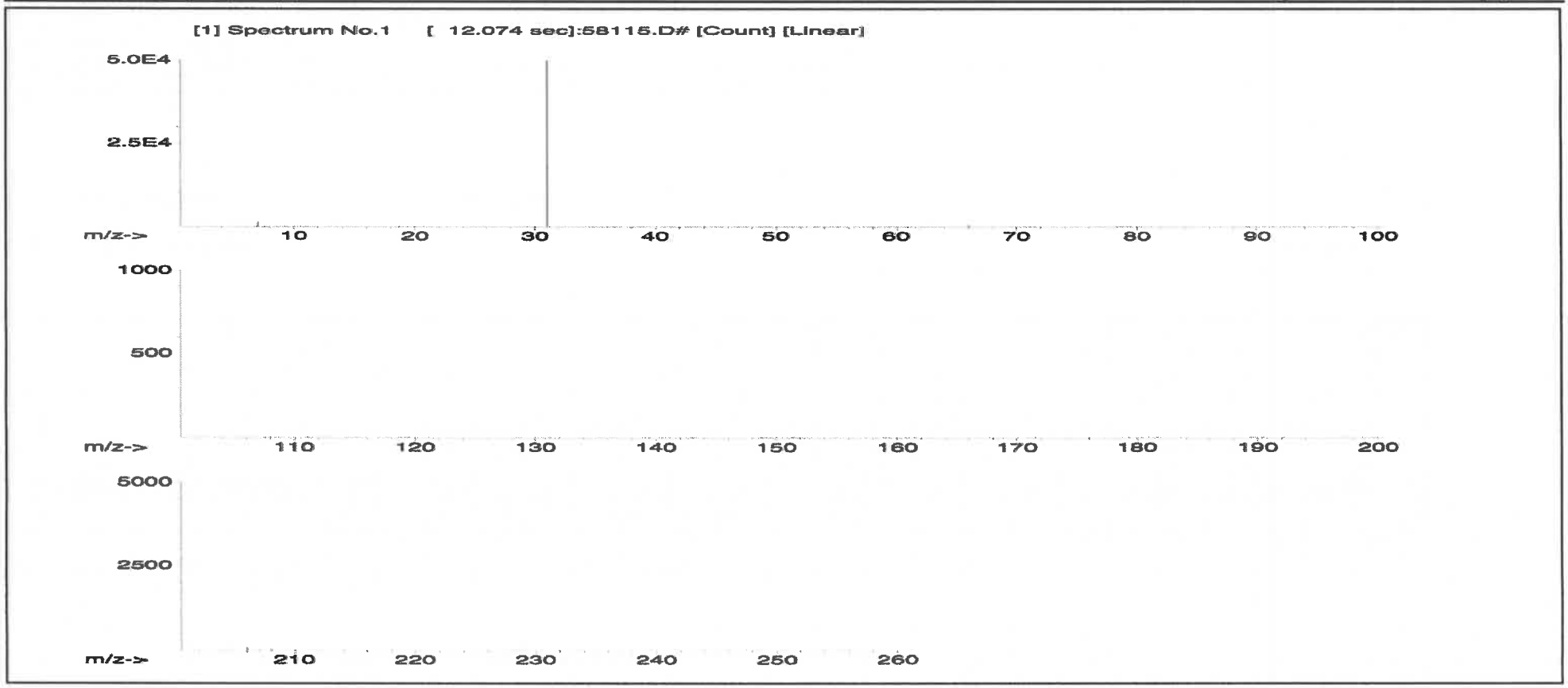
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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.

* 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).

Sodium Chloride, Crystal
BAKER ANALYZED® A.C.S. Reagent

MT884
MB

avantor™ | J.T.Baker®

Material No.: 3624-01
Batch No.: 0000281938
Manufactured Date: 2021-06-07
Retest Date: 2026-06-07
Revision No.: 1

Certificate of Analysis

Test	Specification	Result
Assay (NaCl) (by Ag titrn)	≥ 99.0 %	100.0 %
pH of 5% Solution at 25°C	5.0 - 9.0	6.3
Insoluble Matter	≤ 0.005 %	0.003 %
Iodide (I)	≤ 0.002 %	< 0.002 %
Bromide (Br)	≤ 0.01 %	< 0.01 %
Chlorate and Nitrate (as NO_3)	≤ 0.003 %	< 0.001 %
ACS - Phosphate (PO_4)	≤ 5 ppm	< 5 ppm
Sulfate (SO_4)	≤ 0.004 %	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
ACS - Heavy Metals (as Pb)	≤ 5 ppm	< 5 ppm
Iron (Fe)	≤ 2 ppm	< 1 ppm
Calcium (Ca)	≤ 0.002 %	< 0.001 %
Magnesium (Mg)	≤ 0.001 %	< 0.001 %
Potassium (K)	≤ 0.005 %	0.001 %

For Laboratory,Research,or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs
Country of Origin: USA
Packaging Site: Paris Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Mansford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

R: 02/22/24 M5942

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

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) HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Titanium
Starting Material:	Ti Metal
Starting Material Lot#:	2094
Starting Material Purity:	99.9975%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL

Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1002 ± 4 µg/mL**
ICP Assay NIST SRM 3162a Lot Number: 130925

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

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

M5959 R: 6/14/24.

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGY10
Lot Number:	V2-Y740548
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Yttrium
Starting Material:	Yttrium Oxide
Starting Material Lot#:	2661 and 06230520YL
Starting Material Purity:	99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10000 ± 30 µg/mL

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10011 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #2	**9997 ± 50 µg/mL** ICP Assay NIST SRM 3167a Lot Number: 190730
Assay Method #3	**9984 ± 31 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5961 R: 6/11/24

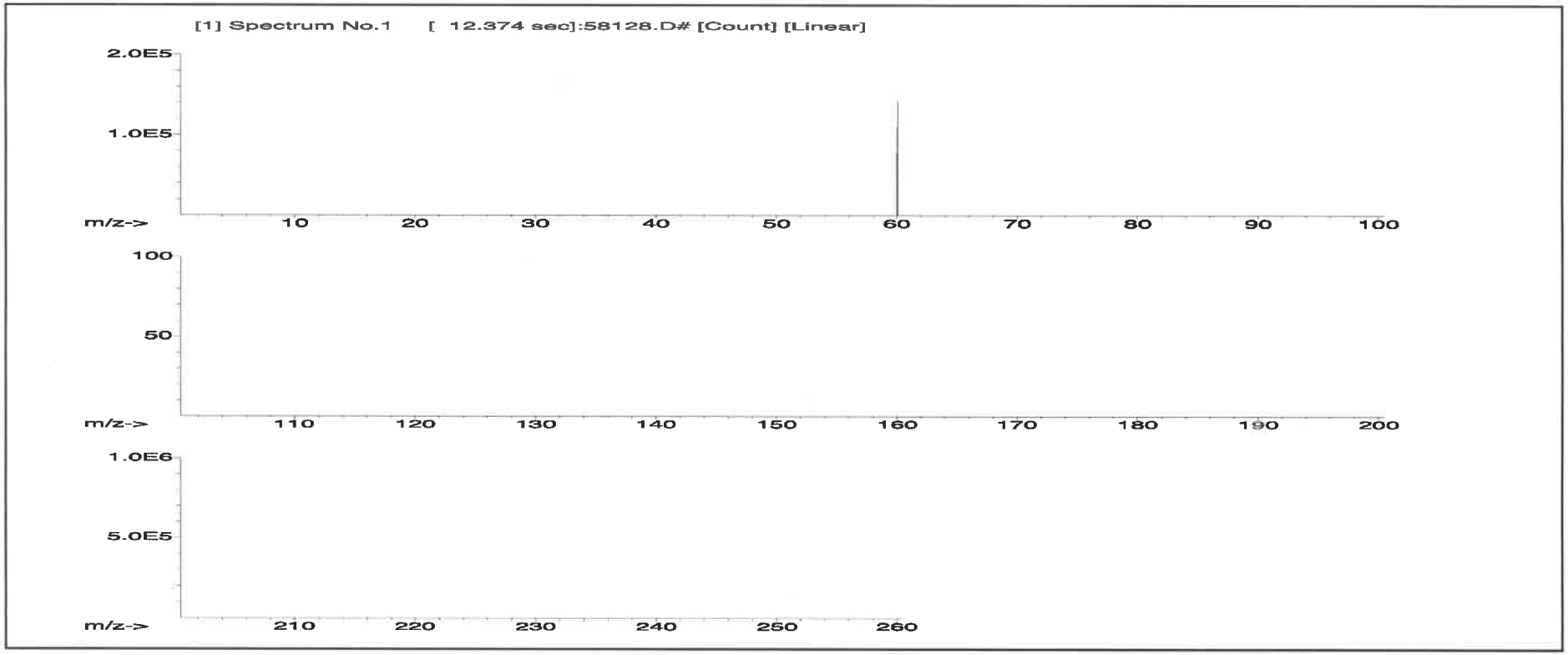
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

			Lot #	
Part Number:	**57028**	**Solvent:**	24002546	Nitric Acid
Lot Number:	**041124**			
Description:	**Nickel (Ni)**			
		2%	5.0 (mL)	Nitric Acid
Expiration Date:	041127			
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):	249.85	0.002	Flask Uncertainty	

Formulated By:	Brian Geddes	041124
Reviewed By:	Pedro L. Rentas	041124

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. Nickel(II) nitrate hexahydrate (Ni)	IN033	NIM052023A1	1000	99.999	0.10	20.2	1.2369	1.2369	**1000.0**	**2.0**	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).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5962 R! 06/14/24.

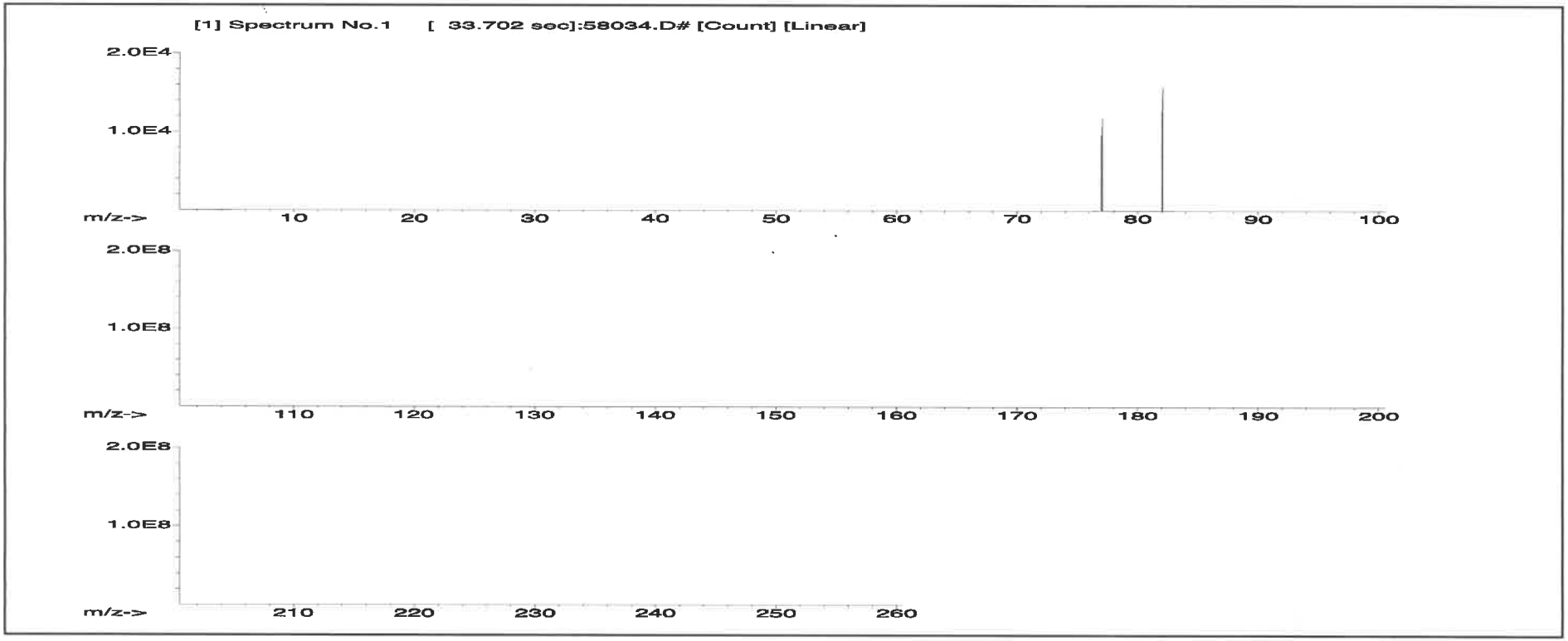
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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

M5970, M5971 R: 7/01/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

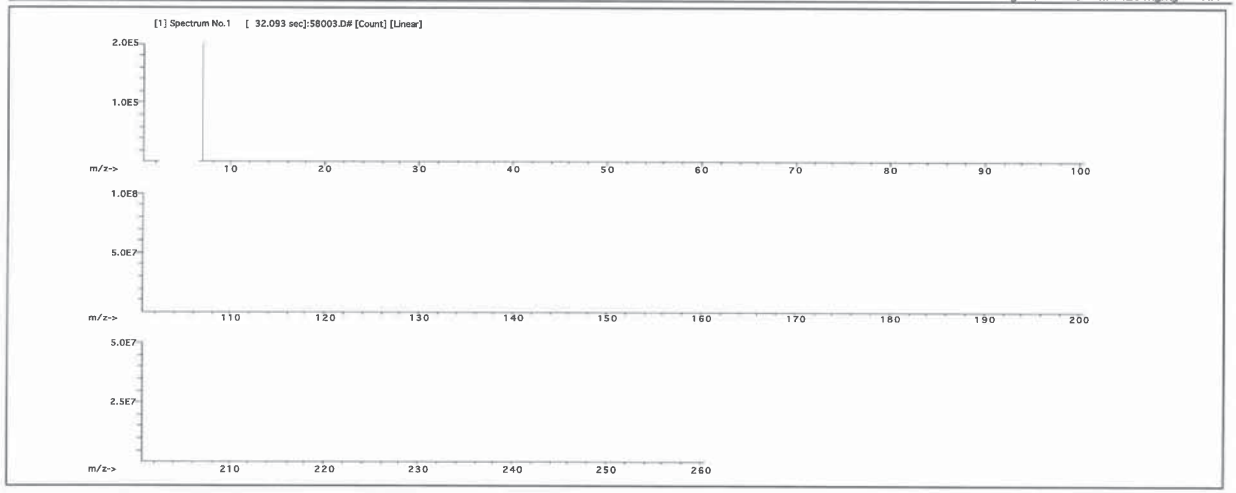
CERTIFIED WEIGHT REPORT:

		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.
* 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

M5976, M5977
R: 02/22/24

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

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:	CGMO1
Lot Number:	T2-MO720876
Matrix:	H2O tr. NH4OH
Value / Analyte(s):	1 000 µg/mL ea: Molybdenum
Starting Material:	Ammonium Molybdate
Starting Material Lot#:	2361
Starting Material Purity:	99.9893%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 998 ± 7 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 3134 Lot Number: 130418

- 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	<	0.000590	M	Eu	<	0.000300	M	Na		0.000879	M	Se	<	0.008000	M	Zn		0.000598
M	Al		0.000563	M	Fe	<	0.006500	M	Nb	<	0.029000	i	Si	<		M	Zr	<	0.001800
M	As	<	0.002100	M	Ga	<	0.000300	i	Nd	<		M	Sm	<	0.000300				
M	Au	<	0.000300	M	Gd	<	0.000300	M	Ni	<	0.008000	M	Sn	<	0.008900				
M	B	<	0.003300	M	Ge	<	0.000300	M	Os	<	0.000590	M	Sr		0.000175				
M	Ba		0.001689	M	Hf	<	0.001800	i	P	<		M	Ta	<	0.004200				
M	Be	<	0.000890	M	Hg	<	0.003300	M	Pb	<	0.000300	M	Tb	<	0.000300				
M	Bi	<	0.000890	M	Ho	<	0.000300	M	Pd	<	0.001800	M	Te	<	0.021000				
O	Ca		0.006334	M	In	<	0.032000	M	Pr	<	0.013000	M	Th	<	0.000300				
O	Cd	<	0.026000	M	Ir	<	0.000300	M	Pt	<	0.000300	O	Tl	<	0.032000				
M	Ce	<	0.008300	M	K		0.130213	M	Rb		0.004575	M	Tl		0.001266				
M	Co		0.000598	M	La	<	0.000300	M	Re	<	0.000300	M	Tm	<	0.000300				
M	Cr		0.000527	O	Li		0.000059	M	Rh	<	0.000300	M	U	<	0.005300				
M	Cs		0.000527	M	Lu	<	0.000300	M	Ru	<	0.079000	M	V	<	0.000890				
M	Cu		0.002252	M	Mg		0.000563	i	S	<		M	W		0.087982				
M	Dy	<	0.000300	M	Mn	<	0.005900	M	Sb		0.001513	M	Y	<	0.000300				
M	Er	<	0.000300	s	Mo	<		M	Sc	<	0.001200	M	Yb	<	0.000300				

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 - 95.94 +6 6,7,8,9 [MoO4]-2(chemical form as received)

Chemical Compatibility -Mo is received in a NH4OH matrix giving the operator the option of using HCl or HF to stabilize acidic solutions. The [MoO4]-2 is soluble in concentrated HCl [MoOCl5]-2, dilute HF / HNO3 [MoOF5]-2 and basic media [MoO4]-2. Stable at ppm levels with some metals provided it is fluorinated. Do not mix with Alkaline or Rare Earths when HF is present. Stable with most inorganic anions provided it is in the [MoO4]-2 chemical form.

Stability - 2-100 ppb levels stable (alone or mixed with all other metals that are at comparable levels) as the [MoOF5]-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the [MoO4]-2 chemically stable for years in 1% NH4OH in a LDPE container.

Mo Containing Samples (Preparation and Solution) -Metal (Soluble in HF / HNO3 or hot dilute HCl); Oxide (soluble in HF or NH4OH) ; Organic Matrices (Dry ash at 450EC in Pt0 and dissolve oxide with HF or 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 95 amu	3 ppt	n/a	40Ar39K16O,79Br1 6O,190Os2+,190Pt 2+
ICP-OES 202.030 nm	0.008 / 0.0002 µg/mL	1	Os, Hf
ICP-OES 203.844 nm	0.012 / 0.002 µg/mL	1	
ICP-OES 204.598 nm	0.012 / 0.001 µg/mL	1	Ir, Ta

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

July 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

- July 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 Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



M5978, M5979

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

H5981 R:6/11/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	57092	24002546	Nitric Acid	
Lot Number:	060724			
Description:	Uranium (U)	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060727			
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	

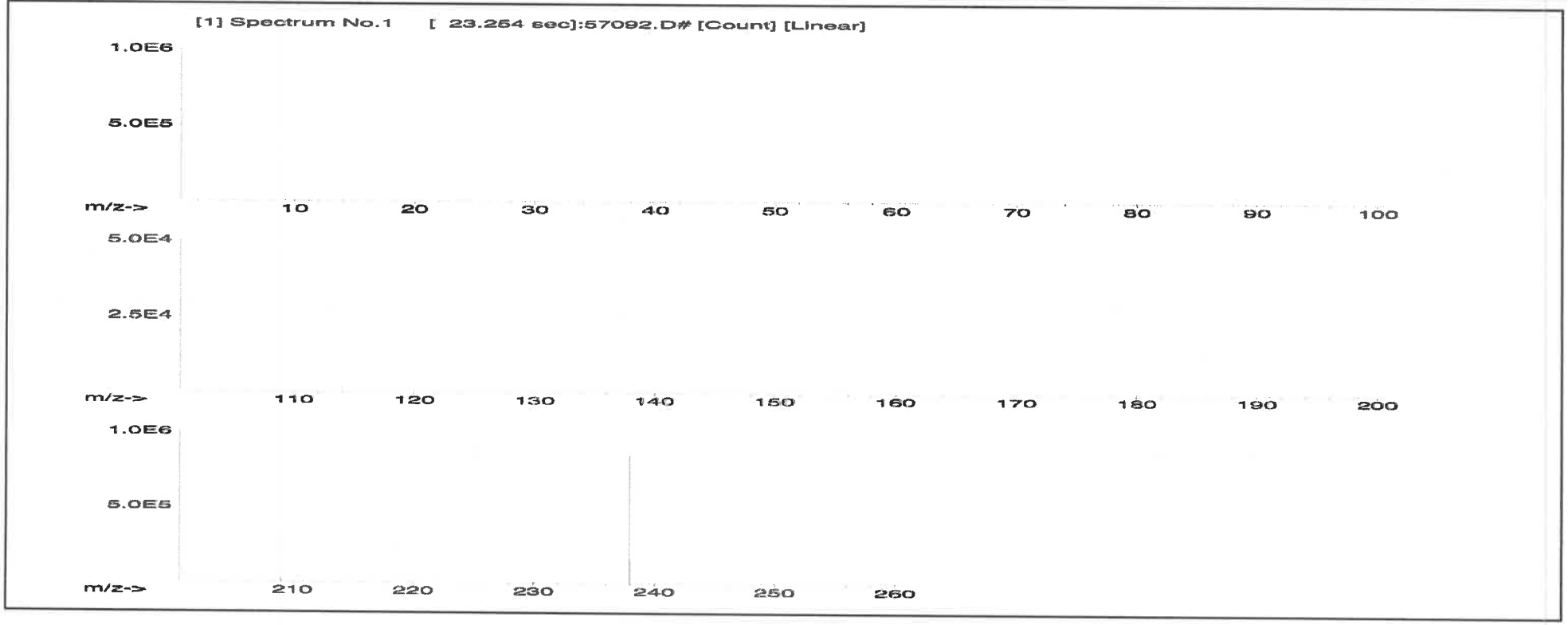
Giovanni Esposito

Formulated By:	Giovanni Esposito	060724

Pedro Rentas

Reviewed By:	Pedro L. Rentas	060724

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. Uranyl nitrate hexahydrate (U)	58192	041524	0.1000	200.0	0.084	1000	10001.5	**1000.0**	**2.2**	13520-83-7	0.05 mg/m3	orl-rat 1040 mg/kg	3164



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	T
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

M5983 R: 6/11/24

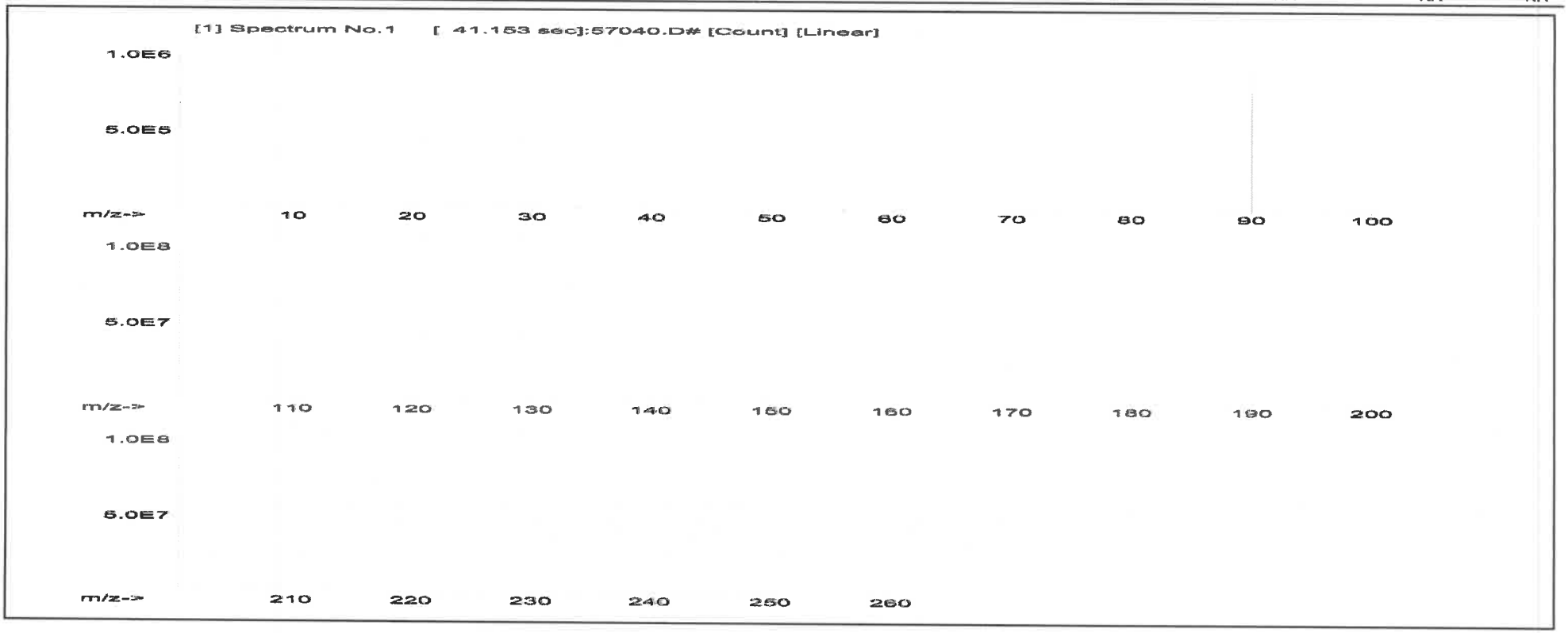
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57040**	21110221	Nitric Acid	
Lot Number:	**071423**			
Description:	**Zirconium (Zr)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	071426			
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	071423
Reviewed By:	Pedro L. Rentas	071423

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. Zirconyl chloride octahydrate (Zr)	58140	070621	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	13520-92-8	NA	NA	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	<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	T

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

MS985
R: 6/14/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGIN10
Lot Number:	U2-IN729349
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Indium
Starting Material:	Indium Metal
Starting Material Lot#:	2511
Starting Material Purity:	99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL

Density: 1.044 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10021 ± 56 µg/mL** ICP Assay NIST SRM 3124a Lot Number: 110516
Assay Method #2	**10035 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	**10001 ± 33 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000760	M	Eu	<	0.000760	O	Na		0.012771	M	Se	<	0.023000	M	Zn	<	0.006100
M	Al		0.003385	O	Fe		0.004462	M	Nb	<	0.000760	O	Si		0.024619	M	Zr	<	0.000760
M	As	<	0.004600	M	Ga	<	0.000760	M	Nd	<	0.000760	M	Sm	<	0.000760				
M	Au	<	0.002300	M	Gd	<	0.000760	O	Ni	<	0.005100	M	Sn	<	0.000760				
O	B		0.003692	M	Ge	<	0.001600	M	Os	<	0.000760	O	Sr	<	0.000610				
M	Ba	<	0.001600	M	Hf	<	0.000760	n	P	<		M	Ta	<	0.000760				
O	Be	<	0.000130	M	Hg	<	0.003100	M	Pb		0.001400	M	Tb	<	0.000760				
M	Bi	<	0.000760	M	Ho	<	0.000760	M	Pd	<	0.001600	M	Te	<	0.000760				
O	Ca		0.004616	s	In	<		M	Pr	<	0.000760	M	Th	<	0.000760				
M	Cd	<	0.000760	M	Ir	<	0.000760	M	Pt	<	0.000760	O	Ti	<	0.001100				
M	Ce	<	0.000760	O	K		0.007078	M	Rb	<	0.000760	M	Tl	<	0.000760				
M	Co	<	0.000760	M	La	<	0.000760	M	Re	<	0.000760	M	Tm	<	0.000760				
O	Cr	<	0.001300	O	Li	<	0.000130	M	Rh	<	0.000760	M	U	<	0.000760				
M	Cs	<	0.000760	M	Lu	<	0.000760	M	Ru	<	0.000760	M	V	<	0.001600				
M	Cu	<	0.003800	O	Mg		0.000707	n	S	<		M	W	<	0.001600				
M	Dy	<	0.000760	O	Mn		0.000149	M	Sb	<	0.000760	M	Y	<	0.000760				
M	Er	<	0.000760	M	Mo	<	0.002300	M	Sc	<	0.000760	M	Yb	<	0.000760				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 114.82 +3 6 In(H2O)6+3

Chemical Compatibility -Soluble in HCl, HNO3, and H2SO4. Avoid neutral and basic media. Stable with most metals and inorganic anions. The oxalate, sulfide, carbonate, hydroxide and phosphate are insoluble in water.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

In Containing Samples (Preparation and Solution) -Metal (Best dissolved in HCl / HNO3); Oxide (Soluble in mineral acids); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 115 amu	1 ppt	n/a	115Sn, 99Ru16O
ICP-OES 158.583 nm	0.05 / 0.002 µg/mL	1	
ICP-OES 230.606 nm	0.1 / 0.03 µg/mL	1	Ni, Os
ICP-OES 325.609 nm	0.2 / 0.05 µg/mL	1	Mn, Mo, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 21, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 21, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

M 6041-46
MS

avantor™ | J.T.Baker®

Material No.: 9673-33
Batch No.: 23D2462010
Manufactured Date: 2023-03-22
Retest Date: 2028-03-20
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (H_2SO_4)	95.0 – 98.0 %	96.1 %
Appearance	Passes Test	Passes Test
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Substances Reducing Permanganate (as SO2)	≤ 2 ppm	< 2 ppm
Ammonium (NH_4)	≤ 1 ppm	1 ppm
Chloride (Cl)	≤ 0.1 ppm	< 0.1 ppm
Nitrate (NO_3)	≤ 0.2 ppm	< 0.1 ppm
Phosphate (PO_4)	≤ 0.5 ppm	< 0.1 ppm
Trace Impurities – Aluminum (Al)	≤ 30.0 ppb	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 4.0 ppb	< 2.0 ppb
Trace Impurities – Boron (B)	≤ 10.0 ppb	8.5 ppb
Trace Impurities – Cadmium (Cd)	≤ 2.0 ppb	< 0.3 ppb
Trace Impurities – Chromium (Cr)	≤ 6.0 ppb	< 0.4 ppb
Trace Impurities – Cobalt (Co)	≤ 0.5 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gold (Au)	≤ 10.0 ppb	0.5 ppb
Heavy Metals (as Pb)	≤ 500.0 ppb	< 100.0 ppb
Trace Impurities – Iron (Fe)	≤ 50.0 ppb	1.3 ppb
Trace Impurities – Lead (Pb)	≤ 0.5 ppb	< 0.5 ppb
Trace Impurities – Magnesium (Mg)	≤ 7.0 ppb	0.8 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	< 0.1 ppb
Trace Impurities – Nickel (Ni)	≤ 2.0 ppb	0.3 ppb
Trace Impurities – Potassium (K)	≤ 500.0 ppb	< 2.0 ppb
Trace Impurities – Selenium (Se)	≤ 50.0 ppb	< 0.1 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	31.5 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb

>>> Continued on page 2 >>>

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

avantor™ | J.T.Baker®

Material No.: 9673-33
Batch No.: 23D2462010

Test	Specification	Result
Trace Impurities - Sodium (Na)	≤ 500.0 ppb	5.4 ppb
Trace Impurities - Strontium (Sr)	≤ 5.0 ppb	< 0.2 ppb
Trace Impurities - Tin (Sn)	≤ 5.0 ppb	< 0.8 ppb
Trace Impurities - Zinc (Zn)	≤ 5.0 ppb	0.4 ppb

For Laboratory,Research,or Manufacturing Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

R 8/19/24, M60055

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

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:	IV-STOCK-12
Lot Number:	U2-MEB734294
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	10 µg/mL ea:

Barium, Beryllium,
Bismuth, Cerium,
Cobalt, Indium,
Lithium, Nickel,
Lead, Uranium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Barium, Ba	10.01 ± 0.04 µg/mL	Beryllium, Be	10.01 ± 0.05 µg/mL
Bismuth, Bi	10.01 ± 0.06 µg/mL	Cerium, Ce	10.01 ± 0.04 µg/mL
Cobalt, Co	10.01 ± 0.05 µg/mL	Indium, In	10.01 ± 0.04 µg/mL
Lead, Pb	10.00 ± 0.04 µg/mL	Lithium, Li	10.01 ± 0.04 µg/mL
Nickel, Ni	10.01 ± 0.04 µg/mL	Uranium, U	10.01 ± 0.05 µg/mL

Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ba	ICP Assay	3104a	140909
Ba	Calculated		See Sec. 4.2
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Bi	ICP Assay	3106	180815
Ce	ICP Assay	3110	160830
Ce	EDTA	928	928
Ce	Calculated		See Sec. 4.2
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Co	Calculated		See Sec. 4.2
In	ICP Assay	3124a	110516
In	EDTA	928	928
In	Calculated		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Calculated		See Sec. 4.2
Li	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Ni	Calculated		See Sec. 4.2
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Pb	Calculated		See Sec. 4.2
U	ICP Assay	traceable to 3164	R2-U689597
U	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

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

June 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

- June 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



INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

R! 08/22/24 M6058, M6059

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

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.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 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

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 06, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- September 06, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Joseph Burns
Custom VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6079 R: 9/30/24

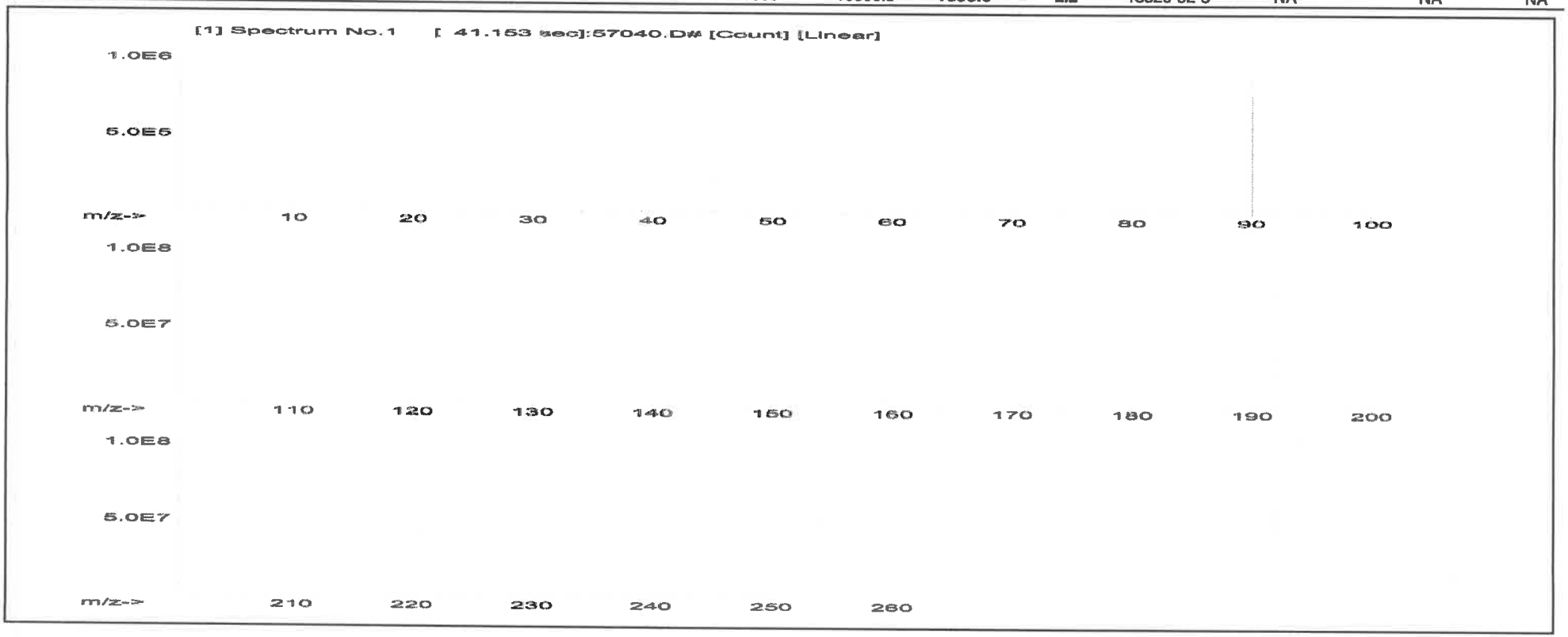
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57040**	21110221	Nitric Acid	
Lot Number:	**071423**			
Description:	**Zirconium (Zr)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	071426			
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	071423
Reviewed By:	Pedro L. Rentas	071423

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. Zirconyl chloride octahydrate (Zr)	58140	070621	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	13520-92-8	NA	NA	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	<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	T

(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).

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R -> 11/12/24

M6126

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

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

R -> 1/13/25

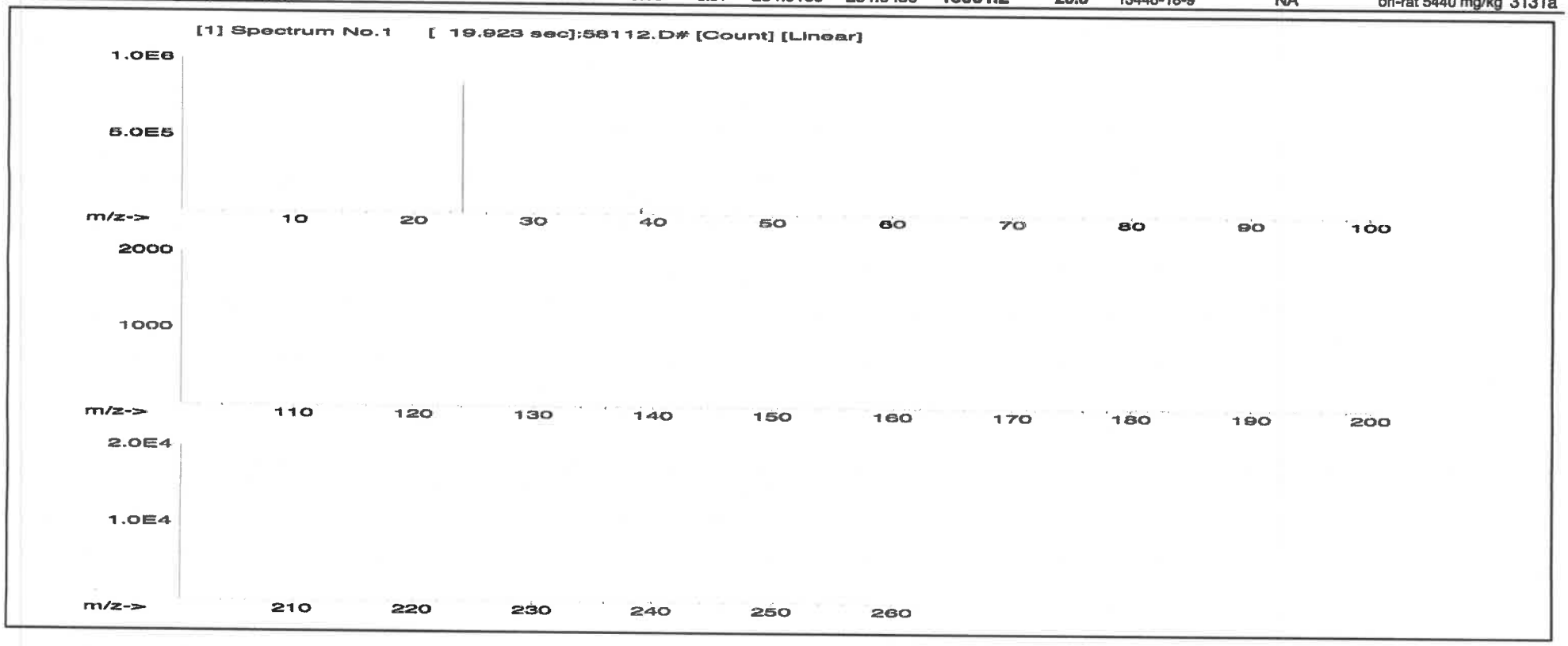
M 6127

			Lot #	
Part Number:	**58112**	**Solvent:**	24012496	Nitric Acid
Lot Number:	**112124**			
Description:	**Magnesium (Mg)**	2%	40.0 (mL)	Nitric Acid
Expiration Date:	112127			
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):	2000.07	0.100	Flask Uncertainty	

Giovanni Esposito

Formulated By:	Giovanni Esposito	112124
Reviewed By:	Pedro L. Rentas	112124

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	234.9459	**10001.2**	**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).

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	

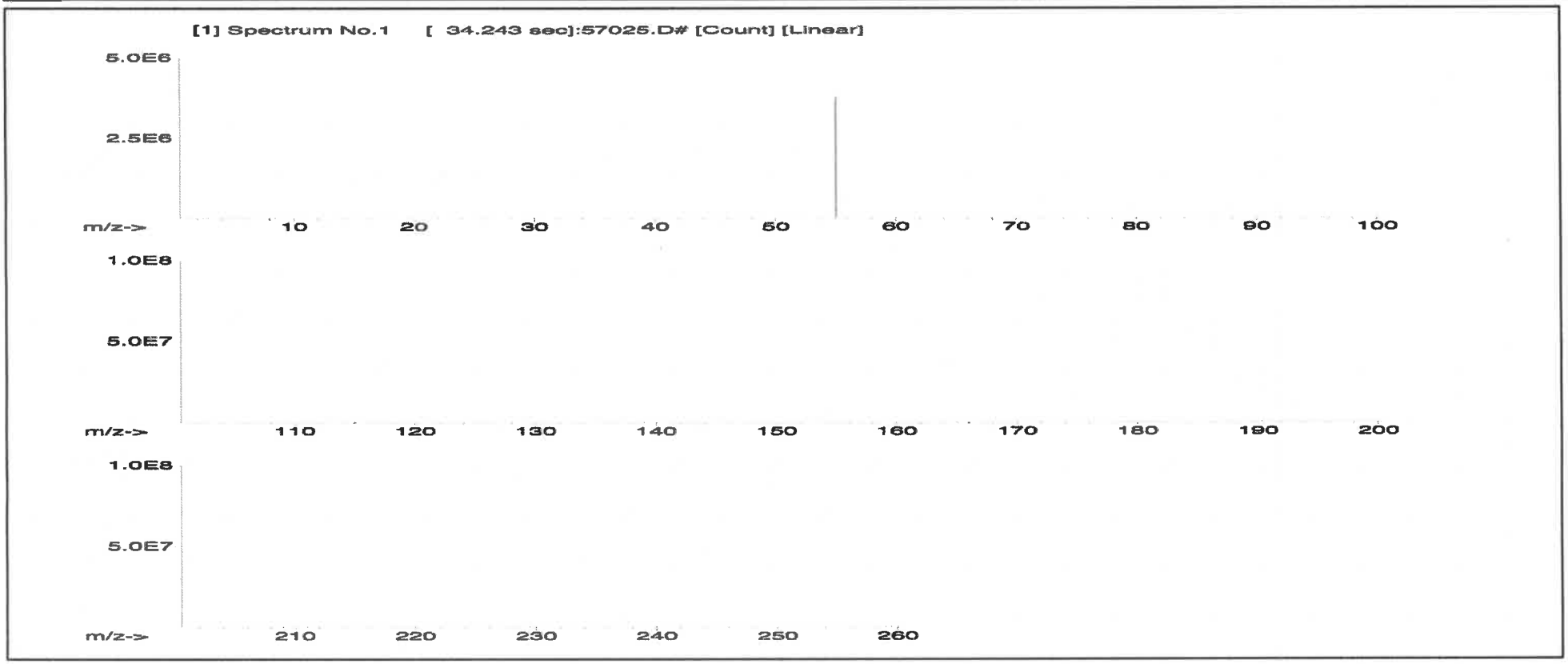
Giovanni Esposito

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).

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

M6137 R→10/3/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSI1
Lot Number:	V2-SI744713
Matrix:	tr. HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Silicon
Starting Material:	Silica
Starting Material Lot#:	1771
Starting Material Purity:	99.9981%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 6 µg/mL

Density: 1.003 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**999 ± 5 µg/mL** ICP Assay NIST SRM Traceable to 3150 Lot Number: S2-SI702546
Assay Method #2	**1000 ± 7 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2 (u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000310	M	Eu	<	0.000310	O	Na		0.001656	M	Se	<	0.022000	M	Zn	<	0.002500
M	Al		0.010787	M	Fe	<	0.027000	M	Nb	<	0.001300	s	Si	<		O	Zr	<	0.001900
M	As	<	0.001900	M	Ga	<	0.001300	M	Nd	<	0.000310	M	Sm	<	0.000310				
M	Au	<	0.000910	M	Gd	<	0.000310	M	Ni	<	0.005500	M	Sn		0.000096				
M	B		0.016180	M	Ge	<	0.001900	M	Os	<	0.000610	O	Sr		0.000092				
M	Ba		0.000096	M	Hf		0.000423	i	P	<		M	Ta		0.002542				
O	Be	<	0.000570	M	Hg	<	0.000610	M	Pb	<	0.000310	M	Tb	<	0.000310				
M	Bi	<	0.000310	M	Ho	<	0.000610	M	Pd	<	0.000610	M	Te	<	0.000910				
O	Ca		0.011557	M	In	<	0.000310	M	Pr	<	0.000310	M	Th	<	0.001900				
M	Cd	<	0.000310	M	Ir	<	0.000310	M	Pt	<	0.000310	M	Ti		0.001078				
M	Ce	<	0.000610	O	K		0.000577	M	Rb	<	0.009100	M	Tl	<	0.000310				
M	Co	<	0.001600	M	La	<	0.000310	M	Re	<	0.000310	M	Tm	<	0.000310				
M	Cr	<	0.010000	O	Li	<	0.000460	M	Rh	<	0.000310	M	U	<	0.000310				
M	Cs	<	0.000310	M	Lu	<	0.000310	M	Ru	<	0.000310	O	V	<	0.001300				
M	Cu	<	0.002500	O	Mg		0.001348	O	S	<	0.570000	M	W	<	0.001900				
M	Dy	<	0.000310	M	Mn	<	0.002500	M	Sb	<	0.000310	M	Y	<	0.000310				
M	Er	<	0.000310	M	Mo	<	0.000310	O	Sc	<	0.000590	M	Yb	<	0.000310				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 28.09 +4 6 Si(OH)x(F)y2-

Chemical Compatibility -Soluble in HCl, HF, H3PO4 H2SO4 and HNO3 as the Si(OH)x(F)y2-. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths, or high levels of transition elements unless they are fluorinated. Stable with most inorganic anions with a tendency to hydrolyze forming silicic acid (silicic acid is soluble up to ∼100 ppm in water) in all dilute acids except HF.

Stability - 2-100 ppb levels - stability unknown - (alone or mixed with all other metals) as the Si(OH)x(F)y2-. 1-10,000 ppm single element solutions as the Si(OH)x(F)y2- chemically stable for years in 2-5 % HNO3 / trace HF in a LDPE container.

Si Containing Samples (Preparation and Solution) -Metal (Soluble in 1:1:1 H2O / HF / HNO3); Oxide - SiO2, amorphic (dissolve by heating in 1:1:1 H2O / HF / HNO3); Oxide - quartz (fuse in Pt0 with Na2CO3); Geological Samples(fuse in Pt0with Na2CO3 followed by HCl solution of the fuseate); Organic Matrices containing silicates and non volatile silicon compounds (dry ash at 4500C in Pt0 and dissolve by gently warming with 1:1:1 H2O / HF / H2SO4 or fuse / ash with Na2CO3 and dissolve fuseate with HCl / H2O); Silicone Oils - dimethyl silicones depolymerize to form volatile monomer units when heated (Measure directly in alcoholic KOH / xylene mixture where sample is treated first with the KOH at 60-1000C to "unzip" the Si- O-Si polymeric structure or digest with conc. H2SO4 / H2O2 followed by cooling and dissolution of the dehydrated silica with HF.) Note that the direct analysis of silicone oils in an organic solvent will result in false high results due to high vapor pressure of volatile monomer units like hexamethylcyclotrisiloxane. The KOH forms the K2+Si(CH3)2O= salt which is not volatile at room temperature.

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 28 amu	4000 - 8000 ppt	N/A	N2, 12C16O
ICP-OES 212.412 nm	0.02/0.01 µg/mL	1	Hf, Os, Mo, Ta
ICP-OES 251.611 nm	0.012/0.003 µg/mL	1	Ta, U, Zn, Th
ICP-OES 288.158 nm	0.03/0.004 µg/mL	1	Ta, Ce, Cr, Cd, Th

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

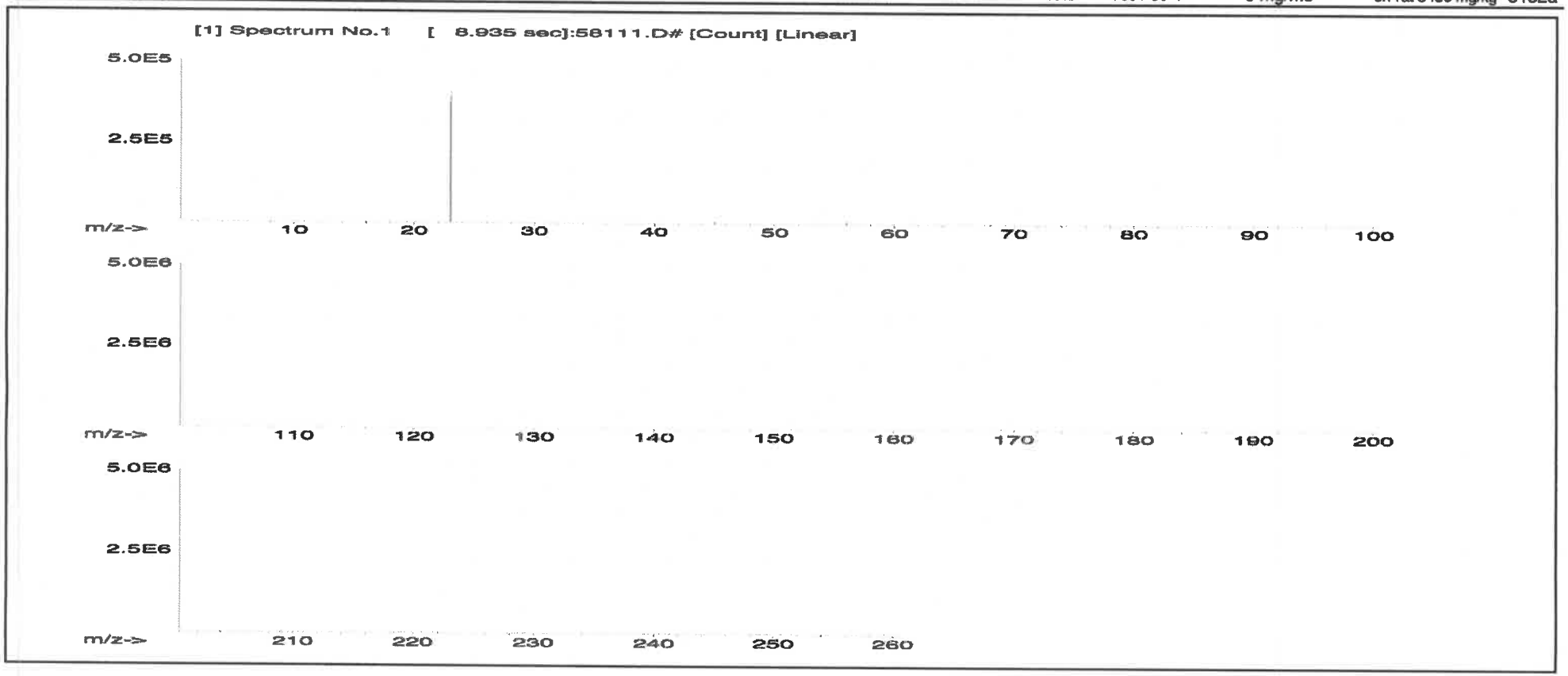
CERTIFIED WEIGHT REPORT:

R->1/13/25

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

(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

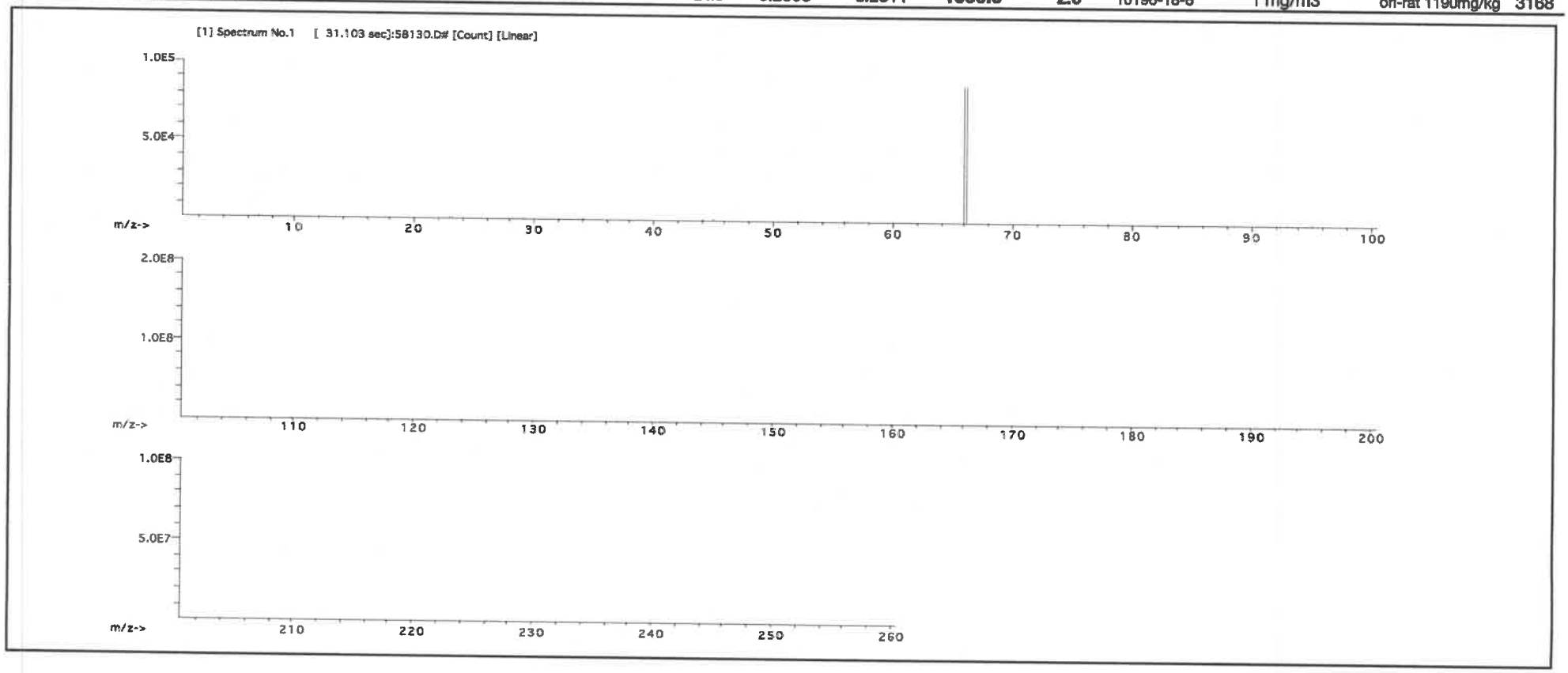
CERTIFIED WEIGHT REPORT:

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



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	T
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

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).

R : 4/20/21

QATS LABORATORY INORGANIC REFERENCE MATERIAL INITIAL CALIBRATION VERIFICATION SOLUTIONS (ICV1, ICV5, AND ICV6)

M6150

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Metals in Dilute Acidic or Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more Aqueous Inorganic Reference Materials containing various analyte concentrations. ICV1 and ICV5 are in a matrix of dilute nitric acid. ICV6 is in a matrix of dilute basic solution. **For the reference material source in reporting ICVs use "USEPA". For the reference material lot number for the ICV1, ICV5, and ICV6 solutions use "ICV1-1014", "ICV5-0415", and "ICV6-0400", respectively.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP, AA, and Cyanide colorimetric instruments, and are to be used with the CLP SOWs and revisions. The values for each element in the ICVs are listed below in µg/L (ppb) for the resulting solution(s) after the dilution of the concentrate(s) according to the following instructions. Use Class 'A' glassware to prepare the solution(s).

ICV1-1014 For ICP-AES analysis, use a 10-fold dilution by pipetting 10 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

ICV1-1014 For ICP-MS analysis, use a 50-fold dilution by pipetting 2 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.

ICV5-0415 For the cold vapor analysis of mercury by AA, use a 100-fold dilution by pipetting 1 mL of the ICV5 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v) $K_2Cr_2O_7$ and 5% (v/v) nitric acid.

ICV6-0400 For the analysis of cyanide, use a 100-fold dilution by pipetting 1 mL of the ICV6 concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from $K_3Fe(CN)_6$, Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

NOTE: USE TYPE II WATER AND HIGH-PURITY ACIDS FOR ALL DILUTIONS.

(D) *CERTIFIED CONCENTRATIONS OF QATS ICV1, ICV5, AND ICV6 SOLUTIONS*

ICV1-1014		
Element	**Concentration (µg/L) (after 10-fold dilution)**	**Concentration (µg/L) (after 50-fold dilution)**
Al	2500	500
Sb	1000	200
As	1000	200
Ba	520	100
Be	510	100
Cd	510	100
Ca	10000	2000
Cr	520	100
Co	520	100
Cu	510	100
Fe	10000	2000
Pb	1000	200
Mg	6000	1200
Mn	520	100
Ni	530	110
K	9900	2000
Se	1000	200
Ag	250	50
Na	10000	2000
Tl	1000	210
V	500	100
Zn	1000	200

ICV5-0415		ICV6-0400	
Element	**Concentration (µg/L) (after 100-fold dilution)**	**Analyte**	**Concentration (µg/L) (after 100-fold dilution)**
Hg	4.0	**CN^-**	99

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

M6151

R-> 1/15/25

Material No.: 9530-33
Batch No.: 22G2862015
Manufactured Date: 2022-06-15
Retest Date: 2027-06-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.9 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.191
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl_2)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO_4)	≤ 0.05 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO_3)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH_4)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	1.3 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	163.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.7 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	0.6 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	6 ppb

>>> Continued on page 2 >>>

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result
Trace Impurities - Lead (Pb)	≤ 1.0 ppb	< 0.5 ppb
Trace Impurities - Lithium (Li)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Magnesium (Mg)	≤ 10.0 ppb	2.9 ppb
Trace Impurities - Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities - Mercury (Hg)	≤ 0.5 ppb	0.1 ppb
Trace Impurities - Molybdenum (Mo)	≤ 10.0 ppb	< 3.0 ppb
Trace Impurities - Nickel (Ni)	≤ 4.0 ppb	< 0.3 ppb
Trace Impurities - Niobium (Nb)	≤ 1.0 ppb	0.8 ppb
Trace Impurities - Potassium (K)	≤ 9.0 ppb	< 2.0 ppb
Trace Impurities - Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities - Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities - Silver (Ag)	≤ 1.0 ppb	0.5 ppb
Trace Impurities - Sodium (Na)	≤ 100.0 ppb	2.3 ppb
Trace Impurities - Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Tantalum (Ta)	≤ 1.0 ppb	1.6 ppb
Trace Impurities - Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Tin (Sn)	≤ 5.0 ppb	4.0 ppb
Trace Impurities - Titanium (Ti)	≤ 1.0 ppb	1.5 ppb
Trace Impurities - Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Zinc (Zn)	≤ 5.0 ppb	0.8 ppb
Trace Impurities - Zirconium (Zr)	≤ 1.0 ppb	0.3 ppb

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result

For Laboratory,Research,or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

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

R→1/7/23
M6153

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:	CGSR10
Lot Number:	V2-SR745329
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Strontium
Starting Material:	Strontium Carbonate
Starting Material Lot#:	2647
Starting Material Purity:	99.9960%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10081 ± 39 µg/mL

Density: 1.030 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10059 ± 50 µg/mL**
ICP Assay NIST SRM Traceable to 3153a Lot Number: K2-SR650985

Assay Method #2 **10087 ± 26 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

- 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:

$w_i = (1/u_{char\ i})^2 / \langle\Sigma(1/(u_{char\ i})^2)$

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	<	0.000960	M	Eu	<	0.000480	O	Na		0.002964	M	Se	<	0.042000	M	Zn	0.004560
M	Al		0.003420	O	Fe		0.013225	M	Nb	<	0.000480	O	Si		0.012997	M	Zr	0.001847
M	As	<	0.007200	M	Ga	<	0.002900	M	Nd	<	0.000480	M	Sm	<	0.000480			
M	Au	<	0.003900	M	Gd	<	0.000480	O	Ni		0.001482	M	Sn	<	0.000480			
O	B	<	0.003200	M	Ge	<	0.004800	M	Os	<	0.001500	s	Sr	<				
M	Ba		0.638494	M	Hf	<	0.000480	O	P	<	0.017000	M	Ta	<	0.000480			
O	Be	<	0.000450	M	Hg	<	0.000960	M	Pb		0.010717	M	Tb	<	0.000480			
M	Bi	<	0.002000	M	Ho	<	0.000480	M	Pd	<	0.002000	M	Te	<	0.016000			
O	Ca		0.025083	M	In	<	0.008600	M	Pr		0.000547	M	Th	<	0.000480			
M	Cd	<	0.000960	M	Ir	<	0.000480	M	Pt	<	0.000480	M	Ti		0.004560			
M	Ce		0.000661	O	K		0.025083	M	Rb	<	0.003400	M	Tl	<	0.000480			
M	Co		0.001527	M	La	<	0.000480	M	Re	<	0.000480	M	Tm		0.004332			
O	Cr	<	0.004700	O	Li	<	0.005600	O	Rh	<	0.013000	M	U	<	0.000480			
M	Cs	<	0.000480	M	Lu	<	0.000480	M	Ru	<	0.000960	M	V	<	0.000960			
O	Cu	<	0.003800	O	Mg		0.001048	O	S	<	0.045000	M	W	<	0.002400			
M	Dy	<	0.000960	O	Mn		0.000319	M	Sb	<	0.009600	O	Y	<	0.001200			
M	Er	<	0.000480	M	Mo	<	0.002900	M	Sc	<	0.001500	M	Yb	<	0.000480			

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

August 26, 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 26, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor



Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

M6156

Certified Reference Material CRM

R→ 6/12/24

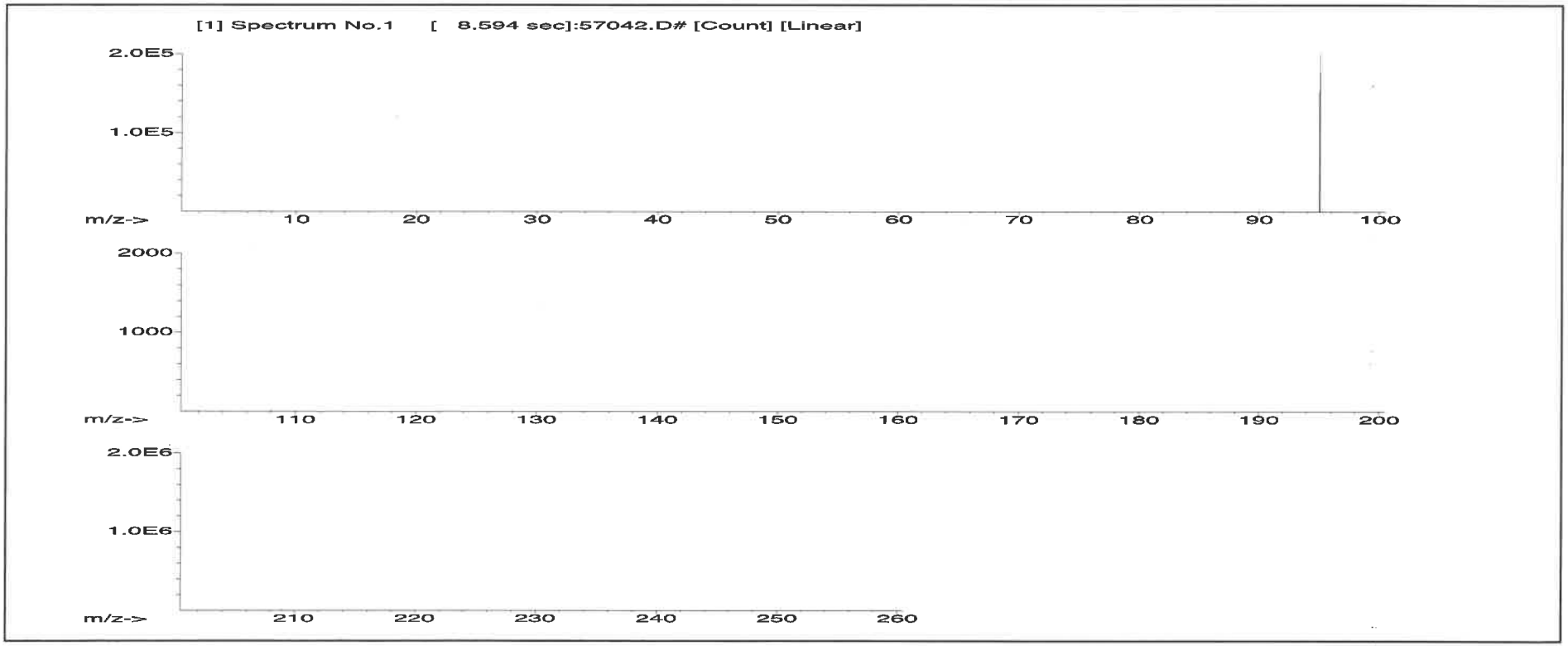
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57042**			
Lot Number:	**032123**			
Description:	**Molybdenum (Mo)**	MKBQ8597V	Ammonium hydroxide	
		0.5%	15.0 (mL)	Ammonium hydroxide
Expiration Date:	032126			
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):	3000.41	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	032123
Reviewed By:	Pedro L. Rentas	032123

	Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	**Final Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	**SDS Information** (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1.	Ammonium molybdate (Mo)	58142	112322	0.1000	300.0	0.084	1000	10001.4	**1000.0**	**2.1**	13106-76-8	5 mg(Mo)/m3	orl-rat 333 mg/kg	3134



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	T	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R-02102/2025

M-6158

Material No.: 9606-03
Batch No.: 24D1062002
Manufactured Date: 2024-03-26
Retest Date: 2029-03-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	2.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	100 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result
Trace Impurities - Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities - Potassium (K)	≤ 50 ppb	16 ppb
Trace Impurities - Silicon (Si)	≤ 50 ppb	< 10 ppb
Trace Impurities - Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Sodium (Na)	≤ 150.0 ppb	< 5.0 ppb
Trace Impurities - Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Tantalum (Ta)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Thallium (Tl)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Tin (Sn)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count - 0.5 µm and greater	≤ 60 par/ml	10 par/ml
Particle Count - 1.0 µm and greater	≤ 10 par/ml	3 par/ml

>>> Continued on page 3 >>>

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.

A: 4/11/22

Certificate of Analysis

M5738, M5739, M5740, M5741, M5742, M5743

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

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:	6020ISS
Lot Number:	S2-MEB709511
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	10 µg/mL ea:

Bismuth, Holmium,
Indium, 6-Lithium,
Rhodium, Scandium,
Terbium, Yttrium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
6-Lithium, Li6	10.00 ± 0.03 µg/mL	Bismuth, Bi	10.00 ± 0.05 µg/mL
Holmium, Ho	10.00 ± 0.05 µg/mL	Indium, In	10.00 ± 0.04 µg/mL
Rhodium, Rh	10.00 ± 0.07 µg/mL	Scandium, Sc	10.00 ± 0.04 µg/mL
Terbium, Tb	10.00 ± 0.04 µg/mL	Yttrium, Y	10.00 ± 0.04 µg/mL

Density: 1.035 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Bi	ICP Assay	3106	180815
Bi	Calculated		See Sec. 4.2
Ho	ICP Assay	3123a	090408
Ho	EDTA	928	928
In	ICP Assay	3124a	110516
In	EDTA	928	928
In	Calculated		See Sec. 4.2
Li6	Gravimetric		See Sec. 4.2
Rh	ICP Assay	3144	070619
Sc	ICP Assay	3148a	100701
Sc	EDTA	928	928
Tb	ICP Assay	3157a	100518
Tb	EDTA	928	928
Tb	Calculated		See Sec. 4.2
Y	ICP Assay	3167a	120314
Y	EDTA	928	928
Y	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

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Lithium Li6	95.6 ± 0.3
Lithium Li7	4.4 ± 0.1

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 03, 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 03, 2026

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-MS (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

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of an 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-0803" and for the ICSAB mixture use "ICSA-0803+ICSB-0803".**

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 the Contracting Officer, Ross Miller at miller.ross@epa.gov. If directed by Ross Miller, 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*

This interference check sample set is to be used to verify elemental isobaric correction factors of inductively coupled plasma-mass spectrometers (ICP-MS). This reference material set consists of two (2) concentrated solutions. The ICSA solution contains several interferent elements and species; for a complete listing refer to the CLP SOW. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be, Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for the ICP-MS ICS 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-0803, Inferferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 1% v/v HNO_3. Analyze this solution by ICP-MS.

ICSB-0803, Analytes, mixed with ICSA-0803, 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 1% v/v HNO_3. Analyze this ICSAB solution by ICP-MS.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-MS 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-MS ICSA-0803, AND ICSA-0803 MIXED WITH ICSB-0803

ICSA: M5873

ICSB: M5874

Element	CRQL	Part A (µg/L)	Lower Limit (µg/L)	Upper Limit (µg/L)	Part A +Part B (µg/L)	Lower Limit (µg/L)	Upper Limit (µg/L)
Al	20.0	[100000]			[100000]		
Sb	2.0	(1.5)	-2.5	5.5	(22.0)	18.0	26.0
As	1.0	(0.1)	-1.9	2.1	19.0	16.2	21.9
Ba	10.0	(1.2)	-18.8	21.2	(22.0)	2.0	42.0
Be	1.0	(0)	-2.0	2.0	19.0	16.2	21.9
Cd	1.0	(0.7)	-1.3	2.7	20.0	17.0	23.0
Ca	500	[100000]			[100000]		
C		[200000]			[200000]		
Cl		[1000000]			[1000000]		
Cr	2.0	(21.0)	17.0	25.0	40.0	34.0	46.0
Co	1.0	(1.0)	-1.0	3.0	20.0	17.0	23.0
Cu	2.0	(8.0)	4.0	12.0	(25.0)	21.0	29.0
Fe	200	[100000]			[100000]		
Pb	1.0	(4.0)	2.0	6.0	25.0	21.3	28.8
Mg	500	[100000]			[100000]		
Mn	1.0	(7.0)	5.0	9.0	27.0	23.0	31.1
Mo		[2000]			[2000]		
Ni	1.0	(6.0)	4.0	8.0	24.0	20.4	27.6
P		[100000]			[100000]		
K	500	[100000]			[100000]		
Se	5.0	(0.3)	-9.7	10.3	(19.0)	9.0	29.0
Ag	1.0	(0)	-2.0	2.0	18.0	15.3	20.7
Na	500	[100000]			[100000]		
S		[100000]			[100000]		
Tl	1.0	(0)	-2.0	2.0	21.0	17.9	24.2
Ti		[2000]			[2000]		
V	5.0	(0.5)	-9.5	10.5	(19.0)	9.0	29.0
Zn	5.0	(11.0)	1.0	21.0	(29.0)	19.0	39.0

[ ] Indicates analytes that do not require ICP-MS determination in the ICS.
The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 2 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.

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-MS (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

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of an 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-0803" and for the ICSAB mixture use "ICSA-0803+ICSB-0803".**

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 the Contracting Officer, Ross Miller at miller.ross@epa.gov. If directed by Ross Miller, 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*

This interference check sample set is to be used to verify elemental isobaric correction factors of inductively coupled plasma-mass spectrometers (ICP-MS). This reference material set consists of two (2) concentrated solutions. The ICSA solution contains several interferent elements and species; for a complete listing refer to the CLP SOW. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be, Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for the ICP-MS ICS 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-0803, Inferferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 1% v/v HNO_3. Analyze this solution by ICP-MS.

ICSB-0803, Analytes, mixed with ICSA-0803, 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 1% v/v HNO_3. Analyze this ICSAB solution by ICP-MS.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-MS 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-MS ICSA-0803, AND ICSA-0803 MIXED WITH ICSB-0803

ICSA: M5873

ICSB: M5874

Element	CRQL	Part A (µg/L)	Lower Limit (µg/L)	Upper Limit (µg/L)	Part A +Part B (µg/L)	Lower Limit (µg/L)	Upper Limit (µg/L)
Al	20.0	[100000]			[100000]		
Sb	2.0	(1.5)	-2.5	5.5	(22.0)	18.0	26.0
As	1.0	(0.1)	-1.9	2.1	19.0	16.2	21.9
Ba	10.0	(1.2)	-18.8	21.2	(22.0)	2.0	42.0
Be	1.0	(0)	-2.0	2.0	19.0	16.2	21.9
Cd	1.0	(0.7)	-1.3	2.7	20.0	17.0	23.0
Ca	500	[100000]			[100000]		
C		[200000]			[200000]		
Cl		[1000000]			[1000000]		
Cr	2.0	(21.0)	17.0	25.0	40.0	34.0	46.0
Co	1.0	(1.0)	-1.0	3.0	20.0	17.0	23.0
Cu	2.0	(8.0)	4.0	12.0	(25.0)	21.0	29.0
Fe	200	[100000]			[100000]		
Pb	1.0	(4.0)	2.0	6.0	25.0	21.3	28.8
Mg	500	[100000]			[100000]		
Mn	1.0	(7.0)	5.0	9.0	27.0	23.0	31.1
Mo		[2000]			[2000]		
Ni	1.0	(6.0)	4.0	8.0	24.0	20.4	27.6
P		[100000]			[100000]		
K	500	[100000]			[100000]		
Se	5.0	(0.3)	-9.7	10.3	(19.0)	9.0	29.0
Ag	1.0	(0)	-2.0	2.0	18.0	15.3	20.7
Na	500	[100000]			[100000]		
S		[100000]			[100000]		
Tl	1.0	(0)	-2.0	2.0	21.0	17.9	24.2
Ti		[2000]			[2000]		
V	5.0	(0.5)	-9.5	10.5	(19.0)	9.0	29.0
Zn	5.0	(11.0)	1.0	21.0	(29.0)	19.0	39.0

[ ] Indicates analytes that do not require ICP-MS determination in the ICS.
The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 2 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.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6030

R: 8/5/24

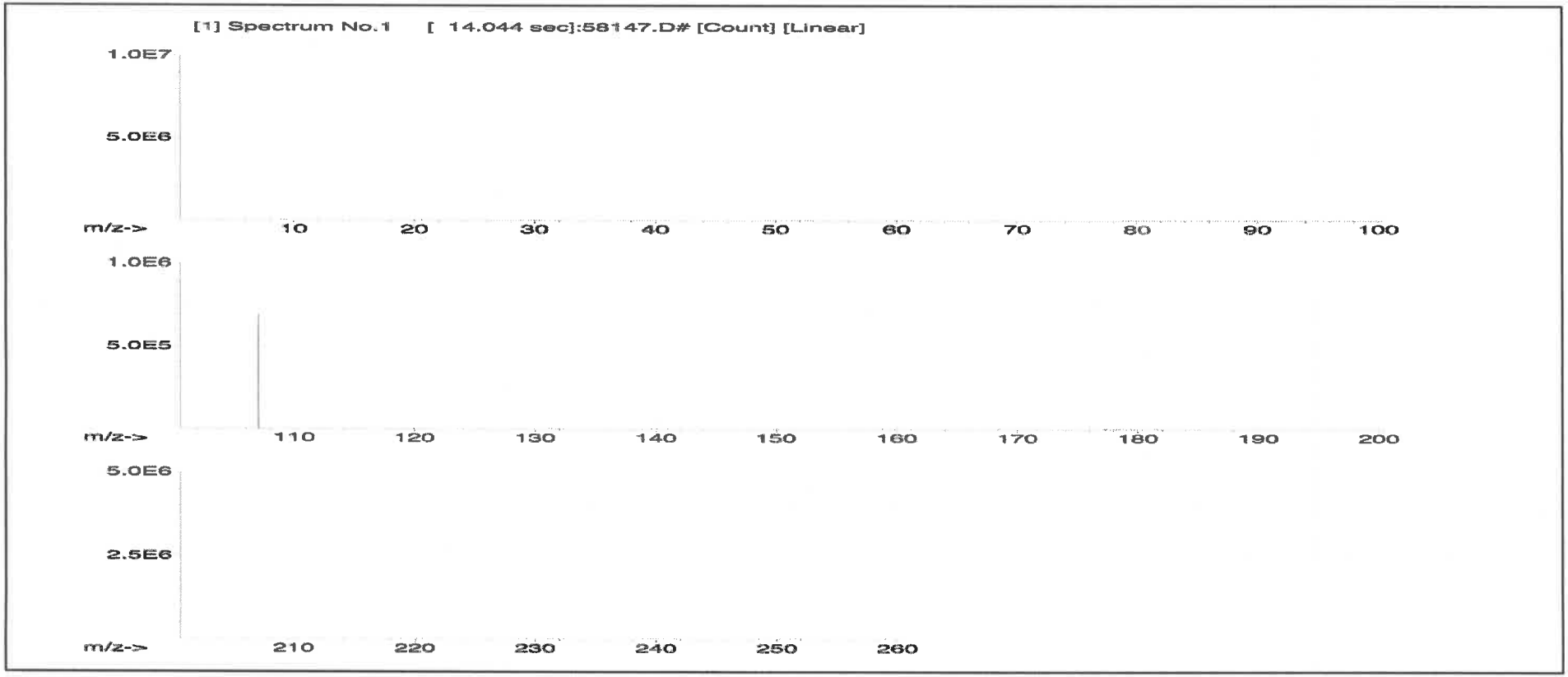
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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.
* 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

R: 10/18/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

MG146

		Lot #	Solvent:	
Part Number:	**57051**	24002546	Nitric Acid	
Lot Number:	**071724**			
Description:	**Antimony (Sb)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	071727			
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):	2000.26	0.058	Flask Uncertainty	

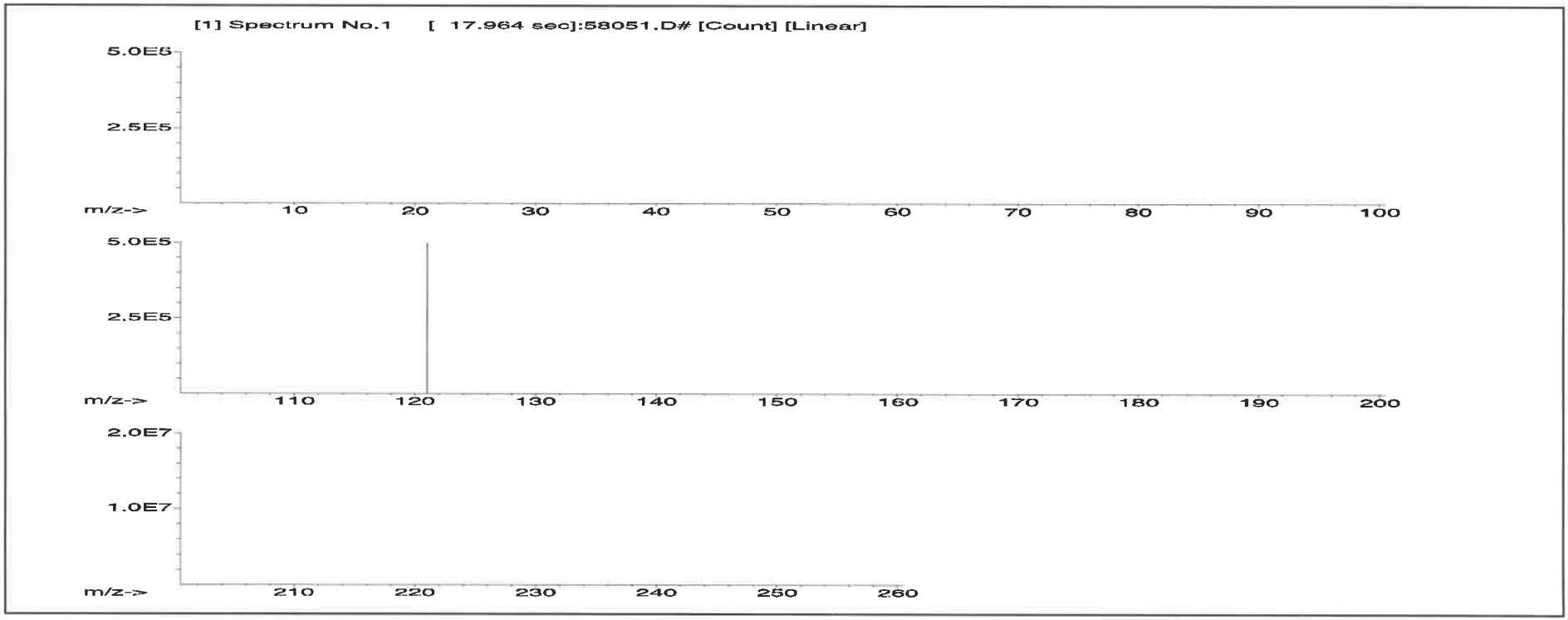
Giovanni Esposito

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.
* 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).

APTIM

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

Instructions for QATS Reference Material: *ICP-AES ICS*

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

M6152

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

APTIM

Instructions for QATS Reference Material: *ICP-AES ICS*

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

M6155

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

opened : 3/24/25

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:

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

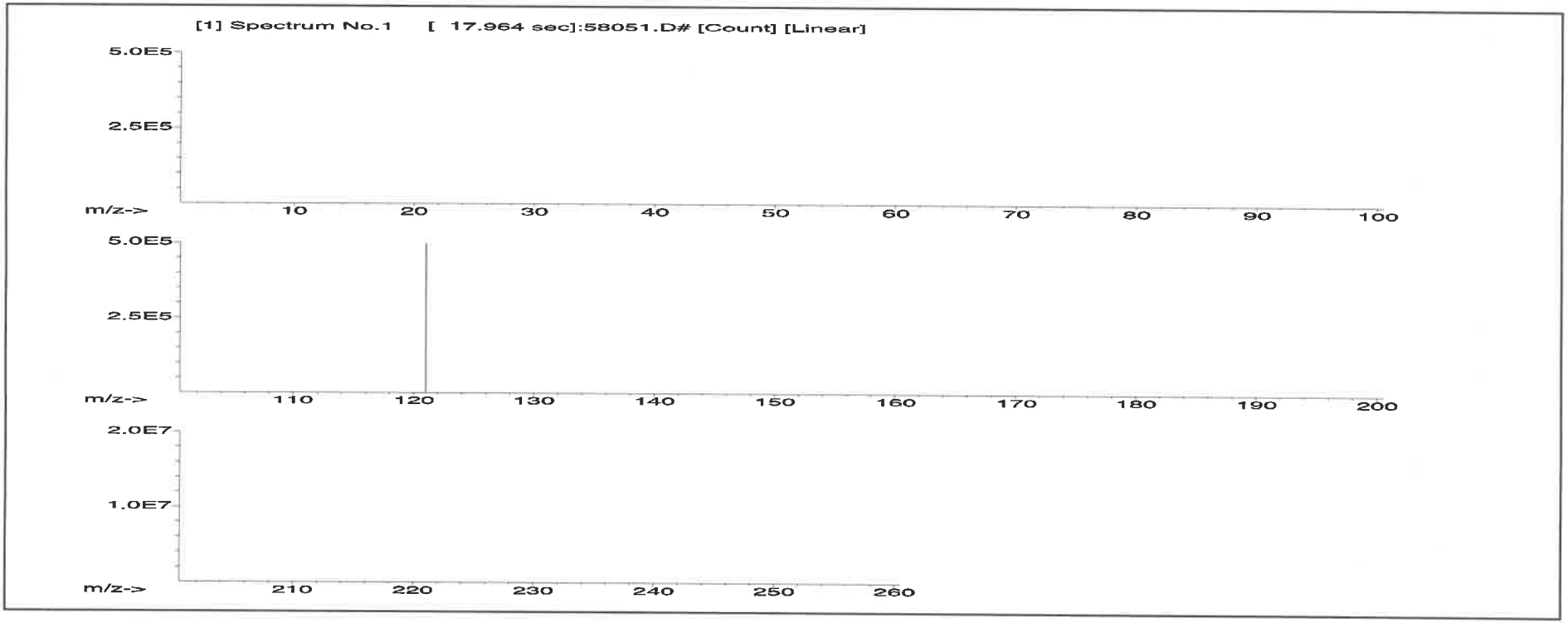
Giovanni Esposito

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.
* 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

R: 8/5/24 M6019

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

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



INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

R: 8/5/24 M6019

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

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

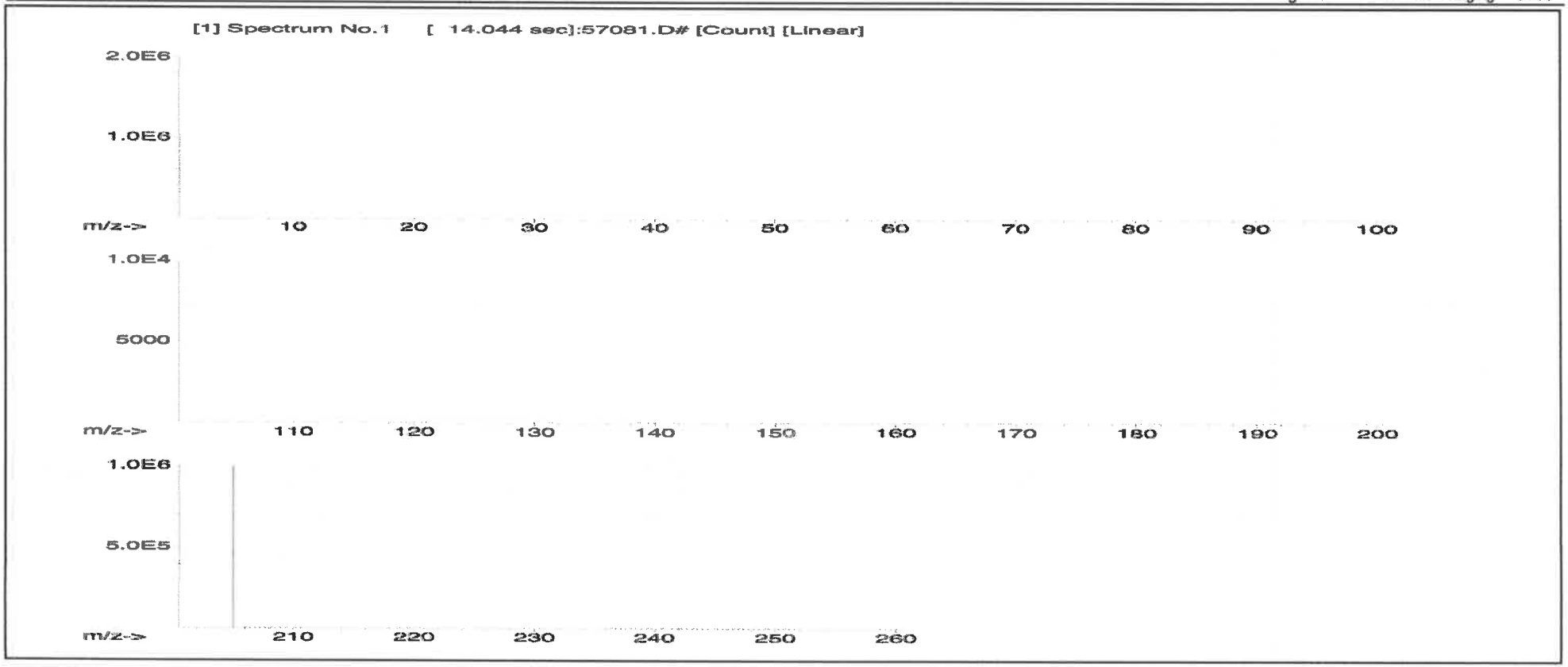
CERTIFIED WEIGHT REPORT:

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
M5545,M5546,M5547,M5548 RD:05/08/2023

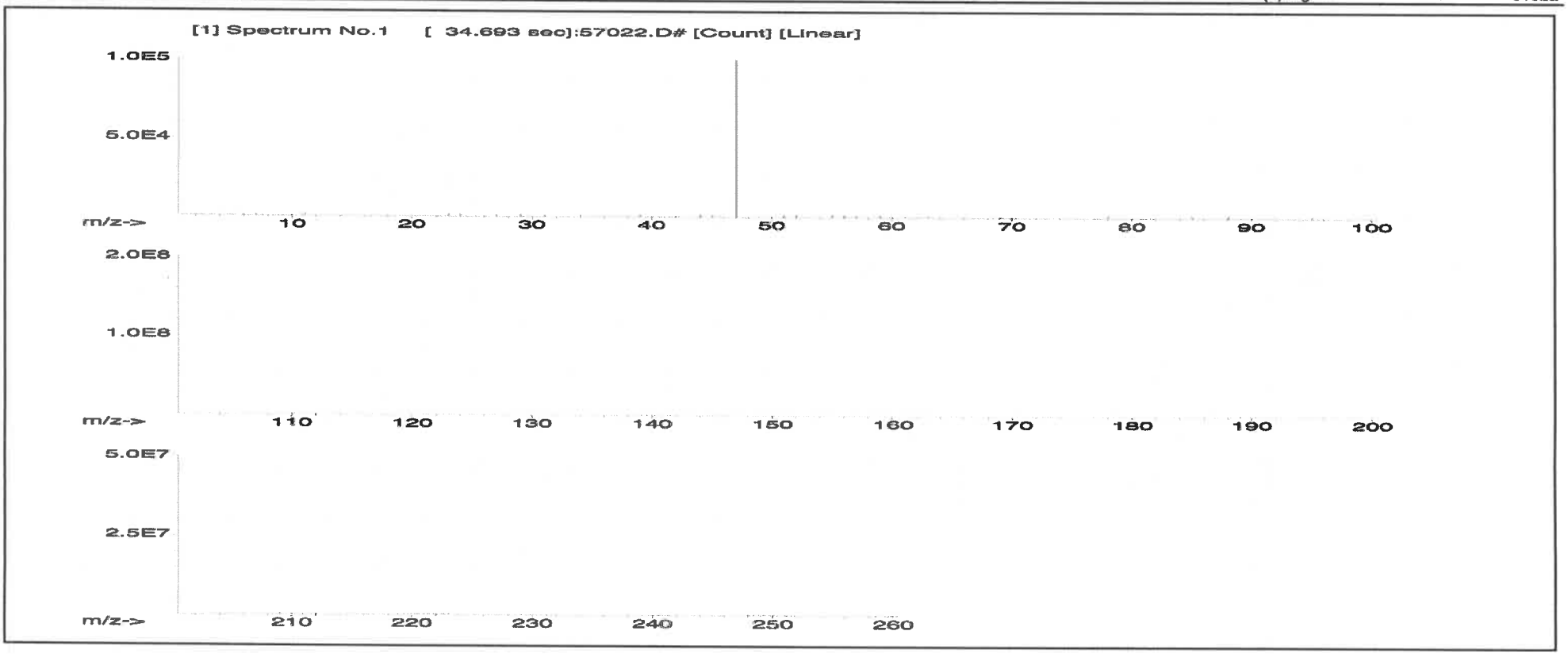
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57022**	21110221	Nitric Acid	
Lot Number:	**050223**			
Description:	**Titanium (Ti)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	050226			
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	050223
Reviewed By:	Pedro L. Rentas	050223

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 hexafluorotitanate (Ti)	58122	071122	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	16962-40-6	2.5 (F) mg/m3	NA	3162a



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	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	T	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

B: 8/13/24 M6020

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

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:	CGU1
Lot Number:	U2-U735194
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Uranium
Starting Material:	Uranyl Nitrate Hexahydrate
Starting Material Lot#:	2504
Starting Material Purity:	99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1000 ± 5 µg/mL

Density: 1.010 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **1001 ± 4 µg/mL**
ICP Assay NIST SRM traceable to 3164 Lot Number: R2-U689597

Assay Method #2 **1000 ± 5 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

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

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	<	0.001400	M	Eu	<	0.000270	M	Na		0.001811	M	Se	<	0.004800	M	Zn		0.002126
M	Al		0.000322	M	Fe		0.007481	M	Nb	<	0.000790	i	Si	<		M	Zr	<	0.000270
M	As	<	0.007300	M	Ga	<	0.000270	M	Nd	<	0.000270	M	Sm	<	0.000270				
M	Au	<	0.001400	M	Gd	<	0.000270	M	Ni		0.000905	M	Sn	<	0.120000				
M	B	<	0.017000	M	Ge	<	0.000800	M	Os	<	0.000270	M	Sr	<	0.000270				
M	Ba	<	0.003100	M	Hf	<	0.000270	i	P	<		M	Ta	<	0.000270				
M	Be	<	0.003200	M	Hg	<	0.000270	M	Pb		0.000511	M	Tb	<	0.000270				
M	Bi	<	0.003000	M	Ho	<	0.000270	M	Pd	<	0.000270	M	Te	<	0.001100				
M	Ca	<	0.048000	M	In	<	0.001400	M	Pr	<	0.000270	M	Th		0.000200				
M	Cd	<	0.000270	M	Ir	<	0.000270	M	Pt	<	0.000270	M	Ti	<	0.000530				
M	Ce	<	0.000270	O	K	<	0.047000	M	Rb	<	0.000660	M	Tl	<	0.000270				
M	Co	<	0.000270	M	La		0.000322	M	Re	<	0.000270	M	Tm	<	0.000270				
M	Cr		0.001732	M	Li	<	0.001100	M	Rh	<	0.000270	s	U	<					
M	Cs	<	0.003500	M	Lu	<	0.000270	M	Ru	<	0.000270	M	V	<	0.003500				
M	Cu	<	0.005600	M	Mg		0.000240	i	S	<		M	W	<	0.000270				
M	Dy	<	0.000270	M	Mn	<	0.006500	M	Sb	<	0.000270	M	Y	<	0.000270				
M	Er	<	0.000270	M	Mo		0.000433	M	Sc	<	0.000800	M	Yb	<	0.000270				

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 - 238.03 +6 8 UO22+(uranyl)
Chemical Compatibility - Soluble in HCl and HNO3. Avoid H3PO4. H2SO4 and HF matrices should not be a problem depending upon [U]. Although the UO22+ ion is distinctly basic, any U+4 will precipitate in basic media. UO22+salts are generally soluble in water and UO22+ is stable with most metals and inorganic anions. The uranyl phosphate is insoluble in water. UF4 and UF6 are water soluble.
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.
U Containing Samples (Preparation and Solution) -Metal (Dissolves rapidly in HCl and HNO3); Oxide (Soluble in HNO3); Ores (Digest for 1-2 hours with 1 gram of ore to 30 mL 1:1 HNO3. Silica insolubles are removed by filtration after bringing the sample to fumes with conc. H2SO4.)
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 238 amu	2 ppt	N/A	206Pb16O2
ICP-OES 263.553 nm	0.3 / 0.01 µg/mL	1	Ce, Ir, Th, Rh, W, Zr, Ta, Ti, V, Hf, Fe, Re, Ru
ICP-OES 367.007 nm	0.3 / 0.02 µg/mL	1	Th, Ce
ICP-OES 385.958 nm	0.3 / 0.01 µg/mL	1	Th, Fe

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 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

- August 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

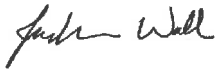
Certificate Prepared By:

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

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	

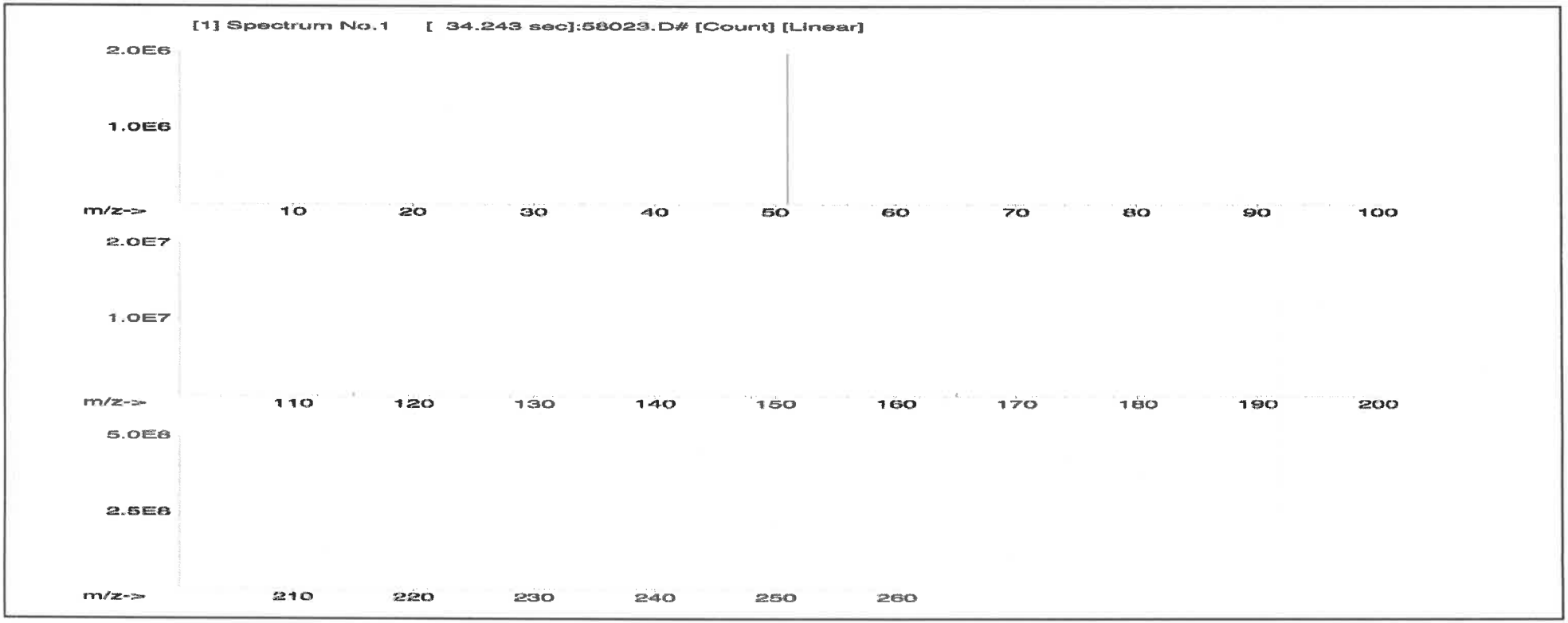
Aleah O'Brady

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

Alliance TECHNICAL GROUP

284 Sheffield Street, Mountainside, NJ 07092
(908) 789-8900 • Fax (908) 789-8922
www.chemtech.net

ALLIANCE PROJECT NO.
QUOTE NO. Q17446
COC Number 2046610

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Gannett Fleming
ADDRESS: 1010 Adams Ave
CITY: Audobon STATE: PA ZIP: 19405
ATTENTION: Joe Krupansky
PHONE: 610-301-8342 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: Amtrak Replacement of SB
PROJECT NO.: 950000818 LOCATION: Kearny, NJ
PROJECT MANAGER: Joe Krupansky
e-mail: QAQC@BEMSYS.com
PHONE: 610-301-8342 FAX:

CLIENT BILLING INFORMATION

BILL TO: Alliance PO#:
ADDRESS: 284 Sheffield St
CITY Mountainside STATE: NJ ZIP: 07093
ATTENTION: Samaila Beasly PHONE: 9087883148

DATA TURNAROUND INFORMATION

FAX (RUSH) _____ DAYS*
HARDCOPY (DATA PACKAGE): 10 DAYS*
EDD: 10 DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

☐ Level 1 (Results Only) ☐ Level 4 (QC + Full Raw Data)
☐ Level 2 (Results + QC) ☒ NJ Reduced ☐ US EPA CLP
☐ Level 3 (Results + QC + Raw Data) ☐ NYS ASP A ☐ NYS ASP B ☐ Other
☐ EDD FORMAT BEM EDD

ANALYSIS

1. PCBs
2. TAL Metals
3. TCL-VOC+10
4. Cr(VI) Cr(III)
5. TCL-SVOCs-BNA-20
6. EPH
7. RCRA
8. TCLP
9.

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	PRESERVATIVES 1	2	3	4	5	6	7	8	9	COMMENTS
1.	B-158-GW01	GW		X	4/5/25	2300	8	X	X	X	X	X	X				
2.	B-149-SB01	S		X	4/5/25	2025	9	X	X	X	X	X	X	X	X		
3.	B-149-SB02	S		X	4/6/25	110	7										
4.	B-149-GW01	GW		X	4/6/25	345	8	X	X	X	X	X	X				
5.	~~EB~~																
6.	~~TB~~				~~NA~~	~~NA~~				~~X~~							
7.	EB_2025.4.7	WQ			4/7/25	830	9	X	X	X	X	X	X				
8.	TB-2025.4.7	-			-	-				X							
9.																	
10.																	

PRESERVATIVES: ← Specify Preservatives — A-HCl, B-HN03, C-H2SO4, D-NaOH, E-ICE, F-OTHER

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:
1. Natali Bucca	4-7-25 1040	1.
2.		2.
3.		3.

Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP 2.1 °C
Comments: B-149-SB02 has limited volume IP-6m #1 "Adjust factor +1"

Page _____ of

CLIENT: ☐ Hand Delivered ☐ Other

Shipment Complete ☐ YES ☐ NO

Copyright © 2024

WHITE - ALLIANCE COPY FOR RETURN TO CLIENT YELLOW - ALLIANCE COPY PINK - SAMPLER COPY

284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

QA Control Code: A2070148

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1746 PORT06 **Order Date :** 4/7/2025 12:00:00 PM **Project Mgr :**
Client Name : Portal Partners Tri-Venture **Project Name :** Amtrak Sawtooth Bridges 2 **Report Type :** NJ Reduced
Client Contact : Joseph Krupansky **Receive DateTime :** 4/7/2025 10:40:00 AM **EDD Type :** EXCEL NJCLEANUP
Invoice Name : Portal Partners Tri-Venture **Purchase Order :** **Hard Copy Date :**
Invoice Contact : Joseph Krupansky **Date Signoff :**

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1746-01	B-149-SB01	Solid	04/05/2025	20:25					
					VOC-TCLVOA-10		8260D		10 Bus. Days
Q1746-03	B-149-SB02	Solid	04/06/2025	01:10					
					VOC-TCLVOA-10		8260D		10 Bus. Days
Q1746-05	B-158-GW01	Water	04/05/2025	23:00					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q1746-06	B-149-GW01	Water	~~04/05/2025~~ 04/06/2025 yg 04/06/25	03:45					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q1746-07	EB-2025-4-7	Water	04/07/2025	08:30					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days
Q1746-08	TB-2025-4-7	Water	04/07/2025	00:00					
					VOC-TCLVOA-10		8260-Low		10 Bus. Days

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID :	Q1746 PORT06	**Order Date :**	4/7/2025 12:00:00 PM	**Project Mgr :**	
Client Name :	Portal Partners Tri-Venture	**Project Name :**	Amtrak Sawtooth Bridges 2	**Report Type :**	NJ Reduced
Client Contact :	Joseph Krupansky	**Receive DateTime :**	4/7/2025 10:40:00 AM	**EDD Type :**	EXCEL NJCLEANUP
Invoice Name :	Portal Partners Tri-Venture	**Purchase Order :**		**Hard Copy Date :**	
Invoice Contact :	Joseph Krupansky			**Date Signoff :**	

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES

Relinguished By : _____

Date / Time : 4-7-25 1255

Received By : _____

Date / Time : 4.7.25 12:55

Storage Area : **VOA Refridgerator Room**