Alliance TECHNICAL GROUP

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

DATA REPORTING QUALIFIERS- INORGANIC

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

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

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LAB CHRONICLE

OrderID:	Q3368	**OrderDate:**	10/16/2025 2:05:00 PM
Client:	Aramark Uniforms	**Project:**	Monthly 2025
Contact:	Tom Dikos	**Location:**	D41

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q3368-06	**OUTSIDE-DUMPSTER**	**TCLP**			**10/16/25**			**10/16/25**
			TCLP Mercury	7470A		10/22/25	10/23/25	
			TCLPMetals Group2	6010D		10/22/25	10/23/25	
Q3368-07	**PRESS-SLUDGE**	**TCLP**			**10/16/25**			**10/16/25**
			TCLP Mercury	7470A		10/22/25	10/23/25	
			TCLPMetals Group2	6010D		10/22/25	10/23/25	

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Hit Summary Sheet
SW-846

SDG No.: Q3368 **Order ID:** Q3368

Client: Aramark Uniforms **Project ID:** Monthly 2025

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : OUTSIDE-DUMPSTER								
Q3368-06	OUTSIDE-DUMPSTER	TCLP	Barium	581		72.8	500	ug/L
Q3368-06	OUTSIDE-DUMPSTER	TCLP	Cadmium	5.80	J	2.50	30.0	ug/L
Q3368-06	OUTSIDE-DUMPSTER	TCLP	Copper	39.5	J	23.0	100	ug/L
Q3368-06	OUTSIDE-DUMPSTER	TCLP	Lead	25.4	J	11.5	60.0	ug/L
Q3368-06	OUTSIDE-DUMPSTER	TCLP	Nickel	49.9	J	15.3	200	ug/L
Q3368-06	OUTSIDE-DUMPSTER	TCLP	Zinc	2740		83.3	200	ug/L
Client ID : PRESS-SLUDGE								
Q3368-07	PRESS-SLUDGE	TCLP	Barium	631		72.8	500	ug/L
Q3368-07	PRESS-SLUDGE	TCLP	Cadmium	3.52	J	2.50	30.0	ug/L
Q3368-07	PRESS-SLUDGE	TCLP	Copper	50.7	J	23.0	100	ug/L
Q3368-07	PRESS-SLUDGE	TCLP	Lead	58.2	J	11.5	60.0	ug/L
Q3368-07	PRESS-SLUDGE	TCLP	Nickel	119	J	15.3	200	ug/L
Q3368-07	PRESS-SLUDGE	TCLP	Zinc	5800		83.3	200	ug/L

SAMPLE DATA

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Report of Analysis

Client:	Aramark Uniforms	Date Collected:	10/16/25
Project:	Monthly 2025	Date Received:	10/16/25
Client Sample ID:	OUTSIDE-DUMPSTER	SDG No.:	Q3368
Lab Sample ID:	Q3368-06	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	25.6	U	1	25.6	100	ug/L	10/22/25 12:30	10/23/25 15:17	6010D	SW3010A
7440-39-3	Barium	581	N	1	72.8	500	ug/L	10/22/25 12:30	10/23/25 15:17	6010D	SW3010A
7440-43-9	Cadmium	5.80	J	1	2.50	30.0	ug/L	10/22/25 12:30	10/23/25 15:17	6010D	SW3010A
7440-47-3	Chromium	10.6	U	1	10.6	50.0	ug/L	10/22/25 12:30	10/23/25 15:17	6010D	SW3010A
7440-50-8	Copper	39.5	J	1	23.0	100	ug/L	10/22/25 12:30	10/23/25 15:17	6010D	SW3010A
7439-92-1	Lead	25.4	J	1	11.5	60.0	ug/L	10/22/25 12:30	10/23/25 15:17	6010D	SW3010A
7439-97-6	Mercury	0.76	U	1	0.76	2.00	ug/L	10/22/25 13:30	10/23/25 08:38	7470A	7470A
7440-02-0	Nickel	49.9	J	1	15.3	200	ug/L	10/22/25 12:30	10/23/25 15:17	6010D	SW3010A
7782-49-2	Selenium	48.2	U	1	48.2	100	ug/L	10/22/25 12:30	10/23/25 15:17	6010D	SW3010A
7440-22-4	Silver	8.10	U	1	8.10	50.0	ug/L	10/22/25 12:30	10/23/25 15:17	6010D	SW3010A
7440-66-6	Zinc	2740		1	83.3	200	ug/L	10/22/25 12:30	10/23/25 15:17	6010D	SW3010A

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

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Report of Analysis

Client:	Aramark Uniforms	Date Collected:	10/16/25
Project:	Monthly 2025	Date Received:	10/16/25
Client Sample ID:	PRESS-SLUDGE	SDG No.:	Q3368
Lab Sample ID:	Q3368-07	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	25.6	U	1	25.6	100	ug/L	10/22/25 12:30	10/23/25 15:21	6010D	SW3010A
7440-39-3	Barium	631	N	1	72.8	500	ug/L	10/22/25 12:30	10/23/25 15:21	6010D	SW3010A
7440-43-9	Cadmium	3.52	J	1	2.50	30.0	ug/L	10/22/25 12:30	10/23/25 15:21	6010D	SW3010A
7440-47-3	Chromium	10.6	U	1	10.6	50.0	ug/L	10/22/25 12:30	10/23/25 15:21	6010D	SW3010A
7440-50-8	Copper	50.7	J	1	23.0	100	ug/L	10/22/25 12:30	10/23/25 15:21	6010D	SW3010A
7439-92-1	Lead	58.2	J	1	11.5	60.0	ug/L	10/22/25 12:30	10/23/25 15:21	6010D	SW3010A
7439-97-6	Mercury	0.76	U	1	0.76	2.00	ug/L	10/22/25 13:30	10/23/25 08:41	7470A	7470A
7440-02-0	Nickel	119	J	1	15.3	200	ug/L	10/22/25 12:30	10/23/25 15:21	6010D	SW3010A
7782-49-2	Selenium	48.2	U	1	48.2	100	ug/L	10/22/25 12:30	10/23/25 15:21	6010D	SW3010A
7440-22-4	Silver	8.10	U	1	8.10	50.0	ug/L	10/22/25 12:30	10/23/25 15:21	6010D	SW3010A
7440-66-6	Zinc	5800		1	83.3	200	ug/L	10/22/25 12:30	10/23/25 15:21	6010D	SW3010A

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LOQ = Limit of Quantitation
MDL = Method Detection Limit
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D = Dilution
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E = Indicates the reported value is estimated because of the presence of interference.
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N =Spiked sample recovery not within control limits

METAL CALIBRATION DATA

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV84	Mercury	3.99	4.0	100	90 - 110	CV	10/23/2025	08:15	LB137620

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: PLASMA-PURE

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV75	Mercury	5.03	5.0	101	90 - 110	CV	10/23/2025	08:22	LB137620
CCV76	Mercury	5.05	5.0	101	90 - 110	CV	10/23/2025	08:50	LB137620
CCV77	Mercury	4.90	5.0	98	90 - 110	CV	10/23/2025	09:18	LB137620
CCV78	Mercury	5.05	5.0	101	90 - 110	CV	10/23/2025	09:36	LB137620

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
ICV01	Arsenic	3870	4000	97	90 - 110	P	10/23/2025	13:05	LB137630
	Barium	7690	8000	96	90 - 110	P	10/23/2025	13:05	LB137630
	Cadmium	2050	2000	103	90 - 110	P	10/23/2025	13:05	LB137630
	Chromium	800	800	100	90 - 110	P	10/23/2025	13:05	LB137630
	Copper	995	1000	100	90 - 110	P	10/23/2025	13:05	LB137630
	Lead	3900	4000	98	90 - 110	P	10/23/2025	13:05	LB137630
	Nickel	1940	2000	97	90 - 110	P	10/23/2025	13:05	LB137630
	Selenium	3910	4000	98	90 - 110	P	10/23/2025	13:05	LB137630
	Silver	1010	1000	101	90 - 110	P	10/23/2025	13:05	LB137630
	Zinc	1970	2000	99	90 - 110	P	10/23/2025	13:05	LB137630

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
LLICV01	Arsenic	22.1	20.0	110	80 - 120	P	10/23/2025	13:14	LB137630
	Barium	98.7	100	99	80 - 120	P	10/23/2025	13:14	LB137630
	Cadmium	5.95	6.0	99	80 - 120	P	10/23/2025	13:14	LB137630
	Chromium	11.0	10.0	110	80 - 120	P	10/23/2025	13:14	LB137630
	Copper	22.5	20.0	113	80 - 120	P	10/23/2025	13:14	LB137630
	Lead	13.2	12.0	110	80 - 120	P	10/23/2025	13:14	LB137630
	Nickel	39.8	40.0	100	80 - 120	P	10/23/2025	13:14	LB137630
	Selenium	23.6	20.0	118	80 - 120	P	10/23/2025	13:14	LB137630
	Silver	10.7	10.0	106	80 - 120	P	10/23/2025	13:14	LB137630
	Zinc	43.5	40.0	109	80 - 120	P	10/23/2025	13:14	LB137630

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV01	Arsenic	5250	5000	105	90 - 110	P	10/23/2025	13:52	LB137630
	Barium	9900	10000	99	90 - 110	P	10/23/2025	13:52	LB137630
	Cadmium	2580	2500	103	90 - 110	P	10/23/2025	13:52	LB137630
	Chromium	1060	1000	106	90 - 110	P	10/23/2025	13:52	LB137630
	Copper	1300	1250	104	90 - 110	P	10/23/2025	13:52	LB137630
	Lead	5160	5000	103	90 - 110	P	10/23/2025	13:52	LB137630
	Nickel	2580	2500	103	90 - 110	P	10/23/2025	13:52	LB137630
	Selenium	5330	5000	107	90 - 110	P	10/23/2025	13:52	LB137630
	Silver	1300	1250	104	90 - 110	P	10/23/2025	13:52	LB137630
	Zinc	2620	2500	105	90 - 110	P	10/23/2025	13:52	LB137630
CCV02	Arsenic	5240	5000	105	90 - 110	P	10/23/2025	15:04	LB137630
	Barium	10600	10000	106	90 - 110	P	10/23/2025	15:04	LB137630
	Cadmium	2630	2500	105	90 - 110	P	10/23/2025	15:04	LB137630
	Chromium	1050	1000	105	90 - 110	P	10/23/2025	15:04	LB137630
	Copper	1310	1250	105	90 - 110	P	10/23/2025	15:04	LB137630
	Lead	5230	5000	105	90 - 110	P	10/23/2025	15:04	LB137630
	Nickel	2610	2500	104	90 - 110	P	10/23/2025	15:04	LB137630
	Selenium	5210	5000	104	90 - 110	P	10/23/2025	15:04	LB137630
	Silver	1300	1250	104	90 - 110	P	10/23/2025	15:04	LB137630
	Zinc	2610	2500	104	90 - 110	P	10/23/2025	15:04	LB137630
CCV03	Arsenic	4960	5000	99	90 - 110	P	10/23/2025	15:56	LB137630
	Barium	9590	10000	96	90 - 110	P	10/23/2025	15:56	LB137630
	Cadmium	2520	2500	101	90 - 110	P	10/23/2025	15:56	LB137630
	Chromium	1030	1000	103	90 - 110	P	10/23/2025	15:56	LB137630
	Copper	1240	1250	99	90 - 110	P	10/23/2025	15:56	LB137630
	Lead	5020	5000	100	90 - 110	P	10/23/2025	15:56	LB137630
	Nickel	2490	2500	100	90 - 110	P	10/23/2025	15:56	LB137630
	Selenium	4960	5000	99	90 - 110	P	10/23/2025	15:56	LB137630
	Silver	1230	1250	99	90 - 110	P	10/23/2025	15:56	LB137630
	Zinc	2480	2500	99	90 - 110	P	10/23/2025	15:56	LB137630
CCV04	Arsenic	4960	5000	99	90 - 110	P	10/23/2025	16:43	LB137630
	Barium	9850	10000	98	90 - 110	P	10/23/2025	16:43	LB137630
	Cadmium	2520	2500	101	90 - 110	P	10/23/2025	16:43	LB137630
	Chromium	1000	1000	100	90 - 110	P	10/23/2025	16:43	LB137630

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV04	Copper	1240	1250	99	90 - 110	P	10/23/2025	16:43	LB137630
	Lead	5020	5000	100	90 - 110	P	10/23/2025	16:43	LB137630
	Nickel	2490	2500	100	90 - 110	P	10/23/2025	16:43	LB137630
	Selenium	4920	5000	98	90 - 110	P	10/23/2025	16:43	LB137630
	Silver	1220	1250	98	90 - 110	P	10/23/2025	16:43	LB137630
	Zinc	2450	2500	98	90 - 110	P	10/23/2025	16:43	LB137630
CCV05	Arsenic	5210	5000	104	90 - 110	P	10/23/2025	17:21	LB137630
	Barium	10300	10000	103	90 - 110	P	10/23/2025	17:21	LB137630
	Cadmium	2640	2500	105	90 - 110	P	10/23/2025	17:21	LB137630
	Chromium	967	1000	97	90 - 110	P	10/23/2025	17:21	LB137630
	Copper	1300	1250	104	90 - 110	P	10/23/2025	17:21	LB137630
	Lead	5250	5000	105	90 - 110	P	10/23/2025	17:21	LB137630
	Nickel	2610	2500	104	90 - 110	P	10/23/2025	17:21	LB137630
	Selenium	5180	5000	104	90 - 110	P	10/23/2025	17:21	LB137630
	Silver	1290	1250	103	90 - 110	P	10/23/2025	17:21	LB137630
	Zinc	2600	2500	104	90 - 110	P	10/23/2025	17:21	LB137630
CCV06	Arsenic	5210	5000	104	90 - 110	P	10/23/2025	18:11	LB137630
	Barium	10000	10000	100	90 - 110	P	10/23/2025	18:11	LB137630
	Cadmium	2670	2500	107	90 - 110	P	10/23/2025	18:11	LB137630
	Chromium	987	1000	99	90 - 110	P	10/23/2025	18:11	LB137630
	Copper	1310	1250	105	90 - 110	P	10/23/2025	18:11	LB137630
	Lead	5320	5000	106	90 - 110	P	10/23/2025	18:11	LB137630
	Nickel	2630	2500	105	90 - 110	P	10/23/2025	18:11	LB137630
	Selenium	5190	5000	104	90 - 110	P	10/23/2025	18:11	LB137630
	Silver	1320	1250	105	90 - 110	P	10/23/2025	18:11	LB137630
	Zinc	2630	2500	105	90 - 110	P	10/23/2025	18:11	LB137630
CCV07	Arsenic	5030	5000	101	90 - 110	P	10/23/2025	18:59	LB137630
	Barium	9590	10000	96	90 - 110	P	10/23/2025	18:59	LB137630
	Cadmium	2530	2500	101	90 - 110	P	10/23/2025	18:59	LB137630
	Chromium	952	1000	95	90 - 110	P	10/23/2025	18:59	LB137630
	Copper	1250	1250	100	90 - 110	P	10/23/2025	18:59	LB137630
	Lead	5060	5000	101	90 - 110	P	10/23/2025	18:59	LB137630
	Nickel	2490	2500	100	90 - 110	P	10/23/2025	18:59	LB137630
	Selenium	5090	5000	102	90 - 110	P	10/23/2025	18:59	LB137630

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV07	Silver	1280	1250	102	90 - 110	P	10/23/2025	18:59	LB137630
	Zinc	2550	2500	102	90 - 110	P	10/23/2025	18:59	LB137630
CCV08	Arsenic	5200	5000	104	90 - 110	P	10/23/2025	19:48	LB137630
	Barium	9920	10000	99	90 - 110	P	10/23/2025	19:48	LB137630
	Cadmium	2670	2500	107	90 - 110	P	10/23/2025	19:48	LB137630
	Chromium	999	1000	100	90 - 110	P	10/23/2025	19:48	LB137630
	Copper	1300	1250	104	90 - 110	P	10/23/2025	19:48	LB137630
	Lead	5320	5000	106	90 - 110	P	10/23/2025	19:48	LB137630
	Nickel	2620	2500	105	90 - 110	P	10/23/2025	19:48	LB137630
	Selenium	5190	5000	104	90 - 110	P	10/23/2025	19:48	LB137630
	Silver	1300	1250	104	90 - 110	P	10/23/2025	19:48	LB137630
	Zinc	2610	2500	104	90 - 110	P	10/23/2025	19:48	LB137630
CCV09	Arsenic	5320	5000	106	90 - 110	P	10/23/2025	20:39	LB137630
	Barium	9990	10000	100	90 - 110	P	10/23/2025	20:39	LB137630
	Cadmium	2690	2500	108	90 - 110	P	10/23/2025	20:39	LB137630
	Chromium	1000	1000	100	90 - 110	P	10/23/2025	20:39	LB137630
	Copper	1320	1250	105	90 - 110	P	10/23/2025	20:39	LB137630
	Lead	5380	5000	108	90 - 110	P	10/23/2025	20:39	LB137630
	Nickel	2650	2500	106	90 - 110	P	10/23/2025	20:39	LB137630
	Selenium	5360	5000	107	90 - 110	P	10/23/2025	20:39	LB137630
	Silver	1320	1250	106	90 - 110	P	10/23/2025	20:39	LB137630
	Zinc	2650	2500	106	90 - 110	P	10/23/2025	20:39	LB137630
CCV10	Arsenic	5010	5000	100	90 - 110	P	10/23/2025	21:30	LB137630
	Barium	9490	10000	95	90 - 110	P	10/23/2025	21:30	LB137630
	Cadmium	2570	2500	103	90 - 110	P	10/23/2025	21:30	LB137630
	Chromium	962	1000	96	90 - 110	P	10/23/2025	21:30	LB137630
	Copper	1250	1250	100	90 - 110	P	10/23/2025	21:30	LB137630
	Lead	5110	5000	102	90 - 110	P	10/23/2025	21:30	LB137630
	Nickel	2510	2500	100	90 - 110	P	10/23/2025	21:30	LB137630
	Selenium	5040	5000	101	90 - 110	P	10/23/2025	21:30	LB137630
	Silver	1280	1250	102	90 - 110	P	10/23/2025	21:30	LB137630
	Zinc	2530	2500	101	90 - 110	P	10/23/2025	21:30	LB137630
CCV11	Arsenic	4980	5000	100	90 - 110	P	10/23/2025	22:20	LB137630
	Barium	9350	10000	94	90 - 110	P	10/23/2025	22:20	LB137630

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV11	Cadmium	2590	2500	104	90 - 110	P	10/23/2025	22:20	LB137630
	Chromium	951	1000	95	90 - 110	P	10/23/2025	22:20	LB137630
	Copper	1250	1250	100	90 - 110	P	10/23/2025	22:20	LB137630
	Lead	5160	5000	103	90 - 110	P	10/23/2025	22:20	LB137630
	Nickel	2530	2500	101	90 - 110	P	10/23/2025	22:20	LB137630
	Selenium	4940	5000	99	90 - 110	P	10/23/2025	22:20	LB137630
	Silver	1230	1250	99	90 - 110	P	10/23/2025	22:20	LB137630
	Zinc	2450	2500	98	90 - 110	P	10/23/2025	22:20	LB137630
CCV12	Arsenic	4920	5000	98	90 - 110	P	10/23/2025	22:33	LB137630
	Barium	9070	10000	91	90 - 110	P	10/23/2025	22:33	LB137630
	Cadmium	2540	2500	102	90 - 110	P	10/23/2025	22:33	LB137630
	Chromium	932	1000	93	90 - 110	P	10/23/2025	22:33	LB137630
	Copper	1230	1250	98	90 - 110	P	10/23/2025	22:33	LB137630
	Lead	5070	5000	101	90 - 110	P	10/23/2025	22:33	LB137630
	Nickel	2470	2500	99	90 - 110	P	10/23/2025	22:33	LB137630
	Selenium	4930	5000	99	90 - 110	P	10/23/2025	22:33	LB137630
	Silver	1220	1250	98	90 - 110	P	10/23/2025	22:33	LB137630
	Zinc	2410	2500	96	90 - 110	P	10/23/2025	22:33	LB137630

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Metals

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CRDL STANDARD FOR AA & ICP

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRA	Mercury	0.22	0.2	110	70 - 130	CV	10/23/2025	08:27	LB137620
CRI01	Arsenic	22.0	20.0	110	65 - 135	P	10/23/2025	13:24	LB137630
	Barium	92.8	100	93	65 - 135	P	10/23/2025	13:24	LB137630
	Cadmium	5.69	6.0	95	65 - 135	P	10/23/2025	13:24	LB137630
	Chromium	10.2	10.0	102	65 - 135	P	10/23/2025	13:24	LB137630
	Copper	21.1	20.0	106	65 - 135	P	10/23/2025	13:24	LB137630
	Lead	10.8	12.0	90	65 - 135	P	10/23/2025	13:24	LB137630
	Nickel	38.9	40.0	97	65 - 135	P	10/23/2025	13:24	LB137630
	Selenium	19.5	20.0	98	65 - 135	P	10/23/2025	13:24	LB137630
	Silver	10.2	10.0	102	65 - 135	P	10/23/2025	13:24	LB137630
	Zinc	42.6	40.0	106	65 - 135	P	10/23/2025	13:24	LB137630

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB84	Mercury	0.076	+/-0.2	U	0.20	CV	10/23/2025	08:18	LB137620

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB75	Mercury	0.076	+/-0.2	U	0.20	CV	10/23/2025	08:24	LB137620
CCB76	Mercury	0.076	+/-0.2	U	0.20	CV	10/23/2025	08:52	LB137620
CCB77	Mercury	0.076	+/-0.2	U	0.20	CV	10/23/2025	09:20	LB137620
CCB78	Mercury	0.076	+/-0.2	U	0.20	CV	10/23/2025	09:38	LB137620

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Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Arsenic	5.12	+/-10	U	20.0	P	10/23/2025	13:20	LB137630
	Barium	14.6	+/-50	U	100	P	10/23/2025	13:20	LB137630
	Cadmium	0.50	+/-3	U	6.00	P	10/23/2025	13:20	LB137630
	Chromium	2.12	+/-5	U	10.0	P	10/23/2025	13:20	LB137630
	Copper	4.60	+/-10	U	20.0	P	10/23/2025	13:20	LB137630
	Lead	2.30	+/-6	U	12.0	P	10/23/2025	13:20	LB137630
	Nickel	6.19	+/-20	J	40.0	P	10/23/2025	13:20	LB137630
	Selenium	9.64	+/-10	U	20.0	P	10/23/2025	13:20	LB137630
	Silver	1.62	+/-5	U	10.0	P	10/23/2025	13:20	LB137630
	Zinc	16.7	+/-20	U	40.0	P	10/23/2025	13:20	LB137630

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Arsenic	5.12	+/-10	U	20.0	P	10/23/2025	13:57	LB137630
	Barium	14.6	+/-50	U	100	P	10/23/2025	13:57	LB137630
	Cadmium	0.50	+/-3	U	6.00	P	10/23/2025	13:57	LB137630
	Chromium	2.12	+/-5	U	10.0	P	10/23/2025	13:57	LB137630
	Copper	4.60	+/-10	U	20.0	P	10/23/2025	13:57	LB137630
	Lead	2.30	+/-6	U	12.0	P	10/23/2025	13:57	LB137630
	Nickel	3.06	+/-20	U	40.0	P	10/23/2025	13:57	LB137630
	Selenium	9.64	+/-10	U	20.0	P	10/23/2025	13:57	LB137630
	Silver	1.62	+/-5	U	10.0	P	10/23/2025	13:57	LB137630
	Zinc	16.7	+/-20	U	40.0	P	10/23/2025	13:57	LB137630
CCB02	Arsenic	5.12	+/-10	U	20.0	P	10/23/2025	15:08	LB137630
	Barium	14.6	+/-50	U	100	P	10/23/2025	15:08	LB137630
	Cadmium	0.50	+/-3	U	6.00	P	10/23/2025	15:08	LB137630
	Chromium	2.12	+/-5	U	10.0	P	10/23/2025	15:08	LB137630
	Copper	4.60	+/-10	U	20.0	P	10/23/2025	15:08	LB137630
	Lead	2.30	+/-6	U	12.0	P	10/23/2025	15:08	LB137630
	Nickel	3.06	+/-20	U	40.0	P	10/23/2025	15:08	LB137630
	Selenium	9.64	+/-10	U	20.0	P	10/23/2025	15:08	LB137630
	Silver	1.62	+/-5	U	10.0	P	10/23/2025	15:08	LB137630
	Zinc	16.7	+/-20	U	40.0	P	10/23/2025	15:08	LB137630
CCB03	Arsenic	5.12	+/-10	U	20.0	P	10/23/2025	16:11	LB137630
	Barium	14.6	+/-50	U	100	P	10/23/2025	16:11	LB137630
	Cadmium	0.50	+/-3	U	6.00	P	10/23/2025	16:11	LB137630
	Chromium	2.12	+/-5	U	10.0	P	10/23/2025	16:11	LB137630
	Copper	4.60	+/-10	U	20.0	P	10/23/2025	16:11	LB137630
	Lead	2.30	+/-6	U	12.0	P	10/23/2025	16:11	LB137630
	Nickel	3.06	+/-20	U	40.0	P	10/23/2025	16:11	LB137630
	Selenium	9.64	+/-10	U	20.0	P	10/23/2025	16:11	LB137630
	Silver	1.62	+/-5	U	10.0	P	10/23/2025	16:11	LB137630
	Zinc	16.7	+/-20	U	40.0	P	10/23/2025	16:11	LB137630
CCB04	Arsenic	5.12	+/-10	U	20.0	P	10/23/2025	16:47	LB137630
	Barium	14.6	+/-50	U	100	P	10/23/2025	16:47	LB137630
	Cadmium	0.50	+/-3	U	6.00	P	10/23/2025	16:47	LB137630
	Chromium	2.12	+/-5	U	10.0	P	10/23/2025	16:47	LB137630
	Copper	4.60	+/-10	U	20.0	P	10/23/2025	16:47	LB137630
	Lead	2.30	+/-6	U	12.0	P	10/23/2025	16:47	LB137630
	Nickel	3.06	+/-20	U	40.0	P	10/23/2025	16:47	LB137630
	Selenium	9.64	+/-10	U	20.0	P	10/23/2025	16:47	LB137630
	Silver	1.62	+/-5	U	10.0	P	10/23/2025	16:47	LB137630

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Zinc	16.7	+/-20	U	40.0	P	10/23/2025	16:47	LB137630
CCB05	Arsenic	5.12	+/-10	U	20.0	P	10/23/2025	17:25	LB137630
	Barium	14.6	+/-50	U	100	P	10/23/2025	17:25	LB137630
	Cadmium	0.50	+/-3	U	6.00	P	10/23/2025	17:25	LB137630
	Chromium	2.12	+/-5	U	10.0	P	10/23/2025	17:25	LB137630
	Copper	4.60	+/-10	U	20.0	P	10/23/2025	17:25	LB137630
	Lead	2.30	+/-6	U	12.0	P	10/23/2025	17:25	LB137630
	Nickel	3.06	+/-20	U	40.0	P	10/23/2025	17:25	LB137630
	Selenium	9.64	+/-10	U	20.0	P	10/23/2025	17:25	LB137630
	Silver	1.62	+/-5	U	10.0	P	10/23/2025	17:25	LB137630
	Zinc	16.7	+/-20	U	40.0	P	10/23/2025	17:25	LB137630
CCB06	Arsenic	5.12	+/-10	U	20.0	P	10/23/2025	18:15	LB137630
	Barium	14.6	+/-50	U	100	P	10/23/2025	18:15	LB137630
	Cadmium	0.50	+/-3	U	6.00	P	10/23/2025	18:15	LB137630
	Chromium	2.12	+/-5	U	10.0	P	10/23/2025	18:15	LB137630
	Copper	4.60	+/-10	U	20.0	P	10/23/2025	18:15	LB137630
	Lead	2.30	+/-6	U	12.0	P	10/23/2025	18:15	LB137630
	Nickel	3.06	+/-20	U	40.0	P	10/23/2025	18:15	LB137630
	Selenium	9.64	+/-10	U	20.0	P	10/23/2025	18:15	LB137630
	Silver	1.62	+/-5	U	10.0	P	10/23/2025	18:15	LB137630
	Zinc	16.7	+/-20	U	40.0	P	10/23/2025	18:15	LB137630
CCB07	Arsenic	5.12	+/-10	U	20.0	P	10/23/2025	19:04	LB137630
	Barium	14.6	+/-50	U	100	P	10/23/2025	19:04	LB137630
	Cadmium	0.50	+/-3	U	6.00	P	10/23/2025	19:04	LB137630
	Chromium	2.12	+/-5	U	10.0	P	10/23/2025	19:04	LB137630
	Copper	4.60	+/-10	U	20.0	P	10/23/2025	19:04	LB137630
	Lead	2.30	+/-6	U	12.0	P	10/23/2025	19:04	LB137630
	Nickel	3.06	+/-20	U	40.0	P	10/23/2025	19:04	LB137630
	Selenium	9.64	+/-10	U	20.0	P	10/23/2025	19:04	LB137630
	Silver	1.62	+/-5	U	10.0	P	10/23/2025	19:04	LB137630
	Zinc	16.7	+/-20	U	40.0	P	10/23/2025	19:04	LB137630
CCB08	Arsenic	5.12	+/-10	U	20.0	P	10/23/2025	19:52	LB137630
	Barium	14.6	+/-50	U	100	P	10/23/2025	19:52	LB137630
	Cadmium	0.50	+/-3	U	6.00	P	10/23/2025	19:52	LB137630
	Chromium	2.12	+/-5	U	10.0	P	10/23/2025	19:52	LB137630
	Copper	4.60	+/-10	U	20.0	P	10/23/2025	19:52	LB137630
	Lead	2.30	+/-6	U	12.0	P	10/23/2025	19:52	LB137630
	Nickel	3.06	+/-20	U	40.0	P	10/23/2025	19:52	LB137630
	Selenium	9.64	+/-10	U	20.0	P	10/23/2025	19:52	LB137630

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB08	Silver	1.62	+/-5	U	10.0	P	10/23/2025	19:52	LB137630
	Zinc	16.7	+/-20	U	40.0	P	10/23/2025	19:52	LB137630
CCB09	Arsenic	5.12	+/-10	U	20.0	P	10/23/2025	20:43	LB137630
	Barium	14.6	+/-50	U	100	P	10/23/2025	20:43	LB137630
	Cadmium	0.50	+/-3	U	6.00	P	10/23/2025	20:43	LB137630
	Chromium	2.12	+/-5	U	10.0	P	10/23/2025	20:43	LB137630
	Copper	4.60	+/-10	U	20.0	P	10/23/2025	20:43	LB137630
	Lead	2.30	+/-6	U	12.0	P	10/23/2025	20:43	LB137630
	Nickel	3.06	+/-20	U	40.0	P	10/23/2025	20:43	LB137630
	Selenium	9.64	+/-10	U	20.0	P	10/23/2025	20:43	LB137630
	Silver	1.62	+/-5	U	10.0	P	10/23/2025	20:43	LB137630
	Zinc	16.7	+/-20	U	40.0	P	10/23/2025	20:43	LB137630
CCB10	Arsenic	5.12	+/-10	U	20.0	P	10/23/2025	21:34	LB137630
	Barium	14.6	+/-50	U	100	P	10/23/2025	21:34	LB137630
	Cadmium	0.50	+/-3	U	6.00	P	10/23/2025	21:34	LB137630
	Chromium	2.12	+/-5	U	10.0	P	10/23/2025	21:34	LB137630
	Copper	4.60	+/-10	U	20.0	P	10/23/2025	21:34	LB137630
	Lead	2.30	+/-6	U	12.0	P	10/23/2025	21:34	LB137630
	Nickel	3.06	+/-20	U	40.0	P	10/23/2025	21:34	LB137630
	Selenium	9.64	+/-10	U	20.0	P	10/23/2025	21:34	LB137630
	Silver	1.62	+/-5	U	10.0	P	10/23/2025	21:34	LB137630
	Zinc	16.7	+/-20	U	40.0	P	10/23/2025	21:34	LB137630
CCB11	Arsenic	5.12	+/-10	U	20.0	P	10/23/2025	22:24	LB137630
	Barium	14.6	+/-50	U	100	P	10/23/2025	22:24	LB137630
	Cadmium	0.50	+/-3	U	6.00	P	10/23/2025	22:24	LB137630
	Chromium	2.12	+/-5	U	10.0	P	10/23/2025	22:24	LB137630
	Copper	4.60	+/-10	U	20.0	P	10/23/2025	22:24	LB137630
	Lead	2.30	+/-6	U	12.0	P	10/23/2025	22:24	LB137630
	Nickel	3.06	+/-20	U	40.0	P	10/23/2025	22:24	LB137630
	Selenium	9.64	+/-10	U	20.0	P	10/23/2025	22:24	LB137630
	Silver	1.62	+/-5	U	10.0	P	10/23/2025	22:24	LB137630
	Zinc	16.7	+/-20	U	40.0	P	10/23/2025	22:24	LB137630
CCB12	Arsenic	5.12	+/-10	U	20.0	P	10/23/2025	22:37	LB137630
	Barium	14.6	+/-50	U	100	P	10/23/2025	22:37	LB137630
	Cadmium	0.50	+/-3	U	6.00	P	10/23/2025	22:37	LB137630
	Chromium	2.12	+/-5	U	10.0	P	10/23/2025	22:37	LB137630
	Copper	4.60	+/-10	U	20.0	P	10/23/2025	22:37	LB137630
	Lead	2.30	+/-6	U	12.0	P	10/23/2025	22:37	LB137630
	Nickel	3.06	+/-20	U	40.0	P	10/23/2025	22:37	LB137630

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB12	Selenium	9.64	+/-10	U	20.0	P	10/23/2025	22:37	LB137630
	Silver	1.62	+/-5	U	10.0	P	10/23/2025	22:37	LB137630
	Zinc	16.7	+/-20	U	40.0	P	10/23/2025	22:37	LB137630

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PREPARATION BLANK SUMMARY

Client: Aramark Uniforms **SDG No.:** Q3368

Instrument: CV1

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB170172TB		**WATER**		**Batch Number:**	**PB170219**		**Prep Date:**	**10/22/2025**	
	Mercury	0.76	<2	U	2.00	CV	10/23/2025	09:25	LB137620
Sample ID	**Analyte**	**Result (ug/L)**	**Acceptance Limit**	**Conc Qual**	**CRQL ug/L**	**M**	**Analysis Date**	**Analysis Time**	**Run**
PB170219BL		**WATER**		**Batch Number:**	**PB170219**		**Prep Date:**	**10/22/2025**	
	Mercury	0.076	<0.2	U	0.20	CV	10/23/2025	08:34	LB137620

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PREPARATION BLANK SUMMARY

Client: Aramark Uniforms **SDG No.:** Q3368

Instrument: P4

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB170214BL		**WATER**		**Batch Number:**	**PB170214**		**Prep Date:**	**10/22/2025**	
	Arsenic	25.6	<50	U	100	P	10/23/2025	19:27	LB137630
	Barium	72.8	<250	U	500	P	10/23/2025	19:27	LB137630
	Cadmium	2.50	<15	U	30.0	P	10/23/2025	19:27	LB137630
	Chromium	10.6	<25	U	50.0	P	10/23/2025	19:27	LB137630
	Copper	23.0	<50	U	100	P	10/23/2025	19:27	LB137630
	Lead	11.5	<30	U	60.0	P	10/23/2025	19:27	LB137630
	Nickel	15.3	<100	U	200	P	10/23/2025	19:27	LB137630
	Selenium	48.2	<50	U	100	P	10/23/2025	19:27	LB137630
	Silver	8.10	<25	U	50.0	P	10/23/2025	19:27	LB137630
	Zinc	83.3	<100	U	200	P	10/23/2025	19:27	LB137630

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB170172TB		**WATER**		**Batch Number:**	**PB170214**		**Prep Date:**	**10/22/2025**	
	Arsenic	25.6	<50	U	100	P	10/23/2025	19:36	LB137630
	Barium	72.8	<250	U	500	P	10/23/2025	19:36	LB137630
	Cadmium	2.50	<15	U	30.0	P	10/23/2025	19:36	LB137630
	Chromium	10.6	<25	U	50.0	P	10/23/2025	19:36	LB137630
	Copper	23.0	<50	U	100	P	10/23/2025	19:36	LB137630
	Lead	11.5	<30	U	60.0	P	10/23/2025	19:36	LB137630
	Nickel	15.3	<100	U	200	P	10/23/2025	19:36	LB137630
	Selenium	48.2	<50	U	100	P	10/23/2025	19:36	LB137630
	Silver	8.10	<25	U	50.0	P	10/23/2025	19:36	LB137630
	Zinc	83.3	<100	U	200	P	10/23/2025	19:36	LB137630

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INTERFERENCE CHECK SAMPLE

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

ICS Source: EPA **Instrument ID:** P4

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Low Limit (ug/L)	High Limit (ug/L)	Analysis Date	Analysis Time	Run Number
ICSA01	Arsenic	8.83			-20	20	10/23/2025	13:28	LB137630
	Barium	2.45	6.0	41	-94	106	10/23/2025	13:28	LB137630
	Cadmium	-0.071	1.0	7	-5	7	10/23/2025	13:28	LB137630
	Chromium	48.5	52.0	93	42	62	10/23/2025	13:28	LB137630
	Copper	12.3	2.0	615	-18	22	10/23/2025	13:28	LB137630
	Lead	-2.09			-12	12	10/23/2025	13:28	LB137630
	Nickel	3.96	2.0	198	-38	42	10/23/2025	13:28	LB137630
	Selenium	4.51			-20	20	10/23/2025	13:28	LB137630
	Silver	-2.45			-10	10	10/23/2025	13:28	LB137630
	Zinc	3.55			-40	40	10/23/2025	13:28	LB137630
ICSAB01	Arsenic	107	104	103	88.4	120	10/23/2025	13:39	LB137630
	Barium	483	537	90	437	637	10/23/2025	13:39	LB137630
	Cadmium	994	972	102	826	1120	10/23/2025	13:39	LB137630
	Chromium	550	542	102	460	624	10/23/2025	13:39	LB137630
	Copper	485	511	95	434	588	10/23/2025	13:39	LB137630
	Lead	46.0	49.0	94	37	61	10/23/2025	13:39	LB137630
	Nickel	993	954	104	810	1100	10/23/2025	13:39	LB137630
	Selenium	55.7	46.0	121	26	66	10/23/2025	13:39	LB137630
	Silver	206	201	102	170	232	10/23/2025	13:39	LB137630
	Zinc	1030	952	108	809	1095	10/23/2025	13:39	LB137630

METAL
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metals
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MATRIX SPIKE SUMMARY

client: Aramark Uniforms **level:** low **sdg no.:** Q3368

contract: ARAM01 **lab code:** ACE

matrix: Water **sample id:** Q3412-04 **client id:** TP-6MS

Percent Solids for Sample: NA **Spiked ID:** Q3412-04MS **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	4030		100	U	4000	101		P
Barium	ug/L	75 - 125	2020		515		1000	151	N	P
Cadmium	ug/L	75 - 125	1000		30.0	U	1000	100		P
Chromium	ug/L	75 - 125	1880		50.0	U	2000	94		P
Copper	ug/L	75 - 125	1530		29.1	J	1500	100		P
Lead	ug/L	75 - 125	4870		67.3		5000	96		P
Mercury	ug/L	75 - 125	38.2		2.00	U	40.0	96		CV
Nickel	ug/L	75 - 125	2500		200	U	2500	100		P
Selenium	ug/L	75 - 125	10000		100	U	10000	100		P
Silver	ug/L	75 - 125	346		50.0	U	380	91		P
Zinc	ug/L	75 - 125	1280		124	J	1000	116		P

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metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: Aramark Uniforms **level:** low **sdg no.:** Q3368

contract: ARAM01 **lab code:** ACE

matrix: Water **sample id:** Q3412-04 **client id:** TP-6MSD

Percent Solids for Sample: NA **Spiked ID:** Q3412-04MSD **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	3940		100	U	4000	98		P
Barium	ug/L	75 - 125	1950		515		1000	144	N	P
Cadmium	ug/L	75 - 125	974		30.0	U	1000	97		P
Chromium	ug/L	75 - 125	1830		50.0	U	2000	92		P
Copper	ug/L	75 - 125	1480		29.1	J	1500	97		P
Lead	ug/L	75 - 125	4720		67.3		5000	93		P
Mercury	ug/L	75 - 125	38.1		2.00	U	40.0	95		CV
Nickel	ug/L	75 - 125	2420		200	U	2500	97		P
Selenium	ug/L	75 - 125	9890		100	U	10000	99		P
Silver	ug/L	75 - 125	340		50.0	U	380	90		P
Zinc	ug/L	75 - 125	1250		124	J	1000	113		P

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Metals
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POST DIGEST SPIKE SUMMARY

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Matrix: Water **Level:** LOW **Client ID:** TP-6A

Sample ID: Q3412-04 **Spiked ID:** Q3412-04A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Barium	ug/L	75 - 125	1380		515		1000	87		P

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: Aramark Uniforms **Level:** LOW **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Matrix: Water **Sample ID:** Q3412-04 **Client ID:** TP-6DUP

Percent Solids for Sample: NA **Duplicate ID** Q3412-04DUP **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	515		475	J	8		P
Cadmium	ug/L	20	30.0	U	30.0	U			P
Chromium	ug/L	20	50.0	U	50.0	U			P
Copper	ug/L	20	29.1	J	28.2	J	3		P
Lead	ug/L	20	67.3		63.0		7		P
Mercury	ug/L	20	2.00	U	2.00	U			CV
Nickel	ug/L	20	200	U	200	U			P
Selenium	ug/L	20	100	U	100	U			P
Silver	ug/L	20	50.0	U	50.0	U			P
Zinc	ug/L	20	124	J	125	J	1		P

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

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: Aramark Uniforms **Level:** LOW **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Matrix: Water **Sample ID:** Q3412-04MS **Client ID:** TP-6MSD

Percent Solids for Sample: NA **Duplicate ID** Q3412-04MSD **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Arsenic	ug/L	20	4030		3940		2		P
Barium	ug/L	20	2020		1950		4		P
Cadmium	ug/L	20	1000		974		3		P
Chromium	ug/L	20	1880		1830		3		P
Copper	ug/L	20	1530		1480		3		P
Lead	ug/L	20	4870		4720		3		P
Mercury	ug/L	20	38.2		38.1		0		CV
Nickel	ug/L	20	2500		2420		3		P
Selenium	ug/L	20	10000		9890		1		P
Silver	ug/L	20	346		340		2		P
Zinc	ug/L	20	1280		1250		2		P

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

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LABORATORY CONTROL SAMPLE SUMMARY

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB170214BS							
Arsenic	ug/L	4000	3980		100	80 - 120	P
Barium	ug/L	1000	1000		100	80 - 120	P
Cadmium	ug/L	1000	973		97	80 - 120	P
Chromium	ug/L	2000	1930		96	80 - 120	P
Copper	ug/L	1500	1570		105	80 - 120	P
Lead	ug/L	5000	4880		98	80 - 120	P
Nickel	ug/L	2500	2480		99	80 - 120	P
Selenium	ug/L	10000	10100		101	80 - 120	P
Silver	ug/L	380	373		98	80 - 120	P
Zinc	ug/L	1000	1070		107	80 - 120	P

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LABORATORY CONTROL SAMPLE SUMMARY

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB170219BS							
Mercury	ug/L	4.0	3.74		94	80 - 120	CV

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ICP SERIAL DILUTIONS

SAMPLE NO.

TP-6L

Lab Name: Alliance **Contract:** ARAM01

Lab Code: ACE **Lb No.:** lb137630 **Lab Sample ID :** Q3412-04L **SDG No.:** Q3368

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	515		532	J	3		P
Cadmium	30.0	U	150	U			P
Chromium	50.0	U	250	U			P
Copper	29.1	J	500	U	100.0		P
Lead	67.3		300	U	100.0		P
Mercury	2.00	U	10.0	U			CV
Nickel	200	U	1000	U			P
Selenium	100	U	500	U			P
Silver	50.0	U	250	U			P
Zinc	124	J	1000	U	100.0		P

METAL PREPARATION & INSTRUMENT DATA

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Al	Ca	Fe	Mg	Ag
Arsenic	193.759	0.0000000	0.0000000	-0.0000440	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000930	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0007850	0.0000000	0.0000000
Lead	220.353	-0.0000920	0.0000000	0.0000380	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	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
Zinc	213.800	0.0000000	0.0000000	0.0001050	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: As	Ba	Be	Cd	Co
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0002870
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0000000	0.0009530
Lead	220.353	0.0000000	0.0003170	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	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
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Cr	Cu	K	Mn	Mo
Arsenic	193.759	-0.0029000	0.0000000	0.0000000	0.0000000	0.0004900
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000070	0.0002200	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0006510	0.0020500
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0001400	-0.0008600
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
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
Zinc	213.800	0.0000000	0.0009010	0.0000000	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Na	Ni	Pb	Sb	Se
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	-0.0047000	0.0036100	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0006580	0.0000000	0.0000000	0.0001290
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
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
Zinc	213.800	0.0000000	0.0067600	0.0000000	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE

Instrument ID: **Date:**

Interelement Correction Factors (apparent ppb analyte/ppm interferent)

Analyte	Wave-Length (nm)	ICP Interelement Correction Factors For: Sn	Ti	Tl	V	Zn
Arsenic	193.759	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Barium	493.409	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000630	0.0001280	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0001110	0.0000000
Copper	224.700	0.0000000	0.0003840	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	-0.0003610	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	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
Zinc	213.800	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

METAL PREPARATION & ANALYICAL SUMMARY

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SAMPLE PREPARATION SUMMARY

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE **Method:**

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB170214**						
PB170214BL	PB170214BL	MB	WATER	10/22/2025	5.0	25.0	
PB170214BS	PB170214BS	LCS	WATER	10/22/2025	5.0	25.0	
PB170172TB	PB170172TB	MB	WATER	10/22/2025	5.0	25.0	
Q3368-06	OUTSIDE-DUMPSTER	SAM	WATER	10/22/2025	5.0	25.0	
Q3368-07	PRESS-SLUDGE	SAM	WATER	10/22/2025	5.0	25.0	
Q3412-04DUP	TP-6DUP	DUP	WATER	10/22/2025	5.0	25.0	
Q3412-04MS	TP-6MS	MS	WATER	10/22/2025	5.0	25.0	
Q3412-04MSD	TP-6MSD	MSD	WATER	10/22/2025	5.0	25.0	

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SAMPLE PREPARATION SUMMARY

Client: Aramark Uniforms **SDG No.:** Q3368

Contract: ARAM01 **Lab Code:** ACE **Method:**

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB170219**						
PB170172TB	PB170172TB	MB	WATER	10/22/2025	3.0	30.0	
PB170219BL	PB170219BL	MB	WATER	10/22/2025	30.0	30.0	
PB170219BS	PB170219BS	LCS	WATER	10/22/2025	30.0	30.0	
Q3368-06	OUTSIDE-DUMPSTER	SAM	WATER	10/22/2025	3.0	30.0	
Q3368-07	PRESS-SLUDGE	SAM	WATER	10/22/2025	3.0	30.0	
Q3412-04DUP	TP-6DUP	DUP	WATER	10/22/2025	3.0	30.0	
Q3412-04MS	TP-6MS	MS	WATER	10/22/2025	3.0	30.0	
Q3412-04MSD	TP-6MSD	MSD	WATER	10/22/2025	3.0	30.0	

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ANALYSIS RUN LOG

Client: Aramark Uniforms **Contract:** ARAM01

Lab code: ACE **Sdg no.:** Q3368

Instrument id number: **Method:** **Run number:** LB137620

Start date: 10/23/2025 **End date:** 10/23/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	0800	HG
S0.2	S0.2	1	0803	HG
S2.5	S2.5	1	0805	HG
S5	S5	1	0807	HG
S7.5	S7.5	1	0810	HG
S10	S10	1	0812	HG
ICV84	ICV84	1	0815	HG
ICB84	ICB84	1	0818	HG
CCV75	CCV75	1	0822	HG
CCB75	CCB75	1	0824	HG
CRA	CRA	1	0827	HG
PB170219BL	PB170219BL	1	0834	HG
PB170219BS	PB170219BS	1	0836	HG
Q3368-06	OUTSIDE-DUMPSTER	1	0838	HG
Q3368-07	PRESS-SLUDGE	1	0841	HG
CCV76	CCV76	1	0850	HG
CCB76	CCB76	1	0852	HG
Q3412-04DUP	TP-6DUP	1	0913	HG
Q3412-04MS	TP-6MS	1	0916	HG
CCV77	CCV77	1	0918	HG
CCB77	CCB77	1	0920	HG
Q3412-04MSD	TP-6MSD	1	0922	HG
PB170172TB	PB170172TB	1	0925	HG
CCV78	CCV78	1	0936	HG
CCB78	CCB78	1	0938	HG

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

metals
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ANALYSIS RUN LOG

Client: Aramark Uniforms **Contract:** ARAM01

Lab code: ACE **Sdg no.:** Q3368

Instrument id number: **Method:** **Run number:** LB137630

Start date: 10/23/2025 **End date:** 10/23/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1240	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
S1	S1	1	1245	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
S2	S2	1	1249	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
S3	S3	1	1253	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
S4	S4	1	1257	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
S5	S5	1	1301	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
ICV01	ICV01	1	1305	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
LLICV01	LLICV01	1	1314	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
ICB01	ICB01	1	1320	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
CRI01	CRI01	1	1324	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
ICSA01	ICSA01	1	1328	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
ICSAB01	ICSAB01	1	1339	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
ICSA01	ICSA01	20	1343	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
ICSAB01	ICSAB01	20	1347	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
CCV01	CCV01	1	1352	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
CCB01	CCB01	1	1357	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
CCV02	CCV02	1	1504	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
CCB02	CCB02	1	1508	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
Q3368-06	OUTSIDE-DUMPSTER	1	1517	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
Q3368-07	PRESS-SLUDGE	1	1521	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
CCV03	CCV03	1	1556	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
CCB03	CCB03	1	1611	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
CCV04	CCV04	1	1643	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
CCB04	CCB04	1	1647	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
Q3412-04DUP	TP-6DUP	1	1655	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
Q3412-04L	TP-6L	5	1700	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
Q3412-04MS	TP-6MS	1	1704	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
Q3412-04MSD	TP-6MSD	1	1708	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
Q3412-04A	TP-6A	1	1712	Ba
CCV05	CCV05	1	1721	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
CCB05	CCB05	1	1725	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
CCV06	CCV06	1	1811	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
CCB06	CCB06	1	1815	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
CCV07	CCV07	1	1859	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
CCB07	CCB07	1	1904	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
PB170214BL	PB170214BL	1	1927	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
PB170214BS	PB170214BS	1	1932	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
PB170172TB	PB170172TB	1	1936	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
CCV08	CCV08	1	1948	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
CCB08	CCB08	1	1952	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
CCV09	CCV09	1	2039	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn

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metals
- 14 -
ANALYSIS RUN LOG

Client: Aramark Uniforms **Contract:** ARAM01

Lab code: ACE **Sdg no.:** Q3368

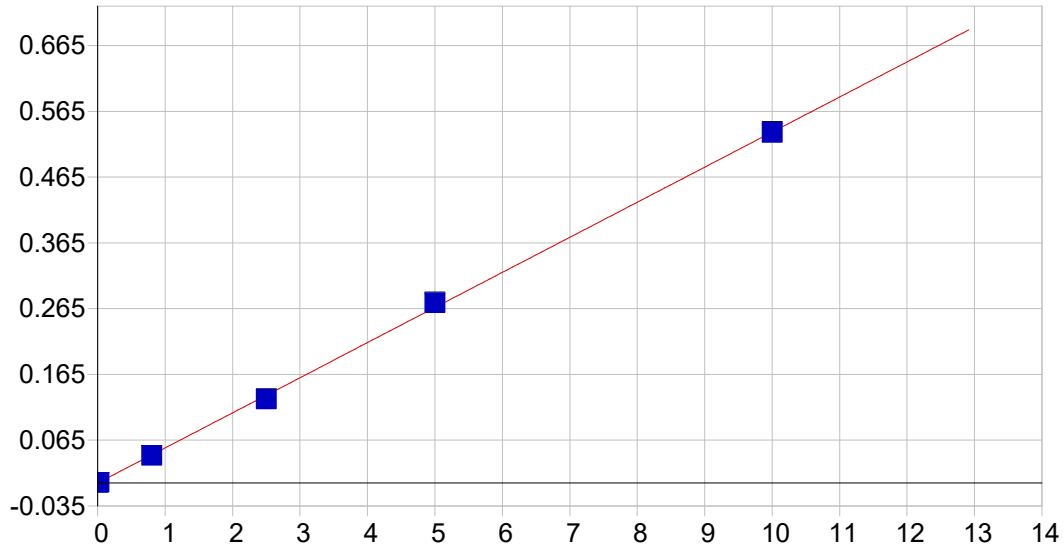
Instrument id number: **Method:** **Run number:** LB137630

Start date: 10/23/2025 **End date:** 10/23/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
CCB09	CCB09	1	2043	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
CCV10	CCV10	1	2130	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
CCB10	CCB10	1	2134	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
CCV11	CCV11	1	2220	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
CCB11	CCB11	1	2224	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
CCV12	CCV12	1	2233	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn
CCB12	CCB12	1	2237	Ag,As,Ba,Cd,Cr,Cu,Ni,Pb,Se,Zn

METAL
RAW DATA

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



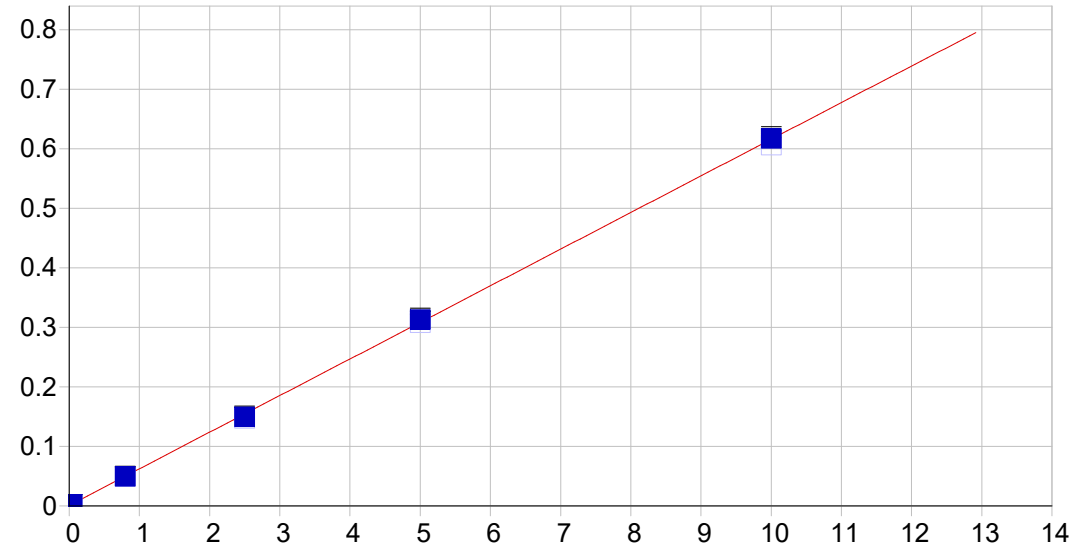
As 189.042 {479}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000034	Re-Slope:	1.000000
A1 (Gain):	0.053353	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999756	Status:	OK.
Std Error of Est:	0.000028		
Predicted MDL:	0.002152		
Predicted MQL:	0.007175		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00003	.000	1
S1	.02000	.01965	-.000	-1.76	.00101	.000	1
S3	2.5000	2.3912	-.109	-4.35	.12741	.000	1
S4	5.0000	5.1375	.138	2.75	.27380	.001	1
S5	10.000	9.9890	-.011	-.110	.53236	.001	1
S2	.80000	.78256	-.017	-2.18	.04167	.000	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



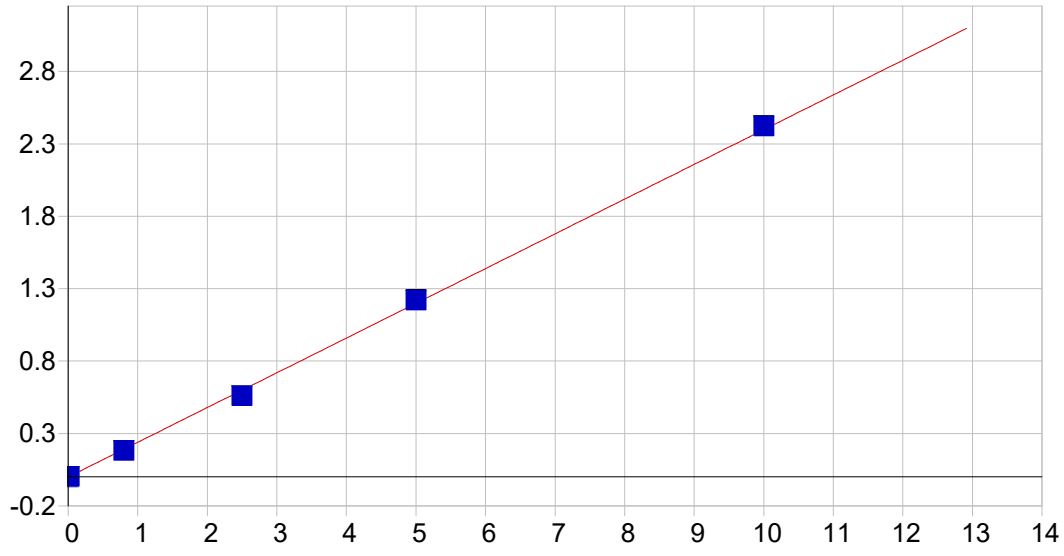
Tl 190.856 {477}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000777	Re-Slope:	1.000000
A1 (Gain):	0.061532	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999877	Status:	OK.
Std Error of Est:	0.000031		
Predicted MDL:	0.002616		
Predicted MQL:	0.008719		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00078	.000	1
S1	.04000	.03648	-.004	-8.81	.00286	.000	1
S3	2.5000	2.4158	-.084	-3.37	.14662	.002	1
S4	5.0000	5.0759	.076	1.52	.30750	.002	1
S5	10.000	10.017	.017	.168	.60591	.004	1
S2	.80000	.79482	-.005	-.647	.04879	.001	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



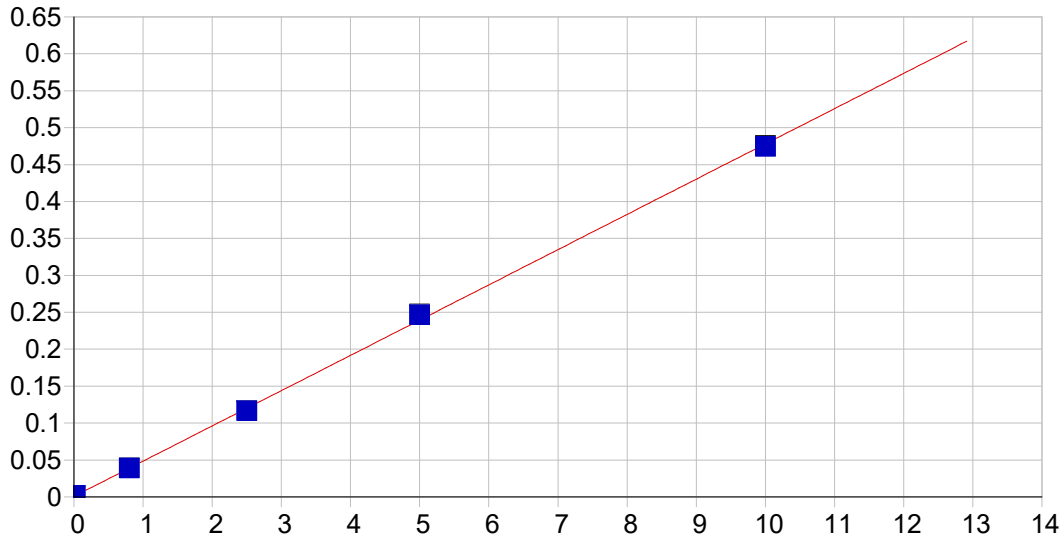
Pb 220.353 {453}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000282	Re-Slope:	1.000000
A1 (Gain):	0.239849	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999586	Status:	OK.
Std Error of Est:	0.000125		
Predicted MDL:	0.001217		
Predicted MQL:	0.004056		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00028	.000	1
S1	.01200	.01166	-.000	-2.87	.00245	.000	1
S3	2.5000	2.3403	-.160	-6.39	.56031	.001	1
S4	5.0000	5.0922	.092	1.84	1.2196	.004	1
S5	10.000	10.108	.108	1.08	2.4213	.002	1
S2	.80000	.75940	-.041	-5.07	.18163	.000	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



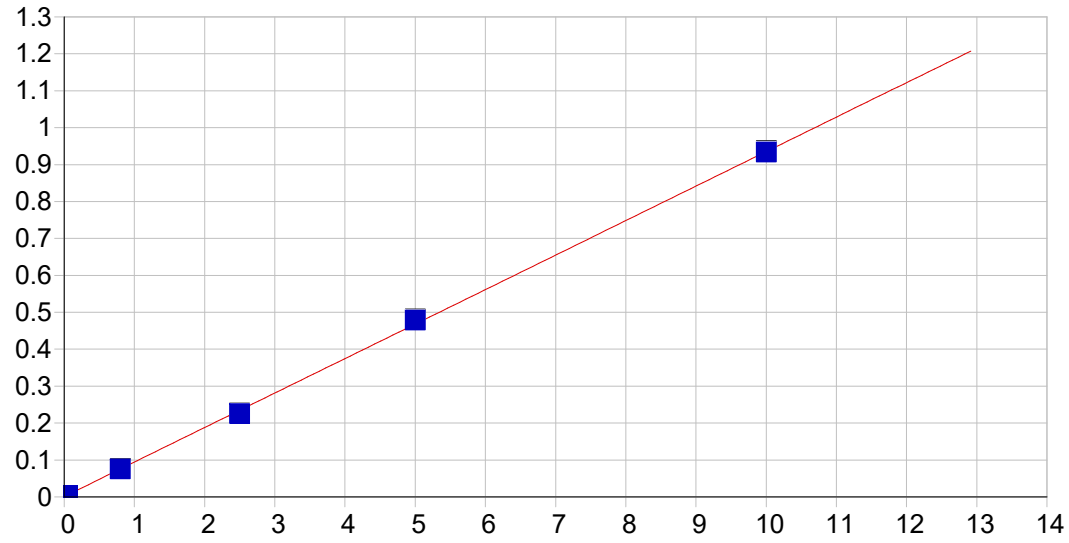
Se 196.090 {472}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000711	Re-Slope:	1.000000
A1 (Gain):	0.047732	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999807	Status:	OK.
Std Error of Est:	0.000022		
Predicted MDL:	0.003078		
Predicted MQL:	0.010261		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00071	.000	1
S1	.02000	.01955	-.000	-2.25	.00164	.000	1
S3	2.5000	2.4267	-.073	-2.93	.11651	.000	1
S4	5.0000	5.1483	.148	2.97	.24639	.001	1
S5	10.000	9.9274	-.073	-.726	.47444	.001	1
S2	.80000	.79802	-.002	-.248	.03879	.000	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



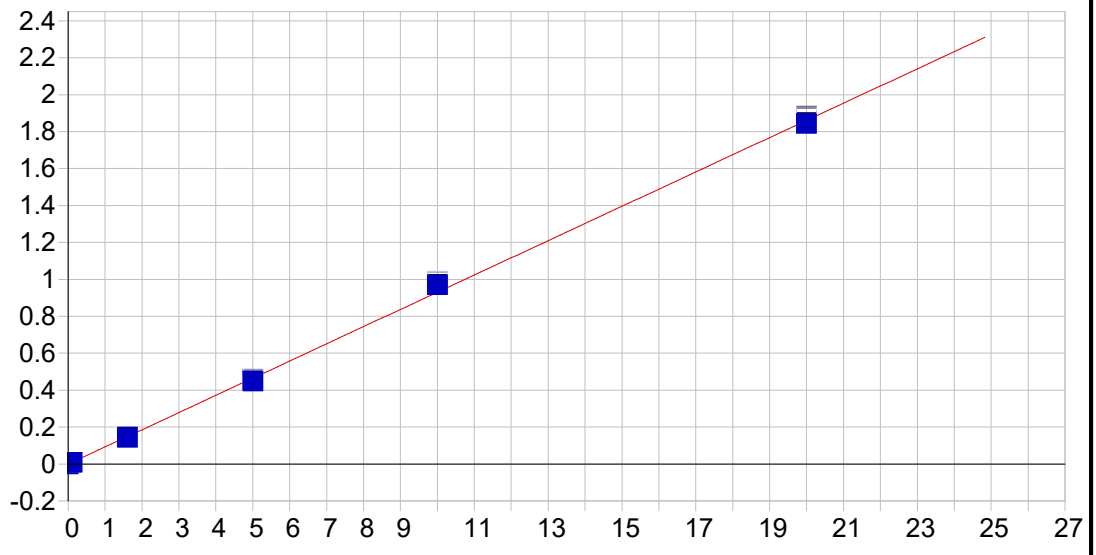
Sb 206.833 {463}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000973	Re-Slope:	1.000000
A1 (Gain):	0.093415	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999825	Status:	OK.
Std Error of Est:	0.000065		
Predicted MDL:	0.002044		
Predicted MQL:	0.006813		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00097	.000	1
S1	.05000	.04753	-.002	-4.93	.00542	.000	1
S3	2.5000	2.4042	-.096	-3.83	.22620	.000	1
S4	5.0000	5.1149	.115	2.30	.48006	.002	1
S5	10.000	9.9855	-.015	-.145	.93631	.001	1
S2	.80000	.79783	-.002	-.271	.07571	.000	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



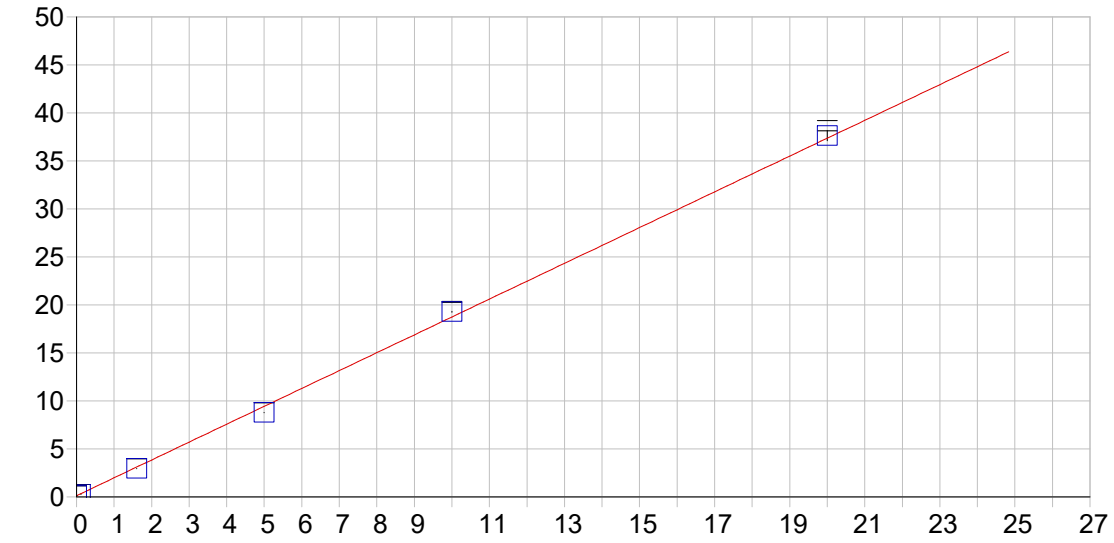
Al 396.152 { 85}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000580	Re-Slope:	1.000000
A1 (Gain):	0.093077	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999619	Status:	OK.
Std Error of Est:	0.000194		
Predicted MDL:	0.014510		
Predicted MQL:	0.048365		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	-.00058	.002	1
S1	.10000	.09529	-.005	-4.71	.00901	.001	1
S3	5.0000	4.8237	-.176	-3.53	.45743	.001	1
S4	10.000	10.433	.433	4.33	.98851	.001	1
S5	20.000	19.806	-.194	-.970	1.8790	.005	1
S2	1.6000	1.5426	-.057	-3.58	.14589	.000	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



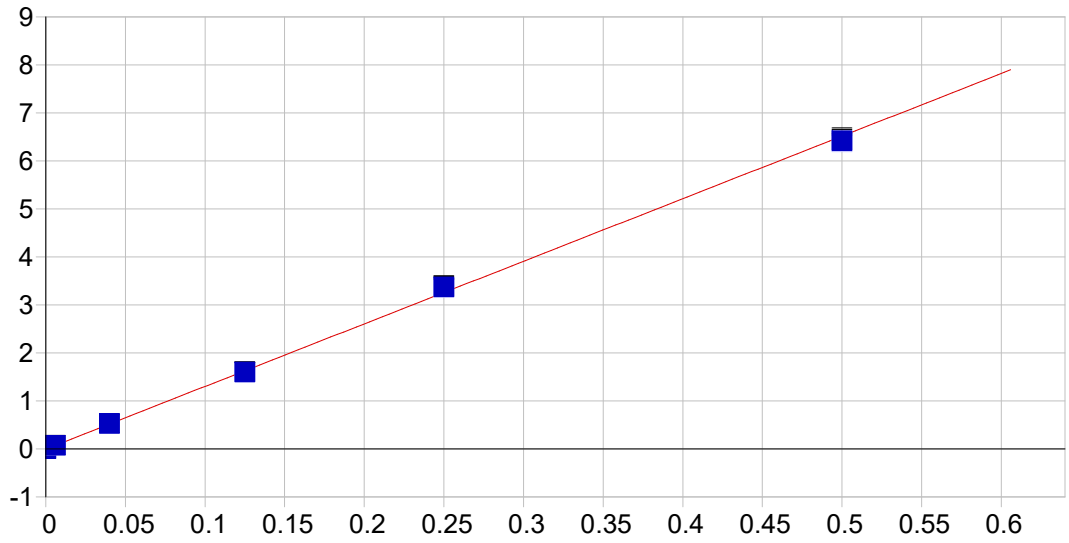
Ba 493.409 { 68}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.126021	Re-Slope:	1.000000
A1 (Gain):	1.861897	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999466	Status:	OK.
Std Error of Est:	0.004512		
Predicted MDL:	0.001814		
Predicted MQL:	0.006046		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.12605	.003	1
S1	.10000	.09130	-.009	-8.70	.29602	.006	1
S3	5.0000	4.6503	-.350	-6.99	8.7843	.008	1
S4	10.000	10.293	.293	2.93	19.291	.048	1
S5	20.000	20.148	.148	.739	37.639	.539	1
S2	1.6000	1.5173	-.083	-5.17	2.9511	.015	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

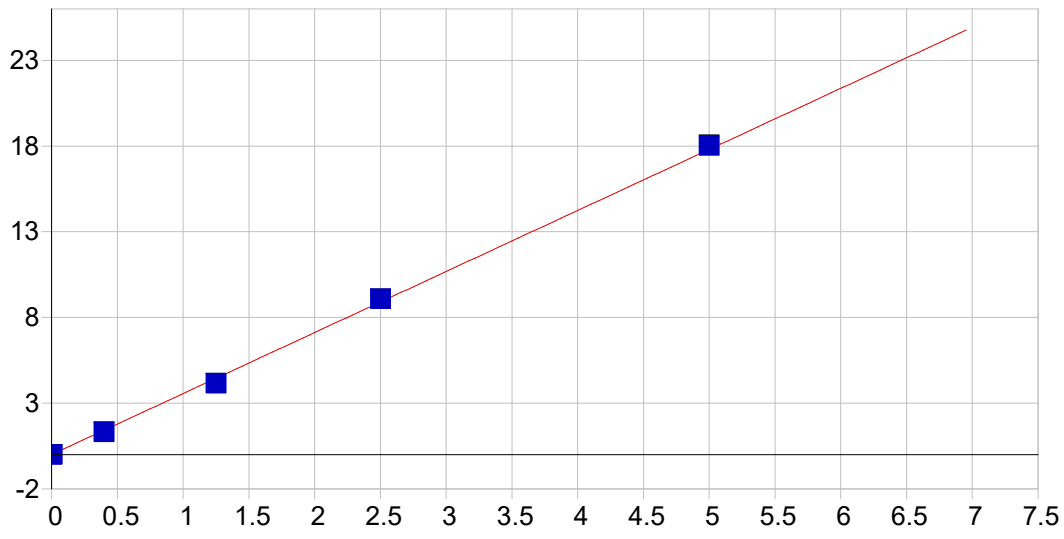


Be 234.861 {144}

Date of Fit:		Type of Fit:	Linear	Weighting:	1/Conc
A0 (Offset):	-0.002437		Re-Slope:	1.000000	
A1 (Gain):	13.037811		Y-int:	0.000000	
A2 (Curvature):	0.000000				
n (Exponent):	1.000000				
Correlation:	0.999741		Status:	OK.	
Std Error of Est:	0.000849				
Predicted MDL:	0.000070				
Predicted MQL:	0.000234				

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00244	.000	1
S1	.00600	.00601	.000	.131	.07531	.000	1
S3	.12500	.12277	-.002	-1.79	1.5909	.006	1
S4	.25000	.25889	.009	3.56	3.3584	.029	1
S5	.50000	.49271	-.007	-1.46	6.3922	.057	1
S2	.04000	.04062	.001	1.56	.52486	.002	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



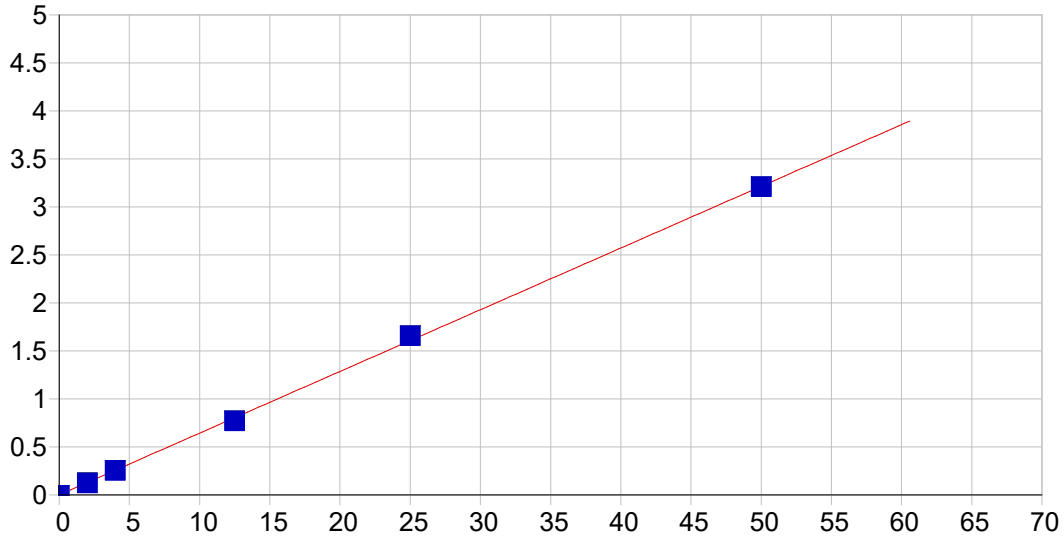
Cd 226.502 {449}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000361	Re-Slope:	1.000000
A1 (Gain):	3.561111	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999477	Status:	OK.
Std Error of Est:	0.001047		
Predicted MDL:	0.000069		
Predicted MQL:	0.000231		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00036	.000	1
S1	.00600	.00537	-.001	-10.5	.01882	.000	1
S3	1.2500	1.1666	-.083	-6.67	4.1568	.007	1
S4	2.5000	2.5523	.052	2.09	9.0945	.015	1
S5	5.0000	5.0610	.061	1.22	18.034	.035	1
S2	.40000	.37080	-.029	-7.30	1.3210	.000	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



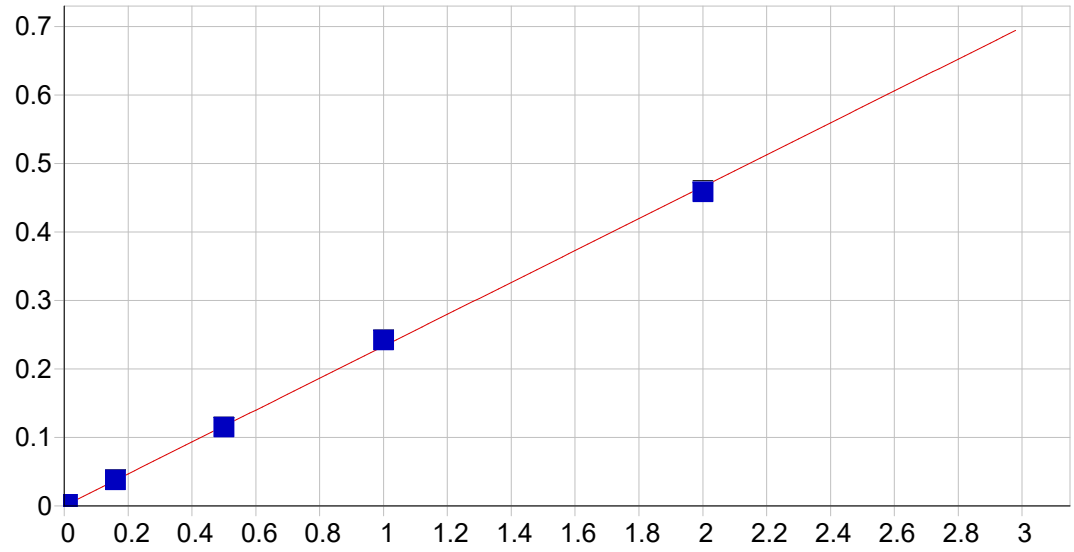
Ca 373.690 { 90}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000731	Re-Slope:	1.000000
A1 (Gain):	0.064269	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999708	Status:	OK.
Std Error of Est:	0.000822		
Predicted MDL:	0.016660		
Predicted MQL:	0.055534		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00015	.000	.000	.00074	.000	1
S2	4.0000	3.9177	-.082	-2.06	.25251	.000	1
S3	12.500	11.945	-.555	-4.44	.76840	.002	1
S4	25.000	25.789	.789	3.16	1.6582	.003	1
S5	50.000	49.928	-.072	-.143	3.2096	.005	1
S1	2.0000	1.9200	-.080	-4.00	.12412	.001	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



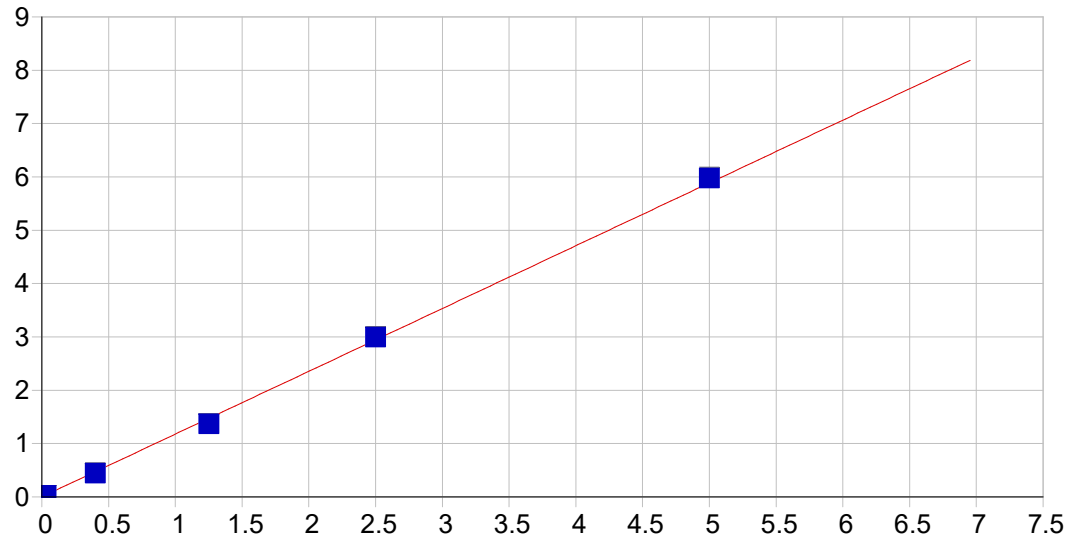
Cr 267.716 {126}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000145	Re-Slope:	1.000000
A1 (Gain):	0.233023	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999691	Status:	OK.
Std Error of Est:	0.000043		
Predicted MDL:	0.000366		
Predicted MQL:	0.001220		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00015	.000	1
S1	.01000	.00957	-.000	-4.25	.00238	.000	1
S3	.50000	.49186	-.008	-1.63	.11485	.000	1
S4	1.0000	1.0391	.039	3.91	.24247	.001	1
S5	2.0000	1.9668	-.033	-1.66	.45883	.001	1
S2	.16000	.16265	.003	1.66	.03808	.000	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



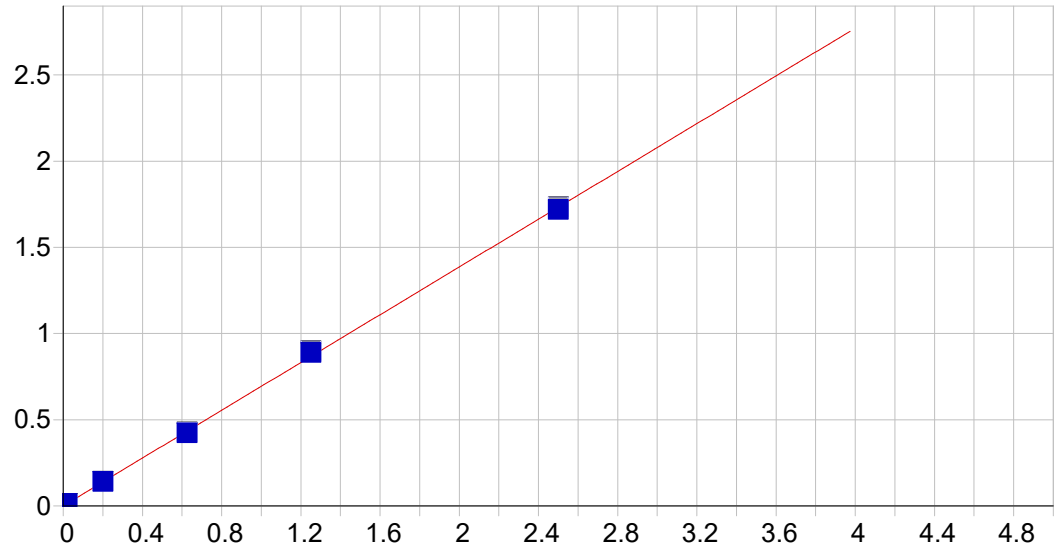
Co 228.616 {448}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000275	Re-Slope:	1.000000
A1 (Gain):	1.177358	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999453	Status:	OK.
Std Error of Est:	0.000793		
Predicted MDL:	0.000186		
Predicted MQL:	0.000619		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00028	.000	1
S1	.03000	.02732	-.003	-8.93	.03229	.000	1
S3	1.2500	1.1604	-.090	-7.17	1.3690	.002	1
S4	2.5000	2.5429	.043	1.72	2.9992	.008	1
S5	5.0000	5.0744	.074	1.49	5.9847	.010	1
S2	.40000	.37490	-.025	-6.27	.44247	.001	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



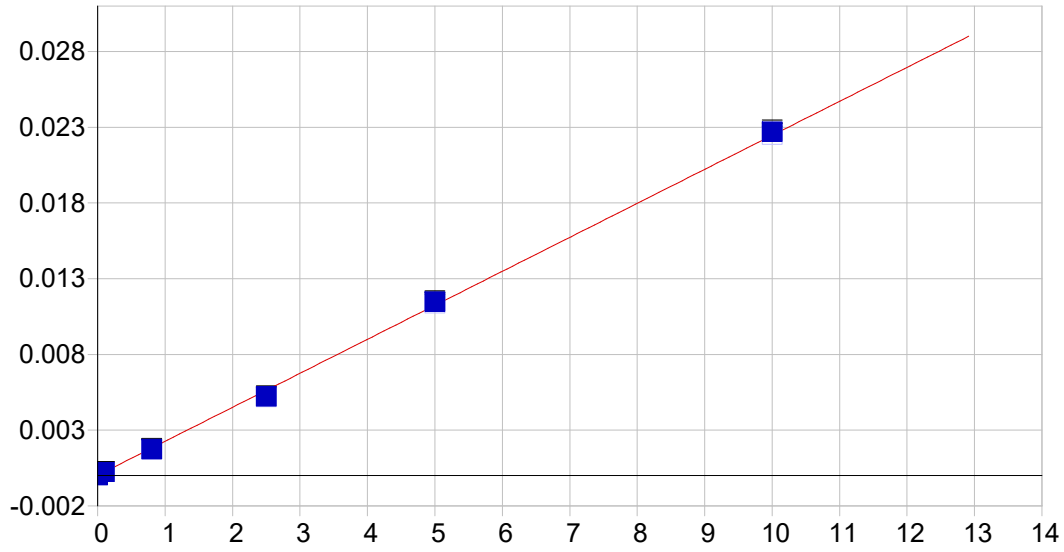
Cu 224.700 {450}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000751	Re-Slope:	1.000000
A1 (Gain):	0.692844	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999839	Status:	OK.
Std Error of Est:	0.000147		
Predicted MDL:	0.000425		
Predicted MQL:	0.001418		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00075	.000	1
S1	.02000	.02015	.000	.737	.01487	.000	1
S3	.62500	.60932	-.016	-2.51	.42670	.003	1
S4	1.2500	1.2838	.034	2.70	.89779	.002	1
S5	2.5000	2.4793	-.021	-.826	1.7337	.003	1
S2	.20000	.20238	.002	1.19	.14218	.000	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



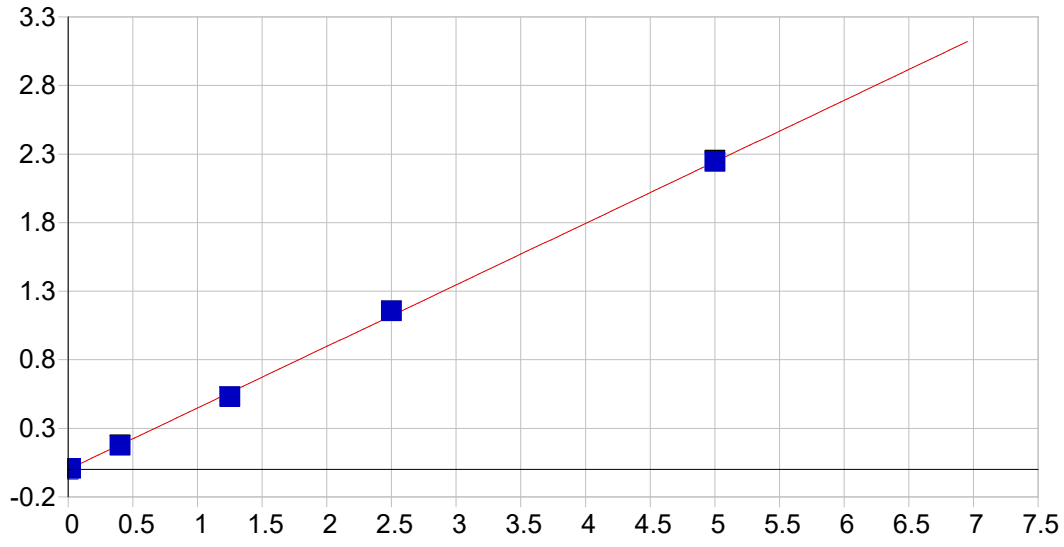
Fe 240.488 {140}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000021	Re-Slope:	1.000000
A1 (Gain):	0.002244	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999515	Status:	OK.
Std Error of Est:	0.000004		
Predicted MDL:	0.010360		
Predicted MQL:	0.034535		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00002	.000	1
S1	.10000	.09876	-.001	-1.24	.00024	.000	1
S3	2.5000	2.3193	-.181	-7.23	.00518	.000	1
S4	5.0000	5.1054	.105	2.11	.01138	.000	1
S5	10.000	10.107	.107	1.07	.02251	.000	1
S2	.80000	.76997	-.030	-3.75	.00173	.000	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



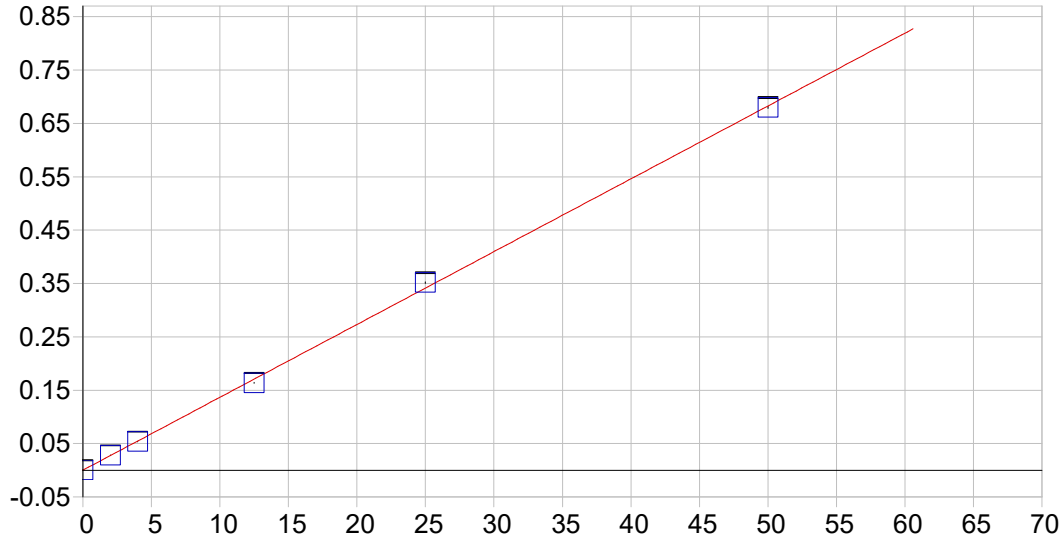
Mn 257.610 {131}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000205	Re-Slope:	1.000000
A1 (Gain):	0.448558	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999664	Status:	OK.
Std Error of Est:	0.000193		
Predicted MDL:	0.000851		
Predicted MQL:	0.002837		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00021	.000	1
S1	.02000	.01920	-.001	-4.01	.00882	.000	1
S3	1.2500	1.1812	-.069	-5.50	.53017	.000	1
S4	2.5000	2.5738	.074	2.95	1.1549	.001	1
S5	5.0000	5.0040	.004	.080	2.2452	.010	1
S2	.40000	.39176	-.008	-2.06	.17597	.001	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



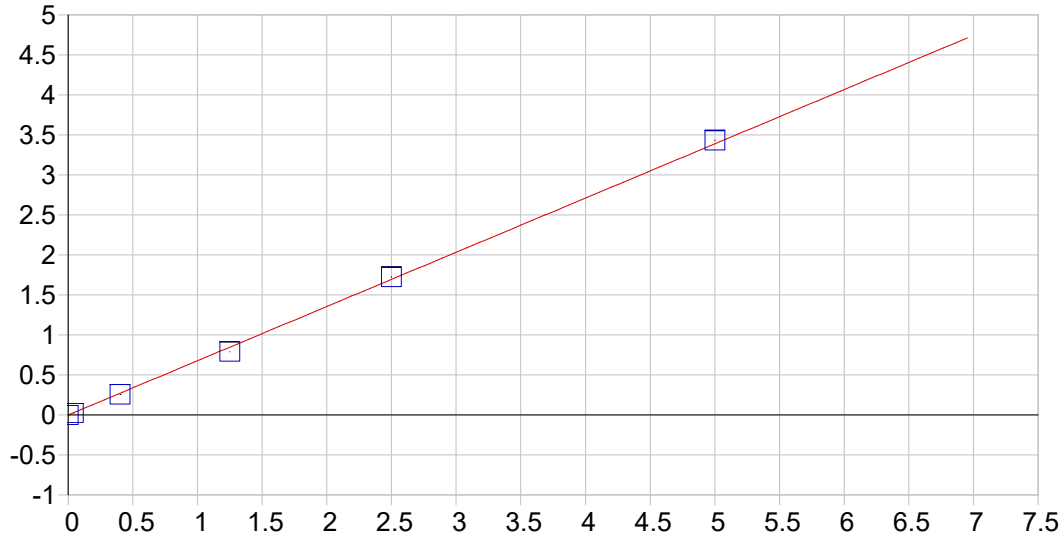
Mg 279.079 {121}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000160	Re-Slope:	1.000000
A1 (Gain):	0.013649	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999753	Status:	OK.
Std Error of Est:	0.000161		
Predicted MDL:	0.036355		
Predicted MQL:	0.121182		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00005	.000	.000	.00016	.001	1
S2	4.0000	3.9290	-.071	-1.78	.05379	.000	1
S3	12.500	11.985	-.515	-4.12	.16375	.001	1
S4	25.000	25.756	.756	3.03	.35171	.001	1
S5	50.000	49.812	-.188	-.377	.68004	.002	1
S1	2.0000	2.0178	.018	.892	.02770	.001	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



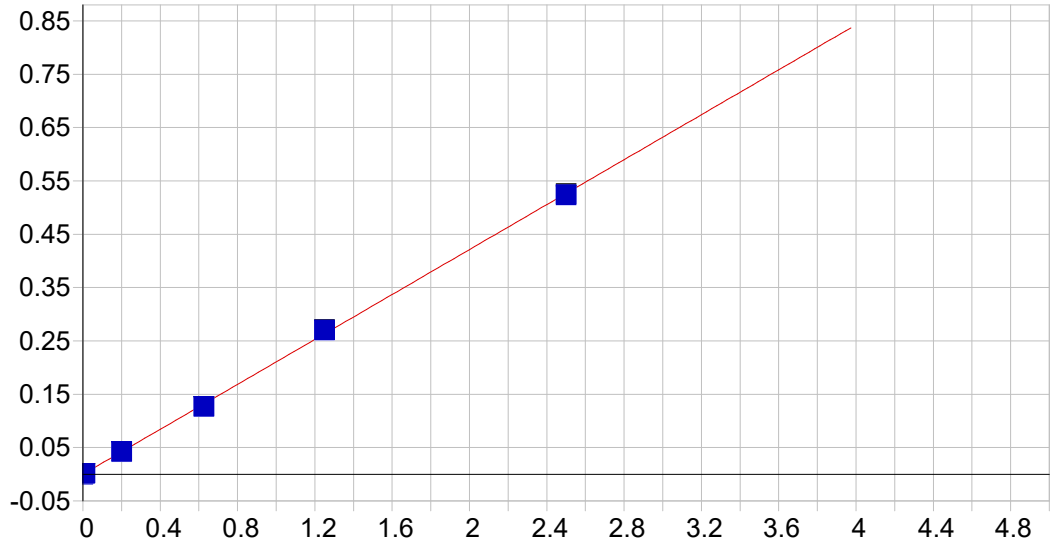
Ni 231.604 {446}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000631	Re-Slope:	1.000000
A1 (Gain):	0.677832	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999528	Status:	OK.
Std Error of Est:	0.000489		
Predicted MDL:	0.000344		
Predicted MQL:	0.001145		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	-.00063	.000	1
S1	.04000	.03634	-.004	-9.14	.02400	.000	1
S3	1.2500	1.1665	-.084	-6.68	.79004	.002	1
S4	2.5000	2.5448	.045	1.79	1.7243	.004	1
S5	5.0000	5.0639	.064	1.28	3.4318	.005	1
S2	.40000	.37859	-.021	-5.35	.25599	.000	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



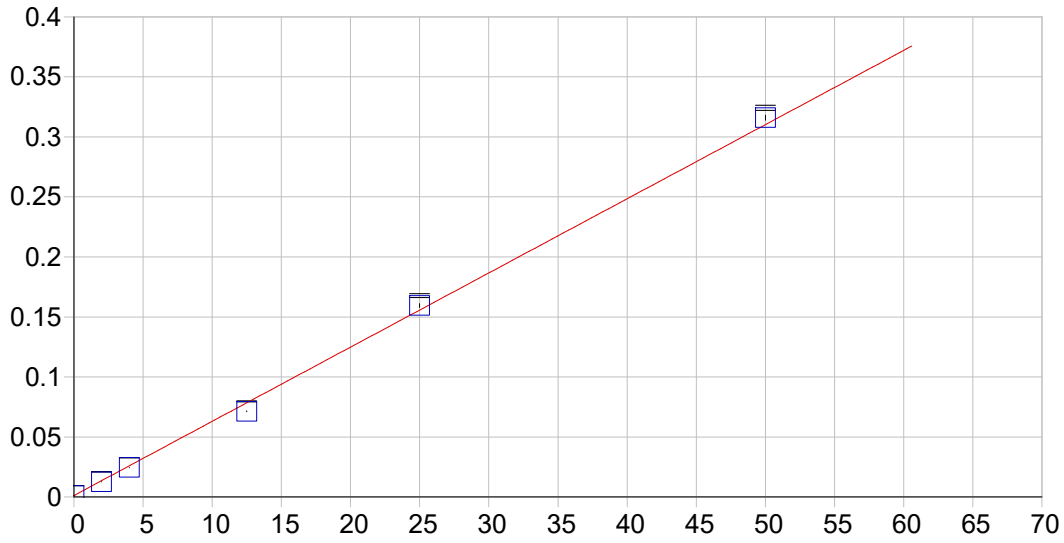
Ag 328.068 {103}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000080	Re-Slope:	1.000000
A1 (Gain):	0.210675	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999806	Status:	OK.
Std Error of Est:	0.000034		
Predicted MDL:	0.000626		
Predicted MQL:	0.002086		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00008	.000	1
S1	.01000	.00919	-.001	-8.14	.00184	.000	1
S3	.62500	.60266	-.022	-3.57	.12635	.000	1
S4	1.2500	1.2827	.033	2.62	.26909	.001	1
S5	2.5000	2.4897	-.010	-.412	.52231	.001	1
S2	.20000	.20074	.001	.371	.04204	.000	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



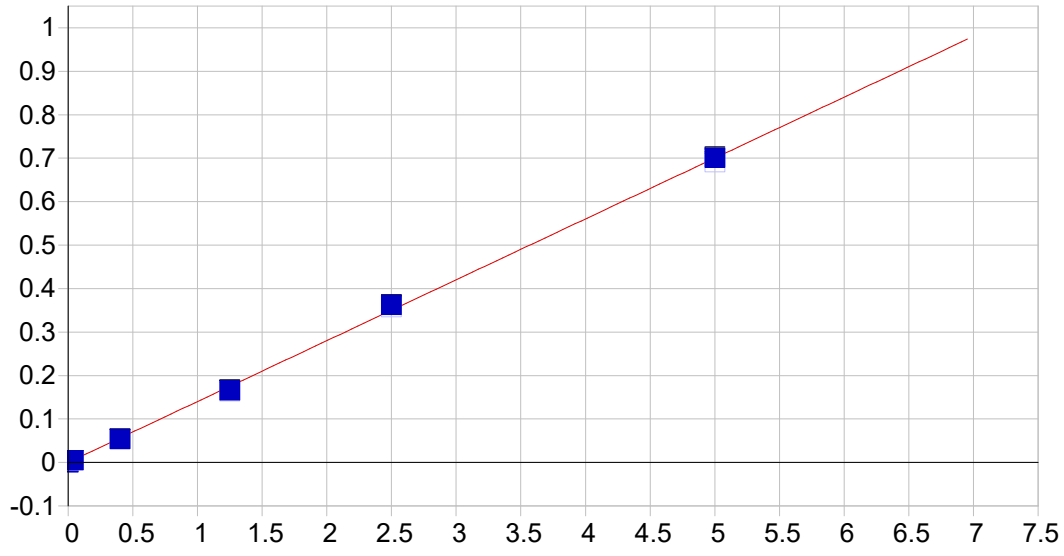
Na 589.592 { 57}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001195	Re-Slope:	1.000000
A1 (Gain):	0.006181	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999123	Status:	OK.
Std Error of Est:	0.000137		
Predicted MDL:	0.026880		
Predicted MQL:	0.089601		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00037	.000	.000	.00120	.000	1
S2	4.0000	3.7559	-.244	-6.10	.02441	.000	1
S3	12.500	11.347	-1.15	-9.23	.07133	.000	1
S4	25.000	25.607	.607	2.43	.15947	.002	1
S5	50.000	50.935	.935	1.87	.31603	.002	1
S1	2.0000	1.8553	-.145	-7.24	.01266	.000	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



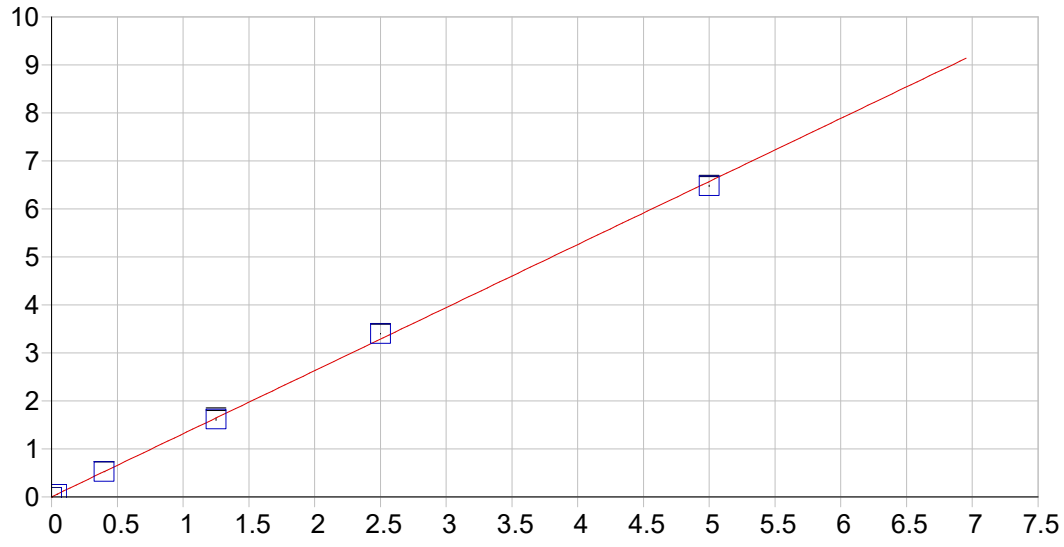
V 292.402 {115}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000099	Re-Slope:	1.000000
A1 (Gain):	0.140044	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999572	Status:	OK.
Std Error of Est:	0.000095		
Predicted MDL:	0.004157		
Predicted MQL:	0.013855		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00010	.000	1
S1	.04000	.03496	-.005	-12.6	.00479	.000	1
S3	1.2500	1.1841	-.066	-5.27	.16337	.001	1
S4	2.5000	2.5843	.084	3.37	.35692	.001	1
S5	5.0000	5.0030	.003	.059	.69052	.002	1
S2	.40000	.38355	-.016	-4.11	.05300	.000	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



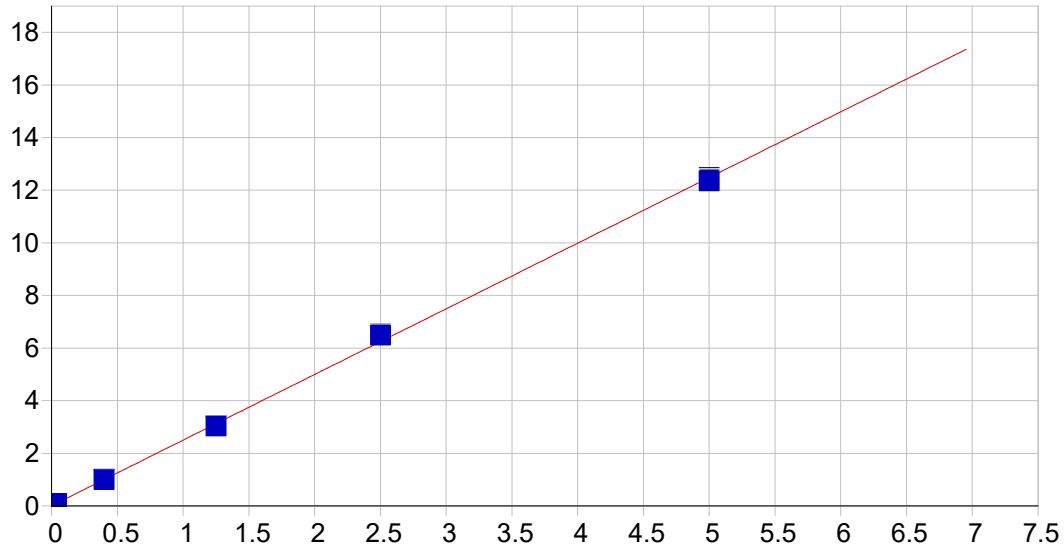
Zn 206.200 {464}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001520	Re-Slope:	1.000000
A1 (Gain):	1.314103	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999770	Status:	OK.
Std Error of Est:	0.000661		
Predicted MDL:	0.000132		
Predicted MQL:	0.000440		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00152	.000	1
S1	.04000	.03973	-.000	-.685	.05372	.000	1
S3	1.2500	1.2318	-.018	-1.45	1.6203	.026	1
S4	2.5000	2.5869	.087	3.48	3.4010	.007	1
S5	5.0000	4.9317	-.068	-1.37	6.4822	.013	1
S2	.40000	.39984	-.000	-.040	.52695	.001	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



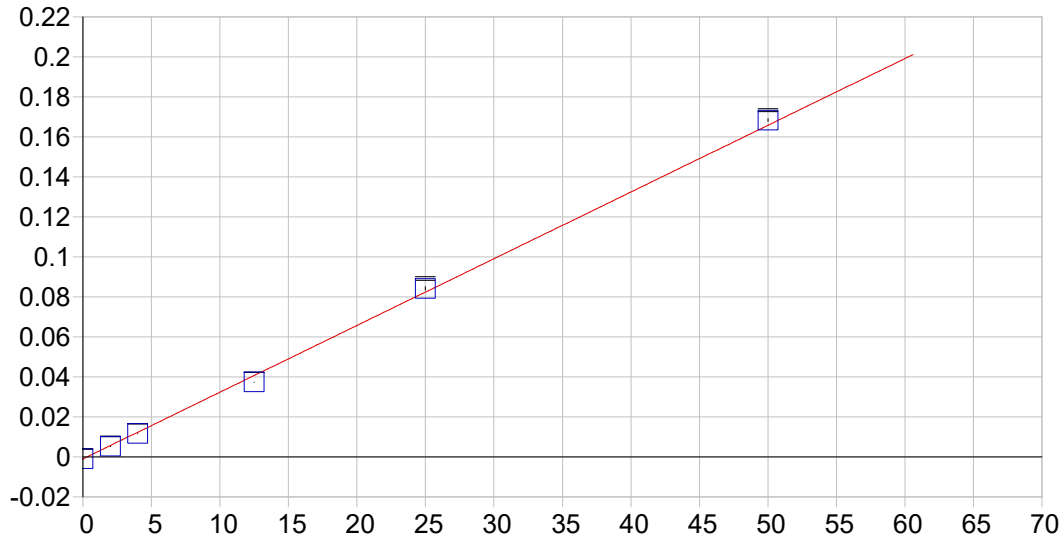
Zn 213.856 {158}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.004770	Re-Slope:	1.000000
A1 (Gain):	2.495666	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999701	Status:	OK.
Std Error of Est:	0.001442		
Predicted MDL:	0.000248		
Predicted MQL:	0.000826		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00477	.001	1
S1	.04000	.03902	-.001	-2.45	.10285	.000	1
S3	1.2500	1.2120	-.038	-3.04	3.0512	.008	1
S4	2.5000	2.5966	.097	3.87	6.5285	.006	1
S5	5.0000	4.9430	-.057	-1.14	12.428	.050	1
S2	.40000	.39939	-.001	-.153	1.0085	.003	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



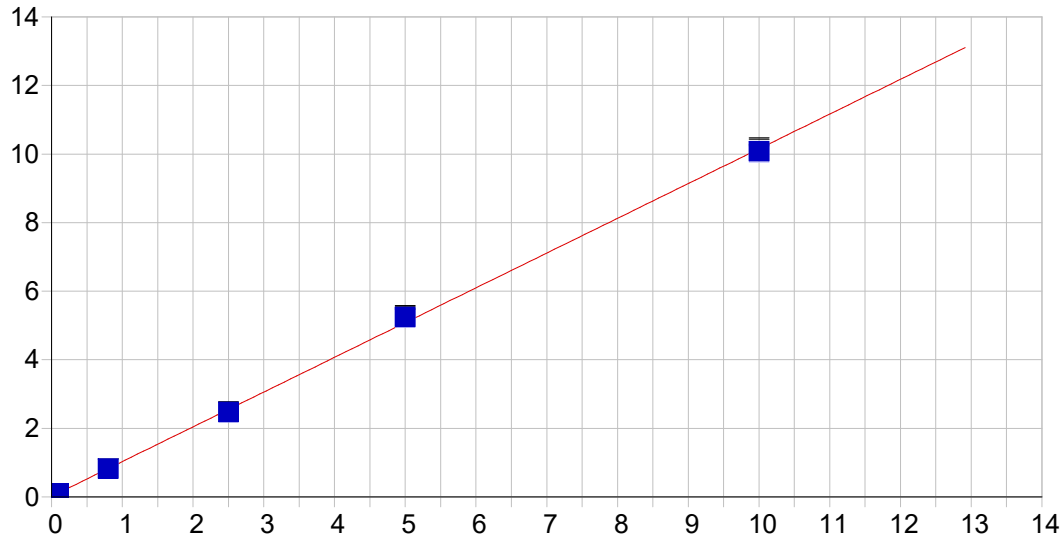
K 766.490 { 44}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001015	Re-Slope:	1.000000
A1 (Gain):	0.003337	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999361	Status:	OK.
Std Error of Est:	0.000063		
Predicted MDL:	0.059201		
Predicted MQL:	0.197336		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00031	.000	.000	-.00101	.000	1
S2	4.0000	3.7823	-.218	-5.44	.01161	.000	1
S3	12.500	11.518	-.982	-7.86	.03742	.000	1
S4	25.000	25.544	.544	2.17	.08422	.001	1
S5	50.000	50.772	.772	1.54	.16840	.001	1
S1	2.0000	1.8838	-.116	-5.81	.00527	.000	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



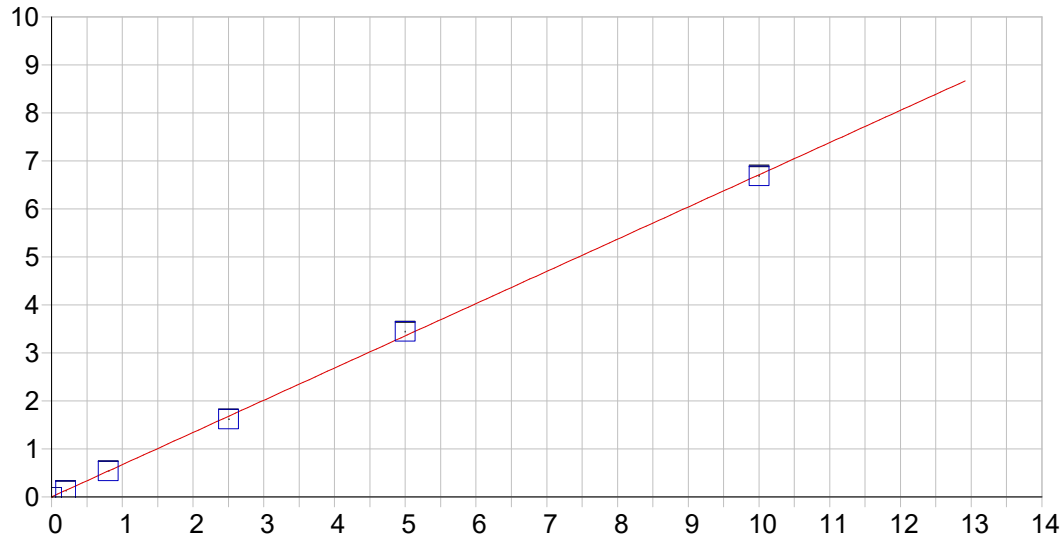
B 249.678 {135}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.016244	Re-Slope:	1.000000
A1 (Gain):	1.013571	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999780	Status:	OK.
Std Error of Est:	0.001113		
Predicted MDL:	0.000926		
Predicted MQL:	0.003085		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.01625	.001	1
S1	.10000	.09329	-.007	-6.71	.11020	.001	1
S3	2.5000	2.4253	-.075	-2.99	2.4654	.009	1
S4	5.0000	5.1557	.156	3.11	5.2237	.046	1
S5	10.000	9.9321	-.068	-.679	10.047	.097	1
S2	.80000	.79353	-.006	-.809	.81762	.005	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



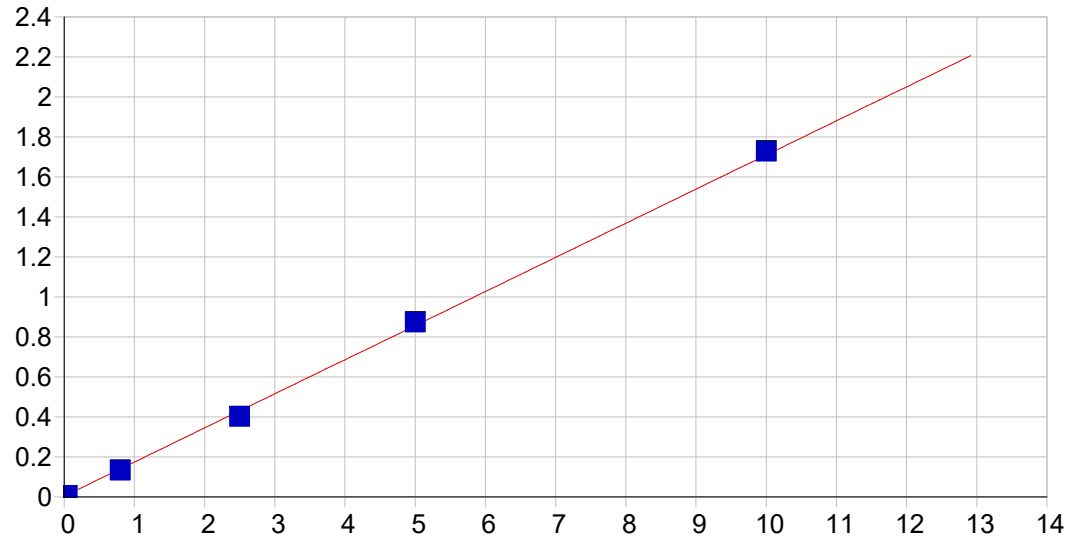
Mo 202.030 {467}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000634	Re-Slope:	1.000000
A1 (Gain):	0.671045	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999799	Status:	OK.
Std Error of Est:	0.001001		
Predicted MDL:	0.000269		
Predicted MQL:	0.000898		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00002	.000	.000	.00064	.000	1
S1	.20000	.18698	-.013	-6.51	.12610	.000	1
S3	2.5000	2.4129	-.087	-3.49	1.6198	.002	1
S4	5.0000	5.1310	.131	2.62	3.4437	.011	1
S5	10.000	9.9680	-.032	-.320	6.6896	.016	1
S2	.80000	.80122	.001	.152	.53829	.001	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



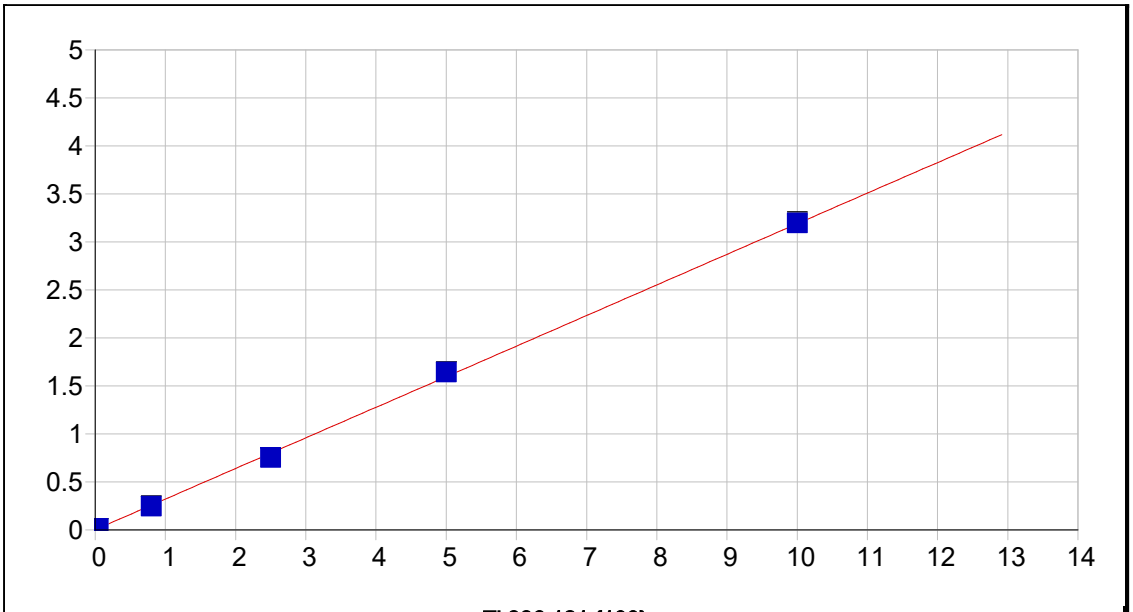
Sn 189.989 {478}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.003771	Re-Slope:	1.000000
A1 (Gain):	0.170543	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999554	Status:	OK.
Std Error of Est:	0.000169		
Predicted MDL:	0.000582		
Predicted MQL:	0.001939		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00377	.000	1
S1	.04000	.03465	-.005	-13.4	.00967	.000	1
S3	2.5000	2.3369	-.163	-6.53	.40187	.001	1
S4	5.0000	5.0960	.096	1.92	.87198	.003	1
S5	10.000	10.111	.111	1.11	1.7265	.003	1
S2	.80000	.76116	-.039	-4.86	.13344	.000	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



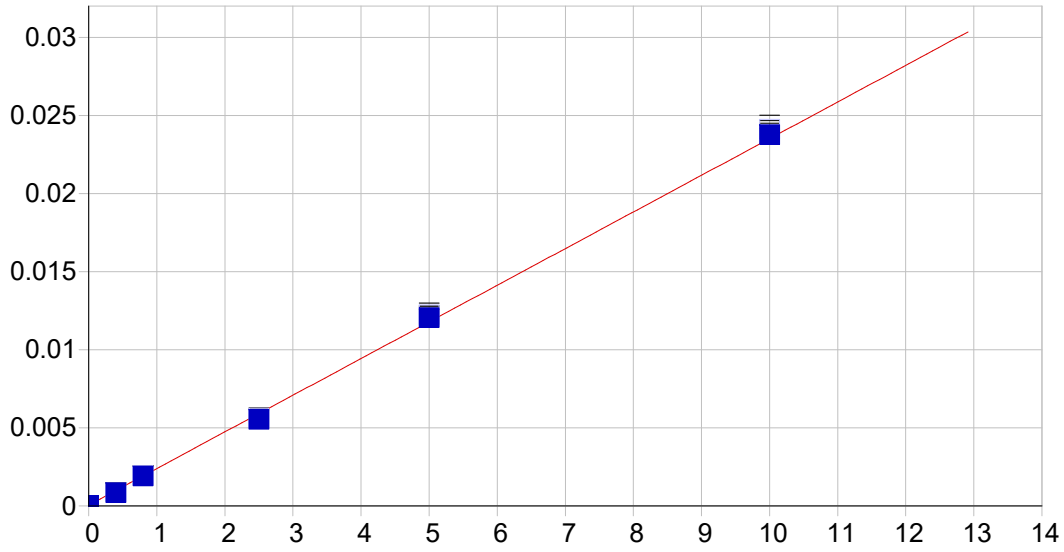
Ti 336.121 {100}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002394	Re-Slope:	1.000000
A1 (Gain):	0.318691	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999597	Status:	OK.
Std Error of Est:	0.000300		
Predicted MDL:	0.002390		
Predicted MQL:	0.007967		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00240	.001	1
S1	.04000	.03515	-.005	-12.1	.01359	.000	1
S3	2.5000	2.3559	-.144	-5.76	.75292	.002	1
S4	5.0000	5.1537	.154	3.07	1.6443	.005	1
S5	10.000	10.025	.025	.248	3.1961	.011	1
S2	.80000	.77040	-.030	-3.70	.24782	.001	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



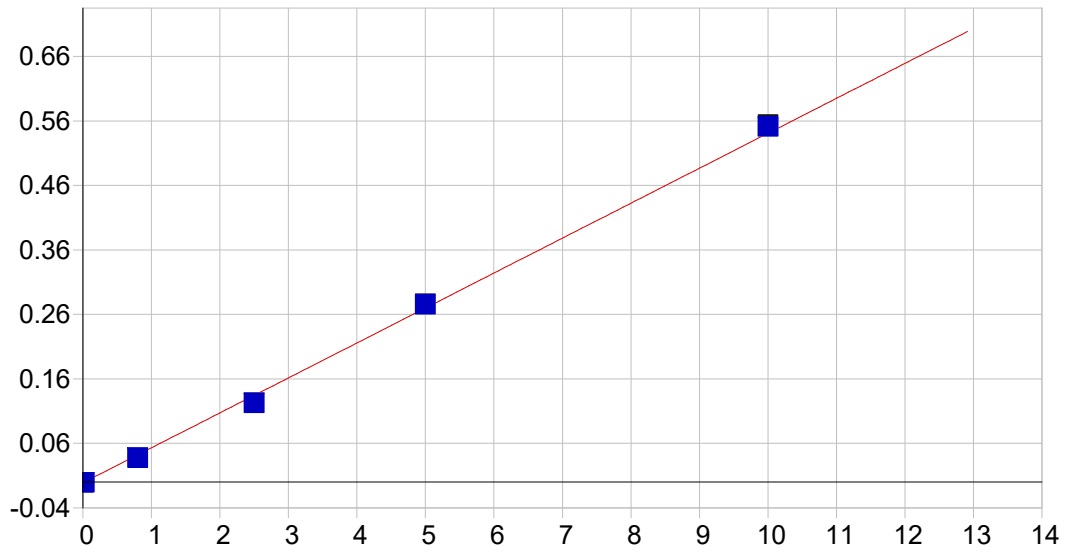
Si 288.158 {117}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000046	Re-Slope:	1.000000
A1 (Gain):	0.002347	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999393	Status:	OK.
Std Error of Est:	0.000009		
Predicted MDL:	0.018175		
Predicted MQL:	0.060585		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00007	.000	.000	.00005	.000	1
S1	.40000	.34085	-.059	-14.8	.00085	.000	1
S3	2.5000	2.3366	-.163	-6.54	.00562	.000	1
S4	5.0000	5.1165	.116	2.33	.01223	.000	1
S5	10.000	10.109	.109	1.09	.02412	.000	1
S2	.80000	.79618	-.004	-.478	.00194	.000	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



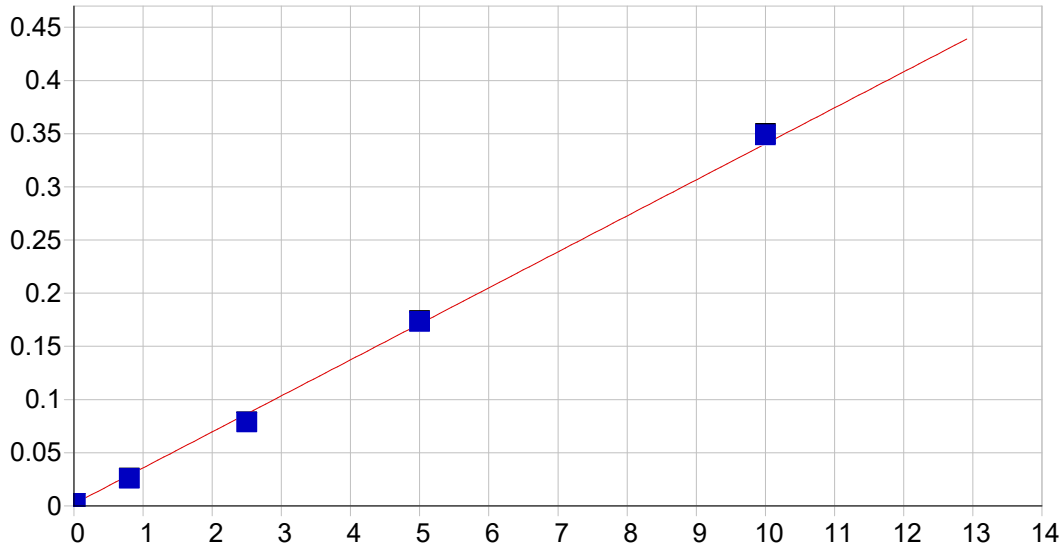
P 177.495 {490}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001011	Re-Slope:	1.000000
A1 (Gain):	0.054185	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999084	Status:	OK.
Std Error of Est:	0.000054		
Predicted MDL:	0.001475		
Predicted MQL:	0.004918		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	-.00101	.000	1
S1	.02000	.01691	-.003	-15.5	-.00009	.000	1
S3	2.5000	2.2817	-.218	-8.73	.12260	.000	1
S4	5.0000	5.1019	.102	2.04	.27539	.001	1
S5	10.000	10.200	.200	2.00	.55157	.002	1
S2	.80000	.71996	-.080	-10.0	.03799	.000	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



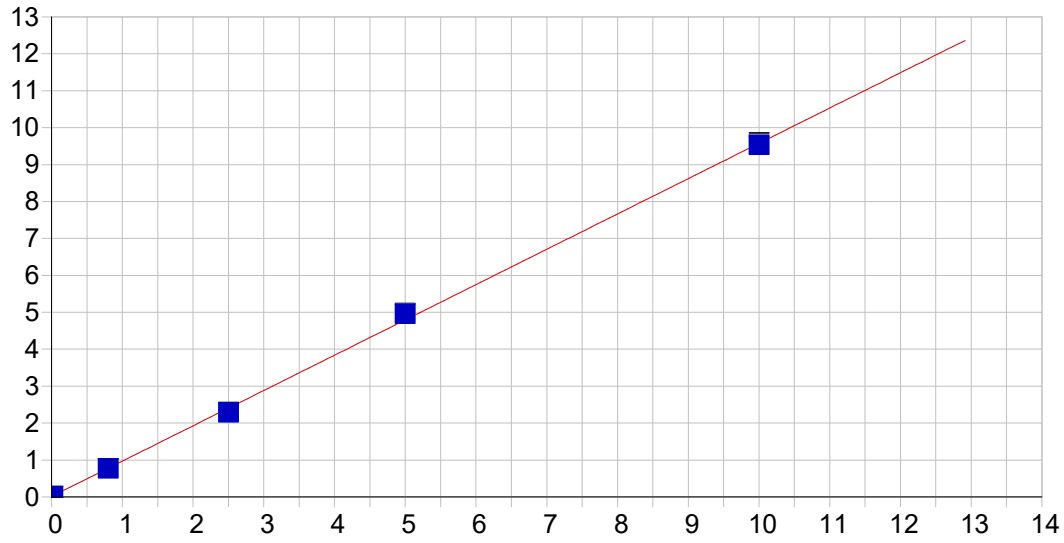
S 182.034 {485}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001883	Re-Slope:	1.000000
A1 (Gain):	0.033852	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998925	Status:	OK.
Std Error of Est:	0.000037		
Predicted MDL:	0.002639		
Predicted MQL:	0.008796		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00188	.000	1
S1	.02000	.01420	-.006	-29.0	.00233	.000	1
S3	2.5000	2.2719	-.228	-9.12	.07857	.000	1
S4	5.0000	5.0673	.067	1.35	.17298	.001	1
S5	10.000	10.253	.253	2.53	.34810	.001	1
S2	.80000	.71308	-.087	-10.9	.02595	.000	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



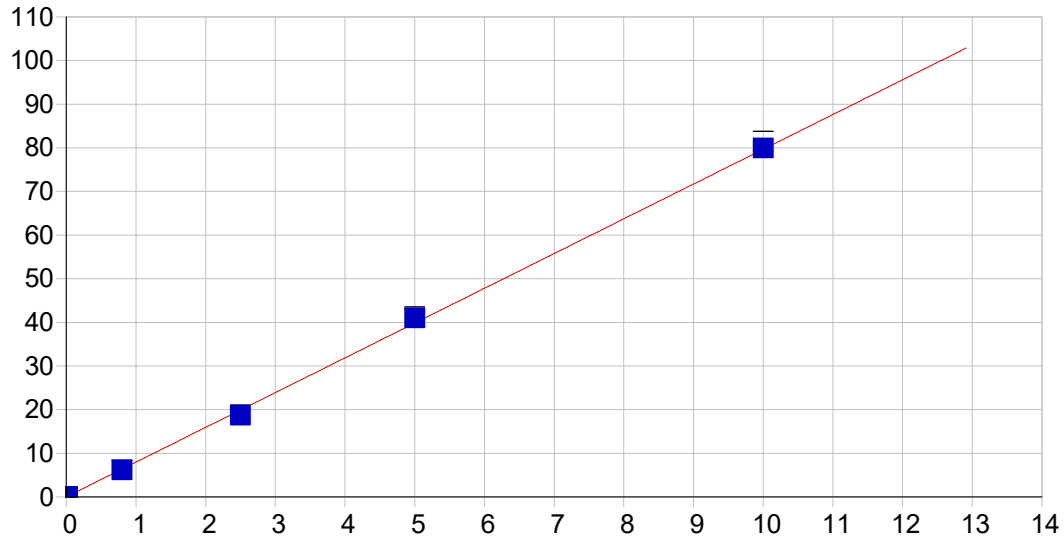
Li 670.784 { 50}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.012604	Re-Slope:	1.000000
A1 (Gain):	0.956319	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999678	Status:	OK.
Std Error of Est:	0.000570		
Predicted MDL:	0.002571		
Predicted MQL:	0.008571		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.01261	.001	1
S5	10.000	9.9567	-.043	-.433	9.5420	.052	1
S4	5.0000	5.1705	.170	3.41	4.9611	.015	1
S3	2.5000	2.3811	-.119	-4.75	2.2916	.001	1
S1	.02000	.01841	-.002	-7.97	.03054	.002	1
S2	.80000	.79335	-.007	-.831	.77192	.003	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



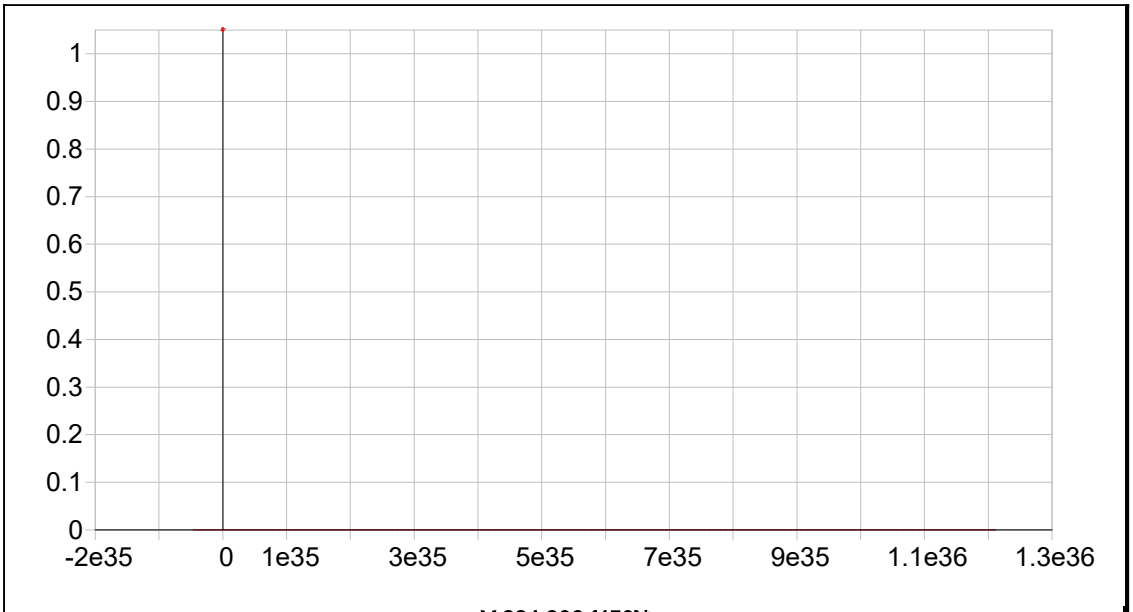
Sr 407.771 { 83}

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002243	Re-Slope:	1.000000
A1 (Gain):	7.965645	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999601	Status:	OK.
Std Error of Est:	0.005279		
Predicted MDL:	0.000164		
Predicted MQL:	0.000546		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00226	.001	1
S1	.02000	.01938	-.001	-3.12	.15735	.000	1
S3	2.5000	2.3492	-.151	-6.03	18.734	.023	1
S4	5.0000	5.1450	.145	2.90	41.023	.231	1
S5	10.000	10.037	.037	.374	80.033	1.48	1
S2	.80000	.76904	-.031	-3.87	6.1342	.023	1

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

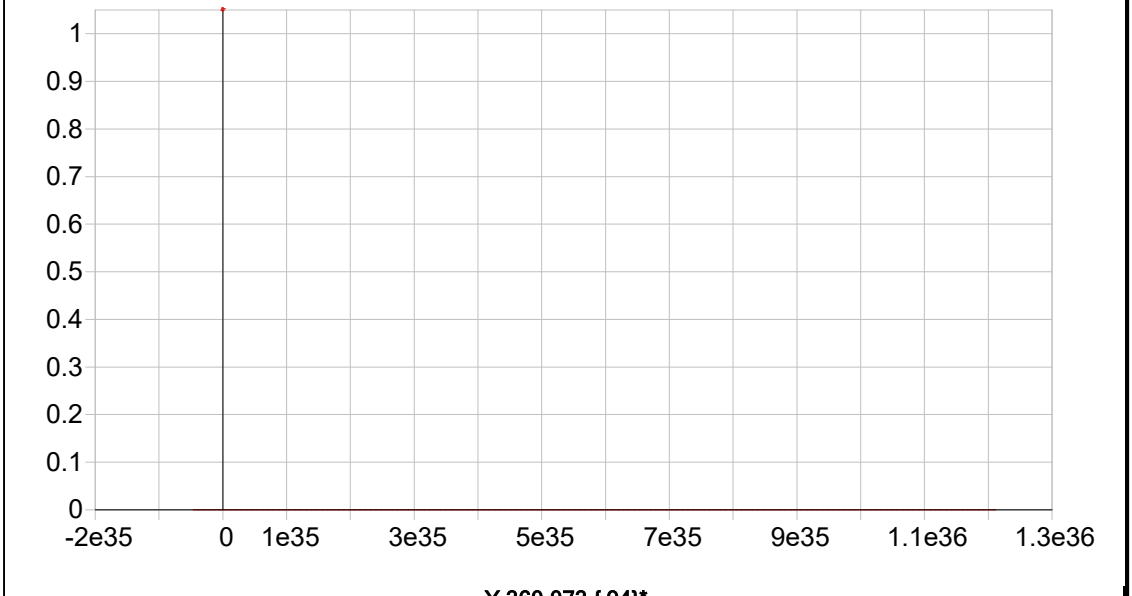


Y 224.306 {450}*

Date of Fit:	10/23/2025 13:03:18	Type of Fit:	Linear	Weighting:	1/Conc

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

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



Y 360.073 { 94}*

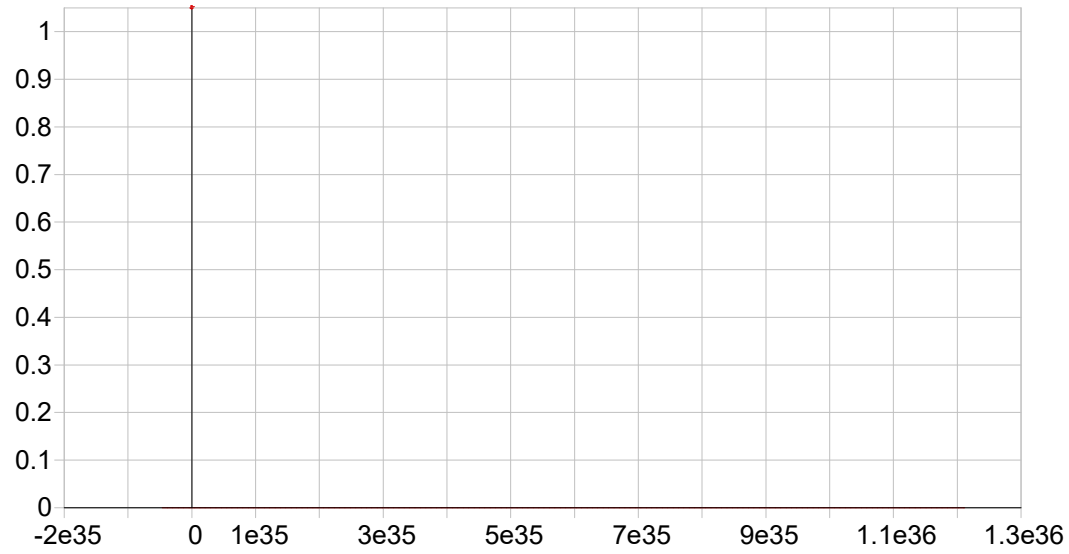
Date of Fit:	<not fit>	Type of Fit:	Linear	Weighting:	1/Conc

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

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

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

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

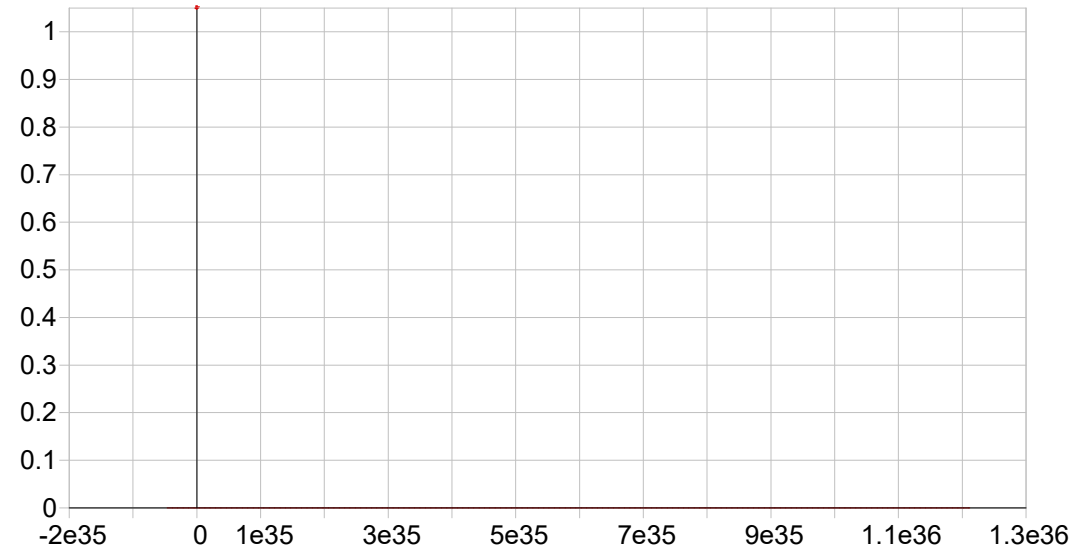


Y 371.030 { 91}*

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

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

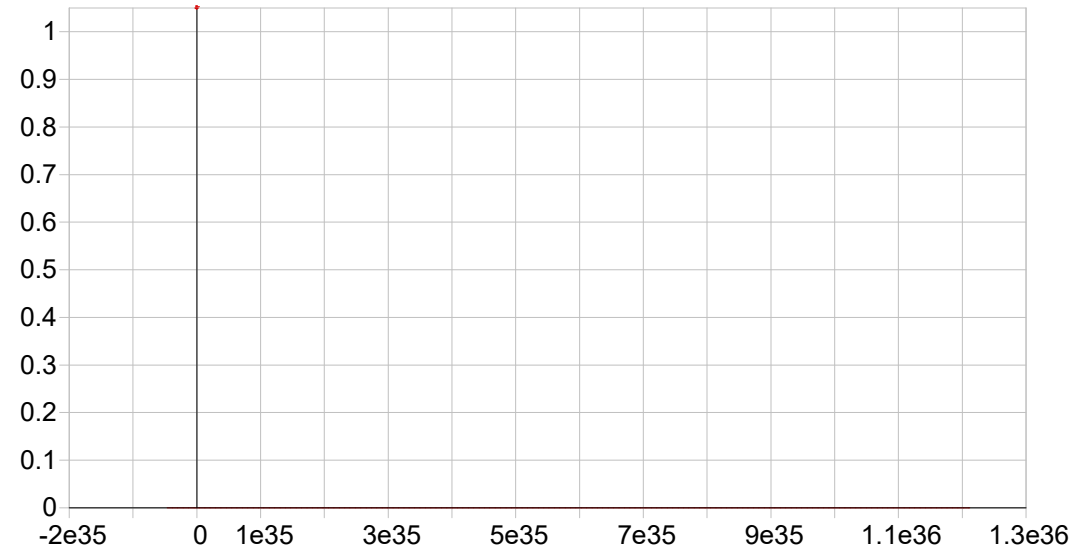
Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630



Y 224.306 {150}*

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

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



In 230.606 {446}*

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

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

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

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

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: S0 Acquired: 10/23/2025 12:40:44 Type: Cal
Method: 6010-200.7 NEW(v307) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.00003**	**.00078**	**-.00028**	**.00071**	**.00097**	**-.00058**	**.12605**	**-.00244**
Stddev	.00017	.00002	.00010	.00008	.00008	.00156	.00268	.00043
%RSD	501.99	2.3849	36.706	11.042	8.0483	269.84	2.1276	17.459
#1	.00012	.00077	-.00039	.00066	.00092	.00119	.12883	-.00196
#2	-.00022	.00080	-.00019	.00068	.00093	-.00176	.12348	-.00257
#3	-.00000	.00076	-.00027	.00080	.00106	-.00118	.12585	-.00279

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	**-.00036**	**.00074**	**.00015**	**.00028**	**.00075**	**.00002**	**.00021**	**.00016**
Stddev	.00017	.00042	.00002	.00025	.00033	.00003	.00043	.00074
%RSD	47.962	56.754	10.927	88.971	43.310	144.75	211.00	462.95
#1	-.00018	.00122	.00016	.00029	.00060	.00000	.00071	-.00069
#2	-.00038	.00044	.00014	.00053	.00053	.00001	-.00007	.00048
#3	-.00052	.00056	.00014	.00003	.00112	.00006	-.00002	.00070

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	**-.00063**	**-.00008**	**.00120**	**.00010**	**.00477**	**-.00101**	**.01625**	**.00064**
Stddev	.00009	.00007	.00008	.00023	.00052	.00014	.00069	.00001
%RSD	14.307	85.399	6.9885	227.14	10.826	13.345	4.2158	2.1335
#1	-.00067	-.00006	.00112	.00007	.00434	-.00110	.01692	.00066
#2	-.00068	-.00016	.00129	.00034	.00534	-.00108	.01628	.00063
#3	-.00052	-.00003	.00119	-.00011	.00464	-.00086	.01555	.00064

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	**.00377**	**.00240**	**.00005**	**-.00101**	**.00188**	**.01261**	**.00226**
Stddev	.00004	.00060	.00002	.00002	.00007	.00119	.00074
%RSD	.93959	25.148	36.492	2.4390	3.8810	9.4397	32.711
#1	.00379	.00294	.00007	-.00103	.00184	.01125	.00311
#2	.00373	.00250	.00004	-.00101	.00185	.01346	.00189
#3	.00379	.00175	.00004	-.00099	.00197	.01311	.00177

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: S0 Acquired: 10/23/2025 12:40:44 Type: Cal
Method: 6010-200.7 NEW(v307) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6579.5	96503.	6143.7	5208.6	8035.6
Stddev	18.8	659.	42.6	25.1	17.6
%RSD	.28525	.68263	.69343	.48224	.21919
#1	6561.8	96963.	6112.6	5229.0	8019.5
#2	6577.6	96798.	6192.3	5216.2	8033.0
#3	6599.2	95748.	6126.3	5180.5	8054.4

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: S1 Acquired: 10/23/2025 12:45:07 Type: Cal
Method: 6010-200.7 NEW(v307) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00101	.00286	.00245	.00164	.00542	.00901	.29602	.07531
Stddev	.00004	.00009	.00007	.00003	.00019	.00090	.00595	.00041
%RSD	4.3333	3.1387	2.7622	1.6817	3.4621	10.022	2.0100	.54225
#1	.00097	.00295	.00252	.00162	.00551	.00811	.30130	.07574
#2	.00106	.00277	.00239	.00168	.00521	.00992	.29718	.07525
#3	.00100	.00288	.00245	.00163	.00555	.00900	.28957	.07493

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	.01882	.12412	.00238	.03229	.01487	.00024	.00882	.02770
Stddev	.00032	.00064	.00010	.00014	.00025	.00002	.00011	.00063
%RSD	1.6985	.51449	4.2409	.42426	1.6488	8.5917	1.1982	2.2656
#1	.01847	.12412	.00229	.03244	.01510	.00024	.00888	.02698
#2	.01892	.12349	.00236	.03217	.01490	.00026	.00870	.02806
#3	.01908	.12476	.00249	.03227	.01461	.00022	.00888	.02807

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	.02400	.00184	.01266	.00479	.10285	.00527	.11020	.12610
Stddev	.00012	.00009	.00009	.00041	.00050	.00023	.00118	.00022
%RSD	.50854	5.0261	.67132	8.6658	.48300	4.3228	1.0743	.17190
#1	.02412	.00175	.01257	.00506	.10303	.00553	.11095	.12621
#2	.02401	.00183	.01268	.00431	.10229	.00511	.11081	.12585
#3	.02388	.00194	.01274	.00499	.10323	.00517	.10883	.12625

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	.00967	.01359	.00085	-.00009	.00233	.03054	.15735
Stddev	.00012	.00010	.00002	.00003	.00002	.00208	.00040
%RSD	1.2196	.70293	2.3936	35.478	.70661	6.8144	.25344
#1	.00974	.01370	.00085	-.00012	.00232	.03132	.15777
#2	.00954	.01352	.00087	-.00010	.00233	.02818	.15732
#3	.00974	.01354	.00083	-.00006	.00235	.03212	.15697

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: S1 Acquired: 10/23/2025 12:45:07 Type: Cal
Method: 6010-200.7 NEW(v307) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6928.1	100710.	6463.6	5404.1	8273.5
Stddev	18.7	560.	51.0	23.5	22.3
%RSD	.26927	.55648	.78924	.43557	.26961
#1	6937.2	100400.	6424.8	5390.1	8284.2
#2	6906.7	100370.	6444.7	5431.2	8247.8
#3	6940.5	101360.	6521.4	5390.9	8288.4

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: S2 Acquired: 10/23/2025 12:49:18 Type: Cal
Method: 6010-200.7 NEW(v307) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.04167**	**.04879**	**.18163**	**.03879**	**.07571**	**.14589**	**2.9511**	**.52486**
Stddev	.00006	.00052	.00033	.00020	.00016	.00019	.0147	.00230
%RSD	.13520	1.0728	.18097	.51291	.21352	.13305	.49963	.43832
#1	.04163	.04939	.18158	.03885	.07558	.14608	2.9632	.52737
#2	.04174	.04844	.18133	.03857	.07589	.14569	2.9553	.52436
#3	.04165	.04854	.18198	.03895	.07565	.14591	2.9347	.52286

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.3210**	**.25251**	**.03808**	**.44247**	**.14218**	**.00173**	**.17597**	**.05379**
Stddev	.0004	.00033	.00010	.00081	.00021	.00005	.00122	.00036
%RSD	.03316	.13154	.26818	.18418	.14842	2.6661	.69077	.66935
#1	1.3209	.25214	.03808	.44157	.14235	.00177	.17687	.05342
#2	1.3207	.25262	.03797	.44267	.14225	.00175	.17646	.05380
#3	1.3215	.25278	.03818	.44317	.14194	.00168	.17459	.05414

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	**.25599**	**.04204**	**.02441**	**.05300**	**1.0085**	**.01161**	**.81762**	**.53829**
Stddev	.00010	.00011	.00020	.00022	.0027	.00012	.00542	.00096
%RSD	.03935	.26669	.80511	.41282	.27076	1.0332	.66281	.17894
#1	.25588	.04216	.02461	.05324	1.0111	.01167	.82383	.53884
#2	.25601	.04194	.02422	.05282	1.0057	.01147	.81515	.53717
#3	.25607	.04201	.02441	.05292	1.0085	.01168	.81387	.53885

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	**.13344**	**.24782**	**.00194**	**.03799**	**.02595**	**.77192**	**6.1342**
Stddev	.00028	.00101	.00001	.00005	.00006	.00260	.0227
%RSD	.21287	.40865	.66388	.13656	.21950	.33646	.37019
#1	.13356	.24888	.00194	.03801	.02597	.77466	6.1579
#2	.13312	.24686	.00196	.03804	.02589	.77160	6.1322
#3	.13364	.24773	.00194	.03794	.02600	.76949	6.1126

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: S2 Acquired: 10/23/2025 12:49:18 Type: Cal
Method: 6010-200.7 NEW(v307) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6582.2	95524.	6166.6	5099.7	7710.0
Stddev	11.6	115.	33.3	5.3	15.6
%RSD	.17655	.11988	.53953	.10442	.20253
#1	6581.0	95547.	6132.7	5094.3	7706.6
#2	6571.3	95400.	6167.8	5099.8	7696.3
#3	6594.4	95626.	6199.2	5104.9	7727.0

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: S3 Acquired: 10/23/2025 12:53:22 Type: Cal
Method: 6010-200.7 NEW(v307) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.12741**	**.14662**	**.56031**	**.11651**	**.22620**	**.45743**	**8.7843**	**1.5909**
Stddev	.00026	.00162	.00142	.00024	.00048	.00107	.0085	.0062
%RSD	.20344	1.1041	.25255	.20243	.21224	.23394	.09672	.39086
#1	.12770	.14481	.56183	.11642	.22599	.45619	8.7925	1.5906
#2	.12733	.14714	.56008	.11678	.22675	.45806	8.7849	1.5848
#3	.12720	.14792	.55903	.11634	.22587	.45803	8.7756	1.5972

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	**4.1568**	**.76840**	**.11485**	**1.3690**	**.42670**	**.00518**	**.53017**	**.16375**
Stddev	.0066	.00172	.00019	.0020	.00278	.00004	.00045	.00090
%RSD	.15991	.22408	.16575	.14605	.65069	.75651	.08394	.55010
#1	4.1638	.76841	.11466	1.3713	.42471	.00520	.52966	.16479
#2	4.1505	.77012	.11505	1.3675	.42551	.00520	.53045	.16328
#3	4.1562	.76667	.11485	1.3682	.42987	.00513	.53041	.16318

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	**.79004**	**.12635**	**.07133**	**.16337**	**3.0512**	**.03742**	**2.4654**	**1.6198**
Stddev	.00165	.00025	.00046	.00112	.0077	.00008	.0087	.0017
%RSD	.20826	.19394	.64420	.68376	.25352	.21523	.35409	.10615
#1	.79129	.12607	.07134	.16273	3.0437	.03751	2.4659	1.6217
#2	.78817	.12650	.07178	.16272	3.0507	.03739	2.4564	1.6192
#3	.79065	.12649	.07087	.16466	3.0591	.03735	2.4738	1.6184

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	**.40187**	**.75292**	**.00562**	**.12260**	**.07857**	**2.2916**	**18.734**
Stddev	.00093	.00160	.00001	.00022	.00006	.0013	.023
%RSD	.23034	.21268	.19712	.17991	.08065	.05609	.12439
#1	.40274	.75393	.00562	.12270	.07851	2.2906	18.760
#2	.40090	.75375	.00563	.12235	.07858	2.2931	18.728
#3	.40197	.75107	.00561	.12275	.07863	2.2912	18.715

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: S3 Acquired: 10/23/2025 12:53:22 Type: Cal
Method: 6010-200.7 NEW(v307) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6882.8	100090.	6472.5	5349.7	7760.7
Stddev	19.9	334.	4.8	13.5	31.9
%RSD	.28862	.33358	.07456	.25274	.41050
#1	6861.2	100200.	6476.8	5363.2	7727.6
#2	6900.3	99721.	6473.4	5336.1	7791.2
#3	6886.9	100360.	6467.3	5349.9	7763.4

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: S4 Acquired: 10/23/2025 12:57:19 Type: Cal
Method: 6010-200.7 NEW(v307) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.27380	.30750	1.2196	.24639	.48006	.98851	19.291	3.3584
Stddev	.00091	.00230	.0037	.00112	.00173	.00084	.048	.0293
%RSD	.33248	.74733	.30653	.45570	.36036	.08483	.24631	.87284
#1	.27458	.30774	1.2230	.24741	.48132	.98899	19.238	3.3878
#2	.27401	.30967	1.2203	.24656	.48077	.98754	19.305	3.3580
#3	.27280	.30509	1.2156	.24519	.47808	.98899	19.330	3.3292

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9.0945	1.6582	.24247	2.9992	.89779	.01138	1.1549	.35171
Stddev	.0154	.0031	.00065	.0079	.00191	.00007	.0012	.00149
%RSD	.16981	.18676	.26827	.26277	.21279	.60125	.09996	.42499
#1	9.1095	1.6546	.24320	3.0056	.89928	.01135	1.1543	.35339
#2	9.0954	1.6602	.24197	3.0017	.89845	.01134	1.1542	.35121
#3	9.0786	1.6597	.24223	2.9904	.89563	.01146	1.1563	.35053

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	1.7243	.26909	.15947	.35692	6.5285	.08422	5.2237	3.4437
Stddev	.0037	.00095	.00170	.00100	.0056	.00085	.0461	.0106
%RSD	.21325	.35446	1.0684	.28153	.08514	1.0050	.88326	.30712
#1	1.7270	.26987	.15769	.35690	6.5339	.08333	5.2671	3.4545
#2	1.7257	.26936	.15965	.35793	6.5287	.08431	5.2286	3.4433
#3	1.7201	.26803	.16108	.35592	6.5228	.08501	5.1752	3.4334

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	.87198	1.6443	.01223	.27539	.17298	4.9611	41.023
Stddev	.00288	.0050	.00012	.00061	.00084	.0150	.231
%RSD	.32985	.30432	.96587	.22237	.48402	.30256	.56410
#1	.87514	1.6393	.01219	.27558	.17393	4.9466	41.160
#2	.87128	1.6442	.01213	.27471	.17235	4.9600	41.154
#3	.86951	1.6493	.01236	.27589	.17265	4.9766	40.756

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: S4 Acquired: 10/23/2025 12:57:19 Type: Cal
Method: 6010-200.7 NEW(v307) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6320.1	92580.	6041.4	4945.5	6883.6
Stddev	4.5	339.	52.6	33.9	8.7
%RSD	.07172	.36645	.87014	.68452	.12698
#1	6325.1	92404.	5980.9	4924.8	6891.2
#2	6318.7	92971.	6076.3	4984.5	6885.5
#3	6316.4	92366.	6066.9	4927.1	6874.0

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: S5 Acquired: 10/23/2025 13:01:22 Type: Cal
Method: 6010-200.7 NEW(v307) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.53236	.60591	2.4213	.47444	.93631	1.8790	37.639	6.3922
Stddev	.00124	.00356	.0021	.00093	.00128	.0049	.539	.0567
%RSD	.23291	.58677	.08454	.19551	.13688	.26054	1.4333	.88636
#1	.53181	.60251	2.4204	.47350	.93493	1.8763	38.146	6.4549
#2	.53378	.60960	2.4237	.47536	.93746	1.8760	37.699	6.3769
#3	.53150	.60564	2.4199	.47447	.93653	1.8847	37.072	6.3448

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	18.034	3.2096	.45883	5.9847	1.7337	.02251	2.2452	.68004
Stddev	.035	.0047	.00142	.0096	.0027	.00012	.0101	.00166
%RSD	.19286	.14693	.31051	.15993	.15873	.51830	.44818	.24438
#1	18.034	3.2145	.46047	5.9792	1.7336	.02245	2.2569	.67970
#2	18.069	3.2050	.45791	5.9957	1.7365	.02244	2.2394	.68185
#3	17.999	3.2092	.45810	5.9791	1.7310	.02265	2.2395	.67858

Elem	Ni2316	Ag3280	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.4318	.52231	.31603	.69052	12.428	.16840	10.047	6.6896
Stddev	.0048	.00149	.00204	.00235	.050	.00078	.097	.0161
%RSD	.14097	.28623	.64643	.34079	.40396	.46302	.96061	.24048
#1	3.4291	.52401	.31600	.69319	12.485	.16827	10.155	6.6906
#2	3.4374	.52123	.31400	.68874	12.402	.16769	10.013	6.7051
#3	3.4289	.52168	.31808	.68964	12.395	.16924	9.9717	6.6730

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	1.7265	3.1961	.02412	.55157	.34810	9.5420	80.033
Stddev	.0031	.0112	.00026	.00204	.00114	.0518	1.480
%RSD	.18127	.34886	1.0707	.36904	.32683	.54268	1.8493
#1	1.7244	3.2064	.02385	.55112	.34714	9.5854	81.524
#2	1.7301	3.1843	.02414	.55379	.34935	9.4847	78.564
#3	1.7249	3.1975	.02437	.54979	.34780	9.5559	80.012

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: S5 Acquired: 10/23/2025 13:01:22 Type: Cal
Method: 6010-200.7 NEW(v307) Mode: IR Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6231.9	92124.	6060.2	4924.2	6586.8
Stddev	23.5	204.	43.0	2.9	24.9
%RSD	.37679	.22168	.71018	.05801	.37868
#1	6206.0	92193.	6023.2	4926.9	6558.7
#2	6237.9	91894.	6050.1	4924.6	6595.7
#3	6251.8	92285.	6107.5	4921.2	6606.2

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: ICV01 Acquired: 10/23/2025 13:05:33 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.866076**	**3.802424**	**3.901426**	**3.914599**	**3.988353**	**7.587342**
Stddev	.010145	.125738	.003862	.006165	.008328	.046325
%RSD	.2624070	3.306790	.0989873	.1574994	.2088142	.6105607
#1	3.876510	3.795615	3.905744	3.920694	3.993697	7.569077
#2	3.856247	3.931428	3.900232	3.914737	3.978757	7.640016
#3	3.865472	3.680228	3.898302	3.908365	3.992605	7.552933

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**7.690743**	**.1951466**	**2.052611**	**19.21695**	**.7995925**	**1.939992**
Stddev	.056471	.0026230	.000656	.10185	.0004718	.000837
%RSD	.7342715	1.344096	.0319757	.5299906	.0590056	.0431537
#1	7.704118	.1957367	2.052981	19.24125	.7996528	1.940906
#2	7.739325	.1974242	2.052999	19.30445	.7990935	1.939263
#3	7.628785	.1922788	2.051853	19.10515	.8000313	1.939807

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9952588**	**3.981257**	**1.918558**	**19.09287**	**1.941461**	**1.009842**
Stddev	.0009503	.014807	.014683	.08043	.001223	.001709
%RSD	.0954877	.3719104	.7653175	.4212673	.0630183	.1692735
#1	.9956639	3.980880	1.925902	19.13564	1.942808	1.007977
#2	.9941731	3.966643	1.928121	19.14288	1.940417	1.011335
#3	.9959395	3.996249	1.901652	19.00009	1.941159	1.010215

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**18.86060**	**1.916295**	**1.971752**	**19.45425**	**3.839679**	**3.951701**
Stddev	.10515	.010074	.000964	.17173	.056749	.004431
%RSD	.5574955	.5256932	.0488865	.8827463	1.477955	.1121400
#1	18.84912	1.911586	1.970711	19.34305	3.847657	3.956792
#2	18.76167	1.927861	1.972613	19.36766	3.892017	3.948709
#3	18.97102	1.909437	1.971932	19.65204	3.779364	3.949601

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: ICV01 Acquired: 10/23/2025 13:05:33 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.869728**	**3.846216**	**3.670549**	F **.0054194**	F **.0218263**	F **-.000631**
Stddev	.005172	.024129	.036888	.0006272	.0018019	.000686
%RSD	.1336545	.6273318	1.004977	11.57414	8.255665	108.6345
#1	3.875474	3.846099	3.661324	.0059642	.0221755	-.000174
#2	3.868263	3.870402	3.639149	.0047337	.0234281	-.000300
#3	3.865446	3.822146	3.711174	.0055603	.0198754	-.001420

Elem	Sr4077
Units	ppm
Avg	F **-.003311**
Stddev	.000213
%RSD	6.435231
#1	-.003248
#2	-.003138
#3	-.003549

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6568.869**	**95172.21**	**6425.551**	**5104.786**	**7265.366**
Stddev	16.080	186.33	81.858	19.456	16.326
%RSD	.2447929	.1957847	1.273942	.3811307	.2247121
#1	6554.308	95058.96	6389.333	5083.758	7249.231
#2	6586.127	95387.26	6368.051	5122.149	7281.877
#3	6566.171	95070.40	6519.270	5108.451	7264.991

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: LLICV01 Acquired: 10/23/2025 13:14:59 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0220684	.0405383	.0131654	.0235994	.0517000	.0931972	.0986856
Stddev	.0009265	.0020658	.0002791	.0012696	.0005500	.0033174	.0019852
%RSD	4.198150	5.095823	2.120291	5.379620	1.063898	3.559531	2.011669
#1	.0228532	.0411371	.0134652	.0225244	.0517423	.0965431	.0996471
#2	.0210464	.0422386	.0131183	.0250001	.0511301	.0899090	.0964027
#3	.0223056	.0382393	.0129129	.0232738	.0522277	.0931397	.1000070

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0064843	.0059482	2.065779	.0109909	.0299164	.0225375	.1079570
Stddev	.0000596	.0000950	.006905	.0000801	.0002589	.0002733	.0179798
%RSD	.9194055	1.597320	.3342755	.7290737	.8655089	1.212670	16.65464
#1	.0065486	.0060567	2.060529	.0110752	.0298996	.0224375	.0937584
#2	.0064309	.0059080	2.073601	.0109157	.0301833	.0223282	.1019385
#3	.0064733	.0058799	2.063206	.0109818	.0296662	.0228467	.1281740

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0220851	2.120763	.0398137	.0106521	1.894021	.0363424	.0434643
Stddev	.0001984	.012442	.0002147	.0002001	.018983	.0016120	.0002293
%RSD	.8984061	.5866945	.5392933	1.878002	1.002258	4.435538	.5275075
#1	.0220388	2.134552	.0400127	.0106955	1.896073	.0380802	.0433755
#2	.0219139	2.117364	.0395861	.0108268	1.911895	.0348960	.0432926
#3	.0223026	2.110374	.0398423	.0104339	1.874095	.0360509	.0437246

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.035460	.1063450	.2028426	.0394374	.0378589	.3916599	.0185728
Stddev	.050248	.0019350	.0010564	.0003059	.0021421	.0064948	.0005656
%RSD	2.468645	1.819559	.5208077	.7755927	5.658004	1.658279	3.045466
#1	1.978697	.1082059	.2039064	.0390848	.0393814	.3900780	.0185017
#2	2.074252	.1064855	.2028275	.0396310	.0387858	.3861022	.0180461
#3	2.053430	.1043435	.2017938	.0395966	.0354095	.3987996	.0191707

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: LLICV01 Acquired: 10/23/2025 13:14:59 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0229814	.0193399	.0207061
Stddev	.0030768	.0025737	.0001143
%RSD	13.38807	13.30784	.5519188
#1	.0223530	.0181666	.0207407
#2	.0202673	.0222912	.0205786
#3	.0263238	.0175619	.0207991

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6578.859	95392.25	6332.272	5076.155	7834.666
Stddev	3.714	169.59	45.686	13.974	18.239
%RSD	.0564470	.1777818	.7214777	.2752937	.2327998
#1	6578.781	95557.15	6281.632	5068.433	7817.616
#2	6582.611	95218.33	6370.394	5092.286	7853.898
#3	6575.185	95401.27	6344.789	5067.746	7832.484

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: ICB01 Acquired: 10/23/2025 13:20:19 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005296	.0000942	-.000320	-.001790	.0002685	.0118962	-.001489
Stddev	.0004937	.0017940	.000574	.001250	.0020319	.0063940	.000756
%RSD	93.22955	1904.508	179.3296	69.80191	756.7468	53.74809	50.73009
#1	.0010397	-.001627	-.000675	-.002234	-.001953	.0070436	-.000816
#2	.0000541	-.000044	.000342	-.000379	.000727	.0191415	-.001346
#3	.0004950	.001953	-.000627	-.002757	.002032	.0095036	-.002306

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000560	-.000007	.0080211	.0002164	.0001119	.0002510	.0255058
Stddev	.0001017	.000008	.0095378	.0001694	.0001368	.0000927	.0013769
%RSD	181.7023	108.2280	118.9090	78.25450	122.2171	36.93919	5.398226
#1	.0001540	-.000016	-.002980	.0003122	.0000560	.0001445	.0241804
#2	-.000049	-.000001	.013967	.0000209	.0000119	.0003136	.0269289
#3	.000063	-.000005	.013076	.0003162	.0002678	.0002948	.0254079

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007160	-.011501	.0061913	.0004313	-.042818	-.001579	.0008832
Stddev	.0009366	.021722	.0001450	.0001799	.022550	.001165	.0001545
%RSD	130.8028	188.8759	2.341130	41.72219	52.66471	73.80438	17.49330
#1	.0017592	-.032173	.0060412	.0004654	-.041371	-.000242	.0009121
#2	.0004418	.011138	.0063304	.0005917	-.021026	-.002115	.0007163
#3	-.000053	-.013468	.0062024	.0002367	-.066056	-.002379	.0010212

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.062450	.0015214	.0001953	.0022240	-.002245	.0176759	.0000334
Stddev	.024388	.0005770	.0000307	.0001407	.003048	.0036754	.0005269
%RSD	39.05207	37.92344	15.71179	6.324005	135.7686	20.79308	1576.535
#1	-.086248	.0011337	.0001828	.0022759	-.004930	.0175626	.0003528
#2	-.063589	.0021845	.0002303	.0023313	-.002873	.0140585	.0003222
#3	-.037512	.0012461	.0001729	.0020648	.001068	.0214067	-.000575

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: ICB01 Acquired: 10/23/2025 13:20:19 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.002549**	**-.000284**	**-.000151**
Stddev	.000662	.002193	.000060
%RSD	25.97210	771.9399	39.83743
#1	-.001860	-.002683	-.000082
#2	-.002607	.000215	-.000174
#3	-.003181	.001616	-.000195

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6729.716**	**98256.62**	**6334.957**	**5288.510**	**8227.433**
Stddev	13.088	626.62	20.058	30.888	16.024
%RSD	.1944769	.6377398	.3166314	.5840643	.1947691
#1	6722.493	97642.76	6348.095	5253.057	8215.043
#2	6721.832	98231.82	6311.868	5309.617	8221.727
#3	6744.824	98895.27	6344.907	5302.855	8245.530

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CRI01 Acquired: 10/23/2025 13:24:38 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0219775	.0420193	.0108489	.0194927	.0489973	.0933278	.0928359
Stddev	.0012301	.0024292	.0007491	.0017051	.0003446	.0164026	.0007426
%RSD	5.596974	5.781051	6.904584	8.747553	.7033021	17.57528	.7999601
#1	.0231249	.0419950	.0110167	.0192899	.0487190	.0746878	.0936698
#2	.0206788	.0444606	.0100302	.0178980	.0488901	.1055562	.0922457
#3	.0221289	.0396024	.0114999	.0212901	.0493828	.0997393	.0925923

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0064135	.0056934	2.051009	.0102161	.0289321	.0211084	.1085419
Stddev	.0000435	.0000620	.007309	.0001503	.0002190	.0001632	.0101387
%RSD	.6779475	1.089598	.3563543	1.471536	.7569697	.7732802	9.340793
#1	.0064613	.0057492	2.042928	.0101250	.0290078	.0212934	.0972183
#2	.0063764	.0057044	2.057158	.0101336	.0291032	.0210471	.1167776
#3	.0064026	.0056266	2.052941	.0103896	.0286853	.0209847	.1116296

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0207299	2.103450	.0388891	.0101705	1.819770	.0373324	.0426095
Stddev	.0004211	.023722	.0005371	.0007034	.016677	.0014225	.0005791
%RSD	2.031177	1.127777	1.381143	6.916051	.9164284	3.810331	1.359112
#1	.0210115	2.087671	.0394334	.0107429	1.832592	.0369312	.0431791
#2	.0209322	2.091947	.0388744	.0093853	1.800917	.0361536	.0426281
#3	.0202458	2.130730	.0383595	.0103835	1.825802	.0389124	.0420214

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.905679	.1021374	.1964854	.0377840	.0357767	.3646863	.0188379
Stddev	.010811	.0013164	.0018118	.0004454	.0008115	.0107430	.0014031
%RSD	.5673249	1.288828	.9220955	1.178800	2.268085	2.945807	7.448510
#1	1.893467	.1033423	.1982978	.0380215	.0366892	.3523930	.0203222
#2	1.914028	.1023376	.1964844	.0380603	.0355048	.3722708	.0186584
#3	1.909542	.1007324	.1946742	.0372702	.0351361	.3693952	.0175332

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CRI01 Acquired: 10/23/2025 13:24:38 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0163875	.0190442	.0205355
Stddev	.0032953	.0018120	.0001436
%RSD	20.10871	9.514593	.6993263
#1	.0154961	.0172852	.0206752
#2	.0200369	.0209049	.0205432
#3	.0136297	.0189426	.0203882

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6716.814	97165.04	6222.907	5242.696	7988.590
Stddev	61.934	521.69	43.008	10.356	67.805
%RSD	.9220745	.5369106	.6911186	.1975341	.8487724
#1	6648.772	96749.15	6193.825	5234.612	7914.858
#2	6731.767	96995.59	6202.587	5254.369	8002.648
#3	6769.903	97750.40	6272.310	5239.106	8048.264

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: ICSA01 Acquired: 10/23/2025 13:28:48 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0088341**	**.0131088**	**-.002090**	**.0045055**	**-.003698**	**245.2416**
Stddev	.0017642	.0037820	.001690	.0017938	.002929	.5181
%RSD	19.97084	28.85055	80.85409	39.81372	79.21214	.2112594
#1	.0084410	.0131731	-.000448	.0062002	-.006756	245.6055
#2	.0072995	.0092950	-.001998	.0026268	-.003419	244.6484
#3	.0107617	.0168581	-.003825	.0046895	-.000918	245.4709

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0024475**	**.0018293**	**-.000071**	**235.6037**	**.0484827**	**.0019161**
Stddev	.0014866	.0001693	.000096	.3274	.0003188	.0001161
%RSD	60.74145	9.252619	136.2744	.1389594	.6575901	6.060015
#1	.0036369	.0016524	.000037	235.8835	.0482428	.0020297
#2	.0007809	.0018456	-.000102	235.2437	.0488445	.0017976
#3	.0029246	.0019898	-.000147	235.6840	.0483608	.0019210

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0123472**	**102.5487**	**.0064757**	**248.8846**	**.0039578**	**-.002449**
Stddev	.0004359	.4041	.0001470	.4171	.0001274	.000805
%RSD	3.530276	.3940496	2.269797	.1675960	3.219504	32.87092
#1	.0127400	102.2432	.0063517	249.1107	.0039077	-.001907
#2	.0124235	102.3960	.0064374	248.4033	.0038630	-.002067
#3	.0118782	103.0069	.0066380	249.1399	.0041026	-.003374

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1304824**	**-.000280**	**.0035495**	**.1625024**	**.0533844**	**.0008576**
Stddev	.0350163	.001299	.0005094	.0234942	.0028098	.0001120
%RSD	26.83601	464.2807	14.35089	14.45773	5.263379	13.05792
#1	.0900957	-.000551	.0041317	.1353829	.0512134	.0007320
#2	.1489944	-.001422	.0031858	.1766732	.0523819	.0008937
#3	.1523570	.001134	.0033311	.1754512	.0565580	.0009470

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: ICSA01 Acquired: 10/23/2025 13:28:48 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000519	-.002899	.0451378	.0027868	.0066891	F -.026300
Stddev	.000767	.001551	.0002940	.0023527	.0018129	.001928
%RSD	147.7780	53.49341	.6513576	84.42102	27.10217	7.332235
#1	.000309	-.004545	.0449587	.0046919	.0083186	-.028187
#2	-.001204	-.001465	.0454771	.0035116	.0047363	-.024333
#3	-.000661	-.002687	.0449777	.0001571	.0070125	-.026382

Elem	Sr4077
Units	ppm
Avg	-.000623
Stddev	.000572
%RSD	91.89457
#1	-.000119
#2	-.000504
#3	-.001245

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5952.018	83913.25	6051.858	4568.999	6141.936
Stddev	7.167	403.30	17.776	12.774	7.632
%RSD	.1204166	.4806136	.2937342	.2795762	.1242574
#1	5943.893	84375.16	6050.768	4581.338	6133.703
#2	5957.443	83733.55	6034.651	4555.831	6148.775
#3	5954.719	83631.04	6070.154	4569.827	6143.329

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: ICSAB01 Acquired: 10/23/2025 13:39:03 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1069196	.1188784	.0459839	.0557068	.5929249	242.8809
Stddev	.0026505	.0088720	.0016468	.0053648	.0054919	1.8880
%RSD	2.479006	7.463095	3.581351	9.630347	.9262379	.7773561
#1	.1038882	.1250543	.0471935	.0618870	.5948597	242.0541
#2	.1088006	.1228690	.0441084	.0529838	.5971875	245.0413
#3	.1080699	.1087119	.0466498	.0522497	.5867274	241.5472

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4834753	.5110374	.9940922	233.2937	.5500706	.4985059
Stddev	.0035278	.0016692	.0019309	1.6903	.0023845	.0006485
%RSD	.7296765	.3266244	.1942380	.7245396	.4334843	.1300855
#1	.4809747	.5124629	.9951034	232.7163	.5520213	.4992535
#2	.4875105	.5114480	.9953074	235.1970	.5507779	.4981700
#3	.4819407	.5092012	.9918657	231.9677	.5474124	.4980943

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4849581	100.6699	.4887478	245.6731	.9928133	.2062812
Stddev	.0001638	.3977	.0040339	1.6958	.0015852	.0010455
%RSD	.0337800	.3950645	.8253580	.6902653	.1596642	.5068139
#1	.4851049	100.5675	.4879433	245.4662	.9939873	.2061214
#2	.4849879	101.1088	.4931234	247.4629	.9934425	.2073973
#3	.4847814	100.3334	.4851768	244.0903	.9910102	.2053247

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0468090	.4789464	1.031718	-.086307	.9717820	.9592830
Stddev	.0380863	.0044282	.002615	.029359	.0023148	.0030436
%RSD	81.36522	.9245673	.2534227	34.01680	.2382025	.3172787
#1	.0576739	.4810683	1.034602	-.073654	.9736038	.9614542
#2	.0782824	.4819144	1.031050	-.065396	.9725650	.9605907
#3	.0044709	.4738566	1.029503	-.119871	.9691773	.9558041

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: ICSAB01 Acquired: 10/23/2025 13:39:03 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9742535	.9419990	1.016974	F .0071773	F .0112900	F -.027263
Stddev	.0030083	.0043421	.004631	.0017008	.0021500	.000120
%RSD	.3087771	.4609406	.4553804	23.69680	19.04346	.4397281
#1	.9774480	.9429937	1.012366	.0069922	.0136826	-.027310
#2	.9738378	.9457575	1.021627	.0089632	.0095198	-.027351
#3	.9714747	.9372459	1.016930	.0055767	.0106677	-.027126

Elem	Sr4077
Units	ppm
Avg	F .0003776
Stddev	.0004116
%RSD	108.9979
#1	.0002352
#2	.0008415
#3	.0000561

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6083.062	85850.69	6146.641	4683.993	6269.210
Stddev	13.054	561.81	42.065	29.393	9.212
%RSD	.2145904	.6544030	.6843499	.6275144	.1469415
#1	6084.947	85235.08	6099.461	4651.270	6266.863
#2	6069.168	86335.69	6180.227	4708.154	6261.399
#3	6095.070	85981.30	6160.236	4692.555	6279.369

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: ICSA01DLX20 Acquired: 10/23/2025 13:43:44 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006053	.0017756	-.000014	.0001186	-.001670	13.13309	-.003344
Stddev	.0017482	.0017335	.001274	.0013030	.000837	.07161	.002255
%RSD	288.8374	97.63110	8920.624	1098.766	50.12418	.5452813	67.42191
#1	.0015946	.0012735	-.001401	.0007337	-.002459	13.08470	-.005660
#2	.0016345	.0037047	.000255	-.001378	-.001760	13.21536	-.001155
#3	-.001413	.0003485	.001104	.001000	-.000792	13.09922	-.003218

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001500	-.000076	13.04513	.0025144	.0000131	.0009619	5.330757
Stddev	.0000921	.000053	.07067	.0000930	.0000626	.0002457	.069624
%RSD	61.38854	70.02709	.5417303	3.698231	478.8376	25.54188	1.306081
#1	.0001106	-.000117	13.02841	.0024187	-.000055	.0012187	5.318780
#2	.0002551	-.000016	13.12267	.0026044	.000025	.0009380	5.267899
#3	.0000841	-.000095	12.98433	.0025203	.000069	.0007290	5.405593

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002706	13.55965	-.000131	.0003044	-.069446	-.002284	.0000166
Stddev	.0006992	.05822	.000281	.0005593	.005883	.002474	.0001234
%RSD	258.4070	.4293325	214.0108	183.7690	8.471897	108.3225	741.5273
#1	.0002736	13.56678	-.000378	.0002378	-.062760	-.001738	.0001536
#2	-.000430	13.61397	.000175	-.000219	-.073833	-.004986	-.000086
#3	.000968	13.49819	-.000191	.000894	-.071744	-.000128	-.000018

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.167635	-.003845	.0001069	.0005948	.0008343	.0149793	.0004825
Stddev	.022245	.000352	.0000776	.0003791	.0021003	.0107065	.0005549
%RSD	13.27015	9.159192	72.63344	63.73510	251.7597	71.47523	114.9913
#1	-.144750	-.003728	.0001960	.0004467	.0013342	.0124842	.0002444
#2	-.168976	-.004240	.0000703	.0003122	-.001471	.0057407	.0011168
#3	-.189180	-.003565	.0000542	.0010257	.002640	.0267130	.0000865

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: ICSA01DLX20 Acquired: 10/23/2025 13:43:44 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSA01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0012866	-.005942	.0002274
Stddev	.0011891	.002460	.0001549
%RSD	92.42440	41.39408	68.08394
#1	.0018212	-.004648	.0003836
#2	-.000076	-.008779	.0002247
#3	.002115	-.004400	.0000740

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6570.499	94788.25	6260.784	5139.425	7618.516
Stddev	12.382	132.31	89.170	21.117	12.909
%RSD	.1884526	.1395869	1.424257	.4108884	.1694416
#1	6557.950	94742.87	6242.040	5121.977	7607.978
#2	6570.841	94684.61	6182.477	5133.398	7614.655
#3	6582.707	94937.29	6357.836	5162.901	7632.915

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: ICSAB01DLX20 Acquired: 10/23/2025 13:47:58 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055668	.0067389	.0035411	.0017585	.0283802	12.17597	.0244147
Stddev	.0020409	.0056800	.0006547	.0018365	.0012544	.00879	.0002926
%RSD	36.66261	84.28638	18.48708	104.4334	4.419835	.0721964	1.198647
#1	.0047298	.0017982	.0035206	.0025828	.0270215	12.17740	.0241196
#2	.0040774	.0054737	.0042058	-.000346	.0286249	12.16655	.0247048
#3	.0078932	.0129448	.0028970	.003038	.0294942	12.18395	.0244196

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0258758	.0470456	12.01675	.0279634	.0237572	.0259933	4.795457
Stddev	.0000705	.0001041	.04655	.0000614	.0000232	.0003885	.013063
%RSD	.2722499	.2212377	.3873575	.2195421	.0978010	1.494688	.2724087
#1	.0258145	.0469329	11.96474	.0280251	.0237821	.0256143	4.809911
#2	.0259528	.0470659	12.05451	.0279023	.0237536	.0263907	4.791964
#3	.0258602	.0471381	12.03099	.0279627	.0237360	.0259748	4.784495

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0250752	12.55158	.0476464	.0101508	-.083306	.0220809	.0506634
Stddev	.0001712	.03937	.0003408	.0003440	.022329	.0060033	.0000900
%RSD	.6825432	.3136662	.7152959	3.388676	26.80304	27.18766	.1776476
#1	.0248862	12.53830	.0473301	.0103739	-.109042	.0269330	.0505673
#2	.0252197	12.52056	.0476016	.0103238	-.071795	.0153674	.0507457
#3	.0251198	12.59587	.0480073	.0097546	-.069083	.0239423	.0506772

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.173382	.0439254	.0505895	.0481751	.0451123	.0475567	-.000238
Stddev	.046775	.0004948	.0000931	.0000775	.0002032	.0046289	.000650
%RSD	26.97790	1.126369	.1839881	.1608518	.4504644	9.733464	273.0534
#1	-.144890	.0434454	.0505030	.0482637	.0450280	.0489360	-.000978
#2	-.147891	.0444337	.0505776	.0481417	.0453441	.0423949	.000239
#3	-.227365	.0438970	.0506880	.0481199	.0449648	.0513392	.000025

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: ICSAB01DLX20 Acquired: 10/23/2025 13:47:58 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: ICSAB01DLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0030496	-.003899	.0002789
Stddev	.0016779	.001834	.0000791
%RSD	55.02018	47.02623	28.36729
#1	.0035354	-.002169	.0003041
#2	.0044310	-.003706	.0001903
#3	.0011824	-.005821	.0003425

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6566.221	95959.69	6261.932	5141.774	7628.183
Stddev	12.213	392.85	22.695	36.889	6.065
%RSD	.1860016	.4093951	.3624226	.7174358	.0795054
#1	6577.175	95798.90	6265.561	5165.366	7635.141
#2	6553.052	95672.74	6237.642	5099.264	7624.013
#3	6568.438	96407.43	6282.594	5160.693	7625.396

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCV01 Acquired: 10/23/2025 13:52:06 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.250177**	**5.301400**	**5.163403**	**5.332568**	**5.268494**	**10.09434**	**9.899007**
Stddev	.026607	.434221	.005077	.039102	.016677	.04008	.020161
%RSD	.5067918	8.190690	.0983283	.7332624	.3165446	.3970737	.2036674
#1	5.265707	5.609864	5.158014	5.350057	5.263319	10.04905	9.920722
#2	5.265370	5.489491	5.168096	5.359873	5.287144	10.12524	9.880882
#3	5.219454	4.804844	5.164099	5.287774	5.255017	10.10873	9.895418

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2599174**	**2.582248**	**25.34755**	**1.058456**	**2.573886**	**1.302036**	**5.106554**
Stddev	.0027450	.003330	.06107	.003915	.003668	.001240	.031325
%RSD	1.056112	.1289523	.2409285	.3698882	.1425069	.0952647	.6134361
#1	.2567682	2.580120	25.30224	1.054179	2.571931	1.300754	5.140275
#2	.2618032	2.586085	25.32341	1.061863	2.578117	1.303231	5.101027
#3	.2611810	2.580538	25.41700	1.059326	2.571610	1.302122	5.078360

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.475348**	**25.28678**	**2.581370**	**1.304003**	**24.28492**	**2.529663**	**2.617675**
Stddev	.003494	.05753	.002278	.002998	.20925	.006928	.011747
%RSD	.1411355	.2275078	.0882483	.2299417	.8616444	.2738558	.4487446
#1	2.471649	25.23950	2.579047	1.302643	24.51105	2.524697	2.605936
#2	2.475804	25.35083	2.583600	1.301925	24.09814	2.526713	2.617659
#3	2.478591	25.27001	2.581465	1.307440	24.24556	2.537577	2.629429

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.22871**	**5.134650**	**5.193001**	**5.118612**	**4.992686**	**5.155490**	**5.250242**
Stddev	.20665	.043889	.012813	.029797	.004119	.010303	.031549
%RSD	.8191209	.8547675	.2467347	.5821356	.0824968	.1998485	.6009077
#1	25.45408	5.084051	5.200074	5.131650	4.991227	5.164313	5.272233
#2	25.04812	5.157475	5.200719	5.139669	4.997336	5.144167	5.264399
#3	25.18391	5.162423	5.178211	5.084518	4.989495	5.157989	5.214094

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCV01 Acquired: 10/23/2025 13:52:06 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.188019	4.828861	4.999028
Stddev	.094163	.009028	.117815
%RSD	1.815014	.1869601	2.356755
#1	5.237867	4.831289	4.951306
#2	5.246781	4.818867	4.912562
#3	5.079411	4.836427	5.133218

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6297.137	91751.82	6176.779	4852.585	6878.289
Stddev	11.467	177.70	58.991	38.620	11.541
%RSD	.1821024	.1936739	.9550490	.7958606	.1677874
#1	6287.198	91880.67	6241.971	4897.064	6866.065
#2	6309.683	91549.10	6127.082	4827.567	6888.997
#3	6294.529	91825.68	6161.283	4833.125	6879.805

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCB01 Acquired: 10/23/2025 13:57:18 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011432**	**.0010242**	**.0008311**	**-.000613**	**-.001496**	**-.000978**	**.0007324**
Stddev	.0003246	.0023722	.0003864	.000821	.001547	.004077	.0002519
%RSD	28.39478	231.6137	46.49177	133.8410	103.3853	416.8651	34.39789
#1	.0014738	-.001581	.0005850	-.000887	-.002867	.003585	.0005955
#2	.0011309	.001592	.0006318	.000310	.000181	-.004263	.0005786
#3	.0008249	.003061	.0012764	-.001262	-.001802	-.002256	.0010232

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000317**	**.0000225**	**-.007437**	**.0001614**	**.0000606**	**-.000153**	**.0094431**
Stddev	.0000298	.0000276	.017765	.0000156	.0000324	.000205	.0054775
%RSD	94.00519	122.8324	238.8869	9.656098	53.40462	134.3412	58.00536
#1	.0000608	.0000369	-.027590	.0001444	.0000241	-.000220	.0032061
#2	.0000013	-.000009	.005956	.0001646	.0000721	-.000315	.0116519
#3	.0000329	.000040	-.000676	.0001751	.0000857	.000078	.0134714

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0003575**	**-.007995**	**-.000190**	**.0002289**	**-.098386**	**-.003607**	**.0062189**
Stddev	.0004873	.026008	.000120	.0006940	.012951	.001482	.0001467
%RSD	136.2946	325.3239	62.90871	303.2456	13.16392	41.07724	2.358207
#1	-.000205	-.033397	-.000138	.0004307	-.109910	-.002436	.0063585
#2	.000640	.018580	-.000105	-.000544	-.100878	-.003113	.0062321
#3	.000638	-.009167	-.000327	.000800	-.084369	-.005272	.0060661

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.145589**	**-.002247**	**.0002113**	**.0085531**	**-.000825**	**.0146133**	**.0004472**
Stddev	.037519	.000882	.0000294	.0002785	.001246	.0061942	.0011713
%RSD	25.77035	39.26451	13.89808	3.256319	150.9631	42.38767	261.9286
#1	-.119753	-.002012	.0002024	.0088228	.000606	.0118352	-.000323
#2	-.128390	-.003223	.0001875	.0085701	-.001413	.0102944	.001795
#3	-.188624	-.001506	.0002442	.0082665	-.001669	.0217103	-.000131

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCB01 Acquired: 10/23/2025 13:57:18 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0014603	-.003768	-.000040
Stddev	.0012225	.001409	.000087
%RSD	83.71260	37.39887	218.7080
#1	.0014001	-.002661	.000002
#2	.0027118	-.005354	-.000140
#3	.0002691	-.003288	.000019

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6675.237	96511.44	6405.483	5103.851	8129.231
Stddev	3.253	298.44	11.258	17.542	15.225
%RSD	.0487339	.3092303	.1757497	.3436942	.1872897
#1	6672.041	96711.15	6413.697	5094.554	8122.522
#2	6675.126	96654.80	6392.651	5124.084	8118.513
#3	6678.544	96168.36	6410.102	5092.915	8146.659

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: LR-1 Acquired: 10/23/2025 14:01:35 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0036276	.0173804	-.002505	-.015725	.0248074	.4995269	.0142960
Stddev	.0037106	.0023211	.000616	.002434	.0047087	.0155344	.0022180
%RSD	102.2872	13.35449	24.57763	15.47537	18.98109	3.109829	15.51454
#1	.0061979	.0158350	-.001794	-.016445	.0302441	.4818323	.0163317
#2	-.000626	.0162569	-.002883	-.013013	.0220288	.5109227	.0119323
#3	.005311	.0200495	-.002836	-.017718	.0221492	.5058257	.0146240

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010503	.0014442	2285.365	.0614082	.0075105	.0118967	.9771978
Stddev	.0001076	.0001348	45.238	.0001821	.0001010	.0007658	.0064138
%RSD	10.23998	9.332453	1.979479	.2966127	1.345056	6.437091	.6563517
#1	.0009266	.0013892	2334.434	.0612895	.0075404	.0119646	.9713020
#2	.0011029	.0015978	2276.346	.0616179	.0073979	.0110992	.9840273
#3	.0011214	.0013457	2245.316	.0613172	.0075932	.0126263	.9762640

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0324322	2306.916	.0469897	.0035524	2360.485	.0124952	.0856617
Stddev	.0003795	15.430	.0010284	.0003374	23.477	.0057175	.0006650
%RSD	1.170009	.6688738	2.188601	9.496734	.9946005	45.75741	.7763521
#1	.0326217	2323.495	.0481745	.0033492	2371.898	.0103146	.0855522
#2	.0319953	2304.280	.0463271	.0033662	2333.483	.0189822	.0863746
#3	.0326796	2292.974	.0464676	.0039419	2376.074	.0081889	.0850581

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.676308	.0064550	.0126213	-.009095	-.091992	.0057002	.0192782
Stddev	.493299	.0012381	.0005028	.001112	.001827	.0065561	.0030725
%RSD	18.43208	19.18068	3.984037	12.22638	1.985604	115.0153	15.93758
#1	2.172643	.0070981	.0130753	-.008253	-.093854	-.000842	.0158349
#2	2.697739	.0072392	.0127077	-.008676	-.090204	.012270	.0202597
#3	3.158543	.0050277	.0120809	-.010356	-.091918	.005672	.0217400

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: LR-1 Acquired: 10/23/2025 14:01:35 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2628230	-.337178	.0610313
Stddev	.0011382	.014360	.0000784
%RSD	.4330513	4.258912	.1284356
#1	.2618847	-.352202	.0610917
#2	.2624953	-.335740	.0610596
#3	.2640891	-.323590	.0609428

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4435.986	65865.30	5449.787	3502.069	4429.399
Stddev	3.564	124.46	62.652	5.398	7.969
%RSD	.0803345	.1889640	1.149619	.1541291	.1799088
#1	4432.051	65745.05	5380.173	3506.300	4420.985
#2	4438.996	65993.59	5467.547	3503.916	4436.833
#3	4436.911	65857.27	5501.642	3495.990	4430.377

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: LR-2 Acquired: 10/23/2025 14:06:01 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1156398	-.069426	.1870937	.0339020	-.194581	1939.325	.0200722
Stddev	.0065027	.009146	.0043824	.0075259	.006642	16.267	.0008629
%RSD	5.623251	13.17399	2.342368	22.19902	3.413701	.8387852	4.298856
#1	.1188485	-.061952	.1866182	.0425920	-.191518	1930.135	.0198626
#2	.1081564	-.066700	.1829685	.0296030	-.202202	1929.733	.0193334
#3	.1199145	-.079625	.1916945	.0295109	-.190022	1958.107	.0210205

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0494531	-.013799	7.691815	-.318109	.0697785	.2124486	2783.121
Stddev	.0004372	.001670	.027988	.003285	.0001810	.0205836	30.575
%RSD	.8840259	12.10085	.3638682	1.032674	.2594412	9.688763	1.098582
#1	.0492583	-.013253	7.713787	-.315120	.0699597	.2285512	2759.571
#2	.0491471	-.012471	7.701354	-.317580	.0697780	.2195371	2772.118
#3	.0499538	-.015674	7.660304	-.321626	.0695977	.1892574	2817.675

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.258076	1.051532	.0529917	^ *****	4.042716	.0561694	.0179065
Stddev	.000322	.002334	.0007341	-----	.056410	.0040167	.0027384
%RSD	.1249491	.2219367	1.385336	-----	1.395343	7.151099	15.29276
#1	-.258041	1.049007	.0521847	^ -----	3.986098	.0597817	.0176877
#2	-.257773	1.053609	.0536198	^ -----	4.043135	.0568826	.0207477
#3	-.258415	1.051980	.0531708	^ -----	4.098915	.0518438	.0152840

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1916.883	^ *****	-.013656	.0151124	.0031848	.5253322	.0830173
Stddev	11.770	-----	.000336	.0012797	.0015267	.0075434	.0013578
%RSD	.6140338	-----	2.462729	8.467579	47.93586	1.435925	1.635601
#1	1921.557	^ -----	-.013419	.0157610	.0019737	.5329283	.0814816
#2	1903.493	^ -----	-.013509	.0136384	.0048997	.5252255	.0835118
#3	1925.598	^ -----	-.014041	.0159379	.0026810	.5178427	.0840586

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: LR-2 Acquired: 10/23/2025 14:06:01 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.404949	.2982427	-2.66840
Stddev	.019027	.0033325	.02947
%RSD	4.698654	1.117365	1.104500
#1	-.396402	.2954084	-2.64563
#2	-.391693	.2974058	-2.65788
#3	-.426751	.3019138	-2.70169

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5544.300	76024.30	5799.037	4305.776	4477.999
Stddev	2.590	192.50	30.288	14.869	4.893
%RSD	.0467122	.2532035	.5222955	.3453205	.1092655
#1	5543.915	76194.49	5828.153	4322.330	4479.204
#2	5541.925	76063.02	5801.258	4293.555	4472.616
#3	5547.061	75815.39	5767.699	4301.443	4482.176

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: LR-3 Acquired: 10/23/2025 14:10:25 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0928469**	**.0427672**	**227.0532**	**.0069862**	**.1956758**	**.0926788**	**-.002341**
Stddev	.0015575	.0033131	3.0215	.0025174	.0128441	.0070118	.002637
%RSD	1.677478	7.746835	1.330753	36.03372	6.563969	7.565665	112.6783
#1	.0932636	.0406992	228.4978	.0098239	.1976473	.0987862	.000625
#2	.0911235	.0465885	229.0812	.0050215	.2074202	.0942284	-.004424
#3	.0941537	.0410139	223.5805	.0061132	.1819600	.0850219	-.003223

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.006349**	**-.001120**	**.4735556**	**24.31198**	**.0062939**	**52.75049**	**.1765708**
Stddev	.000037	.000037	.0148625	.16103	.0000571	1.09458	.0052295
%RSD	.5892466	3.278881	3.138487	.6623472	.9074251	2.075014	2.961698
#1	-.006309	-.001083	.4895774	24.30137	.0063424	53.26873	.1709070
#2	-.006384	-.001157	.4602184	24.15651	.0063083	53.48970	.1775890
#3	-.006354	-.001119	.4708710	24.47805	.0062309	51.49303	.1812162

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**51.75437**	**.0111264**	**23.32252**	**.0034580**	**1.588129**	**-.032383**	**32.91726**
Stddev	.43041	.0305932	.44182	.0002982	.039025	.002679	.30702
%RSD	.8316425	274.9593	1.894412	8.622962	2.457291	8.271714	.9327123
#1	51.25825	.0338077	23.52581	.0036361	1.562576	-.029508	33.27042
#2	51.97679	.0232404	23.62611	.0036241	1.633050	-.034809	32.76758
#3	52.02805	-.023669	22.81564	.0031137	1.568761	-.032831	32.71378

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.9451109**	**-.004520**	**-.018514**	**-.000304**	**-.042672**	**-.112475**	**.2052555**
Stddev	.0186486	.000274	.000484	.000605	.001872	.003546	.0015470
%RSD	1.973166	6.060510	2.615050	198.8959	4.387990	3.153032	.7536833
#1	.9620724	-.004263	-.018860	-.000141	-.040977	-.108435	.2045454
#2	.9481193	-.004808	-.018722	.000203	-.044682	-.115074	.2070301
#3	.9251410	-.004489	-.017961	-.000974	-.042357	-.113915	.2041911

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: LR-3 Acquired: 10/23/2025 14:10:25 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1013651	.0091912	.0005134
Stddev	.0070363	.0014779	.0000959
%RSD	6.941526	16.07909	18.68702
#1	.1002409	.0107425	.0005718
#2	.1088957	.0077997	.0005658
#3	.0949585	.0090314	.0004027

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6171.369	97738.69	6439.934	4928.347	7784.598
Stddev	71.865	235.55	38.014	10.853	78.587
%RSD	1.164492	.2409951	.5902832	.2202151	1.009516
#1	6130.667	97577.51	6411.567	4916.263	7741.740
#2	6129.094	98009.01	6483.127	4931.511	7736.757
#3	6254.347	97629.55	6425.109	4937.266	7875.296

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3398-01 Acquired: 10/23/2025 14:15:16 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k .5030547	s 6.523119	sF -13.8171	k -.010194	k 3.395124	6.417897
Stddev	.0047280	.089999	1.8110	.004593	.028892	.137125
%RSD	.9398619	1.379689	13.10731	45.05747	.8509840	2.136600
#1	k .5066070	s 6.466933	s -12.2456	k -.015481	k 3.364423	6.264121
#2	k .4976883	s 6.475501	s -13.4079	k -.007195	k 3.399167	6.527465
#3	k .5048689	s 6.626923	s -15.7977	k -.007904	k 3.421781	6.462103

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0019829	^ *****	s -.765637	2.398849	k 3.787471	^ *****
Stddev	.0005104	-----	.095732	.005053	.012769	-----
%RSD	25.74303	-----	12.50360	.2106389	.3371285	-----
#1	.0025486	^ -----	s -.683530	2.393084	k 3.797872	^ -----
#2	.0015567	^ -----	s -.742594	2.400956	k 3.791320	^ -----
#3	.0018433	^ -----	s -.870788	2.402508	k 3.773221	^ -----

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	k 1.952445	k 4.142803	k .0121796	F -12.4057	^ *****	k -.056817
Stddev	.027107	.015008	.0009653	.0732	-----	.000620
%RSD	1.388344	.3622690	7.925686	.5903225	-----	1.091209
#1	k 1.927153	k 4.128903	k .0110724	-12.3262	^ -----	k -.056276
#2	k 1.949123	k 4.140792	k .0128448	-12.4207	^ -----	k -.056681
#3	k 1.981060	k 4.158716	k .0126215	-12.4703	^ -----	k -.057494

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1420.573	^ *****	k -.292671	31.66235	kF 26.81650	F 648.0229
Stddev	10.000	-----	.003522	.12895	.03646	1.7099
%RSD	.7039658	-----	1.203465	.4072571	.1359578	.2638681
#1	1422.827	^ -----	k -.294505	31.57630	k 26.78003	647.3438
#2	1409.638	^ -----	k -.294897	31.60014	k 26.85295	646.7569
#3	1429.254	^ -----	k -.288610	31.81061	k 26.81653	649.9681

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3398-01 Acquired: 10/23/2025 14:15:16 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	s .1543323	k .1163793	k 5.079020	s 4.614283	sF 481.3772	k .0086992
Stddev	.0112843	.0015628	.063902	.580048	60.1880	.0034292
%RSD	7.311694	1.342877	1.258158	12.57071	12.50330	39.41984
#1	s .1420187	k .1156533	k 5.079803	s 4.130726	s 431.4858	k .0071738
#2	s .1567989	k .1181731	k 5.142527	s 4.454708	s 464.4215	k .0062973
#3	s .1641793	k .1153116	k 5.014730	s 5.257416	s 548.2244	k .0126264

Elem	Sr4077
Units	ppm
Avg	k .0182531
Stddev	.0001624
%RSD	.8894761
#1	k .0183434
#2	k .0180656
#3	k .0183502

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3295.334	77552.37	5955.117	2420.946	^ *****
Stddev	20.041	177.47	32.416	17.631	-----
%RSD	.6081543	.2288381	.5443393	.7282612	-----
#1	3309.624	77703.22	5992.186	2420.182	^ -----
#2	3303.953	77356.83	5941.082	2403.709	^ -----
#3	3272.426	77597.06	5932.084	2438.946	^ -----

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170190BS Acquired: 10/23/2025 14:23:52 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7151848**	**1.761109**	**.8575924**	**1.801686**	**.7291143**	**1.835039**
Stddev	.0012672	.030908	.0018748	.002464	.0026025	.005593
%RSD	.1771868	1.755013	.2186134	.1367482	.3569393	.3047770
#1	.7138461	1.729143	.8558214	1.802017	.7295853	1.832227
#2	.7153424	1.763347	.8573997	1.799073	.7314491	1.831409
#3	.7163658	1.790837	.8595561	1.803967	.7263085	1.841479

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1799461**	**.1936641**	**.1717846**	**.9391656**	**.3673593**	**.1758535**
Stddev	.0031690	.0013574	.0002894	.0089598	.0005312	.0003464
%RSD	1.761078	.7009184	.1684685	.9540144	.1446080	.1969817
#1	.1770420	.1938023	.1714808	.9493691	.3679659	.1754542
#2	.1833262	.1922429	.1718159	.9355450	.3671352	.1760732
#3	.1794701	.1949472	.1720570	.9325826	.3669769	.1760331

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2823170**	**2.662754**	**.1891158**	**1.850259**	**.4408788**	**.0655528**
Stddev	.0005265	.031294	.0007501	.031405	.0010278	.0004167
%RSD	.1865020	1.175253	.3966283	1.697318	.2331302	.6356694
#1	.2819159	2.675016	.1893331	1.823431	.4396943	.0650717
#2	.2821219	2.686059	.1882811	1.884803	.4414061	.0657850
#3	.2829132	2.627185	.1897333	1.842544	.4415359	.0658016

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.133847**	**.2742820**	**.1852444**	**9.360302**	**.2915343**	**.3832576**
Stddev	.017076	.0004762	.0006561	.105355	.0014715	.0005301
%RSD	.5449018	.1736134	.3541999	1.125550	.5047514	.1383226
#1	3.151617	.2742038	.1859417	9.257768	.2928160	.3835555
#2	3.132364	.2738498	.1846392	9.468267	.2899273	.3835718
#3	3.117561	.2747925	.1851522	9.354871	.2918596	.3826455

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170190BS Acquired: 10/23/2025 14:23:52 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6116140**	**.1768112**	**.7748739**	**5.045214**	F **-.002798**	**.2079846**
Stddev	.0019592	.0025275	.0116872	.011549	.000481	.0016620
%RSD	.3203339	1.429493	1.508271	.2289178	17.20453	.7991094
#1	.6138447	.1777804	.7645298	5.058336	-.002458	.2070451
#2	.6101724	.1739425	.7875520	5.040712	-.002587	.2099036
#3	.6108249	.1787106	.7725400	5.036593	-.003349	.2070050

Elem	Sr4077
Units	ppm
Avg	**.1803590**
Stddev	.0004035
%RSD	.2236923
#1	.1805518
#2	.1806299
#3	.1798954

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7178.068**	**104620.4**	**6492.855**	**5687.518**	**8376.873**
Stddev	2.488	344.7	20.894	28.428	2.256
%RSD	.0346641	.3294793	.3218004	.4998277	.0269267
#1	7179.127	104663.2	6497.113	5658.211	8378.898
#2	7179.851	104256.3	6511.292	5689.367	8377.279
#3	7175.225	104941.7	6470.160	5714.976	8374.442

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3365-01DLX5 Acquired: 10/23/2025 14:28:09 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0073648	.0006402	.0055650	-.003078	-.000544	1.768113
Stddev	.0020825	.0031597	.0013443	.001724	.002949	.001987
%RSD	28.27620	493.5356	24.15628	55.99557	542.2070	.1123972
#1	.0097003	-.001440	.0041506	-.003906	-.003553	1.770338
#2	.0057012	-.000916	.0057184	-.001097	.002341	1.767484
#3	.0066929	.004276	.0068261	-.004232	-.000419	1.766516

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0577580	.0002247	.0052067	64.49226	.0034445	.0022875
Stddev	.0015140	.0000986	.0000720	.19990	.0001542	.0001667
%RSD	2.621309	43.87856	1.383060	.3099570	4.476263	7.288713
#1	.0575008	.0002694	.0052163	64.72196	.0032673	.0024708
#2	.0563891	.0001117	.0052735	64.39716	.0035480	.0022469
#3	.0593842	.0002929	.0051304	64.35768	.0035181	.0021448

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0283783	8.761705	.4667732	9.590342	.0073713	.0004880
Stddev	.0004248	.089914	.0004371	.061158	.0003862	.0004522
%RSD	1.496960	1.026214	.0936501	.6376994	5.238659	92.66109
#1	.0279171	8.858768	.4666613	9.657341	.0069274	.0000990
#2	.0287536	8.681258	.4664028	9.576171	.0076298	.0009842
#3	.0284641	8.745088	.4672554	9.537514	.0075568	.0003809

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1029.293	.0044833	.2034908	11.85813	.0417797	.0162127
Stddev	11.803	.0016601	.0003626	.24541	.0011971	.0004373
%RSD	1.146749	37.02823	.1782096	2.069542	2.865215	2.697468
#1	1042.847	.0055879	.2032545	11.68977	.0431618	.0166431
#2	1021.276	.0025742	.2039083	11.74491	.0411066	.0162262
#3	1023.755	.0052876	.2033095	12.13971	.0410706	.0157687

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3365-01DLX5 Acquired: 10/23/2025 14:28:09 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004004	.0861508	4.824830	.2058949	F 27.83879	.0305066
Stddev	.000582	.0036036	.021399	.0007897	.14945	.0041155
%RSD	14.53943	4.182875	.4435171	.3835460	.5368244	13.49062
#1	-.003637	.0821979	4.848752	.2051484	27.80778	.0260394
#2	-.004675	.0870016	4.807511	.2058145	28.00130	.0313365
#3	-.003700	.0892528	4.818226	.2067217	27.70727	.0341440

Elem	Sr4077
Units	ppm
Avg	.2749184
Stddev	.0020744
%RSD	.7545582
#1	.2771901
#2	.2731246
#3	.2744407

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6474.436	91667.46	6605.327	5059.715	6624.002
Stddev	5.826	336.45	32.619	42.364	4.418
%RSD	.0899810	.3670386	.4938295	.8372848	.0666949
#1	6470.312	91280.39	6624.014	5029.064	6623.112
#2	6481.100	91889.88	6567.662	5108.057	6628.797
#3	6471.895	91832.11	6624.305	5042.023	6620.097

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3365-02DLX5 Acquired: 10/23/2025 14:32:27 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0047156	.0001396	.0064824	-.000674	-.002969	.4575260
Stddev	.0013590	.0020553	.0005532	.002088	.001418	.0172243
%RSD	28.82016	1472.405	8.534415	310.0565	47.76521	3.764664
#1	.0059244	-.002231	.0069660	.000576	-.001481	.4743139
#2	.0032446	.001421	.0058791	.000487	-.004305	.4398961
#3	.0049777	.001229	.0066022	-.003084	-.003120	.4583680

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0443014	.0006983	.0010534	47.98440	-.002281	.0020184
Stddev	.0002891	.0000180	.0000953	.22558	.000255	.0001385
%RSD	.6526655	2.575344	9.048636	.4701023	11.16620	6.863709
#1	.0446247	.0007019	.0011257	48.21352	-.001989	.0021548
#2	.0442123	.0007142	.0010891	47.97712	-.002396	.0018779
#3	.0440674	.0006787	.0009454	47.76255	-.002459	.0020224

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0160658	38.03267	.4261939	6.511709	.0052314	-.000291
Stddev	.0002273	.48742	.0009583	.044252	.0003815	.000425
%RSD	1.414594	1.281569	.2248580	.6795780	7.292801	146.0041
#1	.0163182	37.53719	.4251511	6.562779	.0056645	.000182
#2	.0160020	38.04921	.4270359	6.484713	.0050849	-.000415
#3	.0158773	38.51160	.4263947	6.487635	.0049449	-.000641

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	801.4658	.0012663	.0743231	10.21342	.0555162	.0125063
Stddev	12.1768	.0036270	.0000738	.30872	.0026739	.0001106
%RSD	1.519314	286.4155	.0993197	3.022732	4.816407	.8842245
#1	787.9063	-.001567	.0742388	9.88801	.0527321	.0125990
#2	805.0238	.005354	.0743541	10.25008	.0557524	.0123839
#3	811.4673	.000012	.0743764	10.50218	.0580642	.0125359

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3365-02DLX5 Acquired: 10/23/2025 14:32:27 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004323	.0160368	2.618450	.2293583	F 19.63369	.0398079
Stddev	.000539	.0005551	.023026	.0030961	.11695	.0012371
%RSD	12.47584	3.461276	.8793875	1.349880	.5956407	3.107581
#1	-.004531	.0165397	2.594940	.2282542	19.51723	.0384173
#2	-.004728	.0154412	2.640960	.2269656	19.63272	.0407860
#3	-.003711	.0161295	2.619448	.2328551	19.75112	.0402205

Elem	Sr4077
Units	ppm
Avg	.1757497
Stddev	.0003301
%RSD	.1878032
#1	.1761267
#2	.1755125
#3	.1756100

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6347.680	88797.03	6535.662	4846.330	6574.494
Stddev	2.757	315.25	72.293	8.379	4.227
%RSD	.0434258	.3550191	1.106132	.1729031	.0642985
#1	6347.095	89126.34	6472.294	4851.612	6577.741
#2	6345.263	88766.72	6520.286	4836.668	6576.027
#3	6350.682	88498.04	6614.406	4850.709	6569.714

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170190BL Acquired: 10/23/2025 14:36:45 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005850**	**.0007851**	**.0006823**	**-.002514**	**-.001723**	**.0148184**
Stddev	.0010339	.0009135	.0008403	.001903	.000660	.0106280
%RSD	176.7461	116.3583	123.1591	75.70754	38.32053	71.72186
#1	.0016834	.0006649	-.000113	-.004366	-.002441	.0167914
#2	-.000369	.0017527	.001561	-.000563	-.001143	.0033421
#3	.000441	-.000062	.000599	-.002614	-.001585	.0243216

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0026289**	**.0001011**	**-.000063**	**.0021472**	**-.000229**	**-.000046**
Stddev	.0017069	.0000903	.000015	.0071286	.000325	.000124
%RSD	64.92742	89.33376	23.27011	331.9911	141.8286	268.8481
#1	.0037970	.0000397	-.000078	.0010065	-.000562	-.000137
#2	.0034196	.0002048	-.000049	.0097775	.000089	.000095
#3	.0006700	.0000588	-.000063	-.004342	-.000215	-.000097

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000419**	**-.006619**	**.0006705**	**-.020785**	**-.000373**	**.0000497**
Stddev	.000181	.009005	.0007698	.023867	.000567	.0006635
%RSD	43.13267	136.0511	114.8034	114.8258	151.8792	1336.091
#1	-.000225	-.006572	.0000477	-.000785	.000270	-.000564
#2	-.000449	.002362	.0015312	-.047206	-.000800	.000754
#3	-.000584	-.015648	.0004327	-.014366	-.000589	-.000041

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6607814**	**-.005515**	**-.000046**	**.9342059**	**-.002670**	**.0056346**
Stddev	.0243351	.003317	.000408	.0554954	.000276	.0001275
%RSD	3.682776	60.15703	892.6944	5.940386	10.33291	2.262655
#1	.6326863	-.009280	.000124	.8783627	-.002361	.0055612
#2	.6743894	-.003024	-.000511	.9349083	-.002892	.0055607
#3	.6752686	-.004240	.000250	.9893469	-.002758	.0057818

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170190BL Acquired: 10/23/2025 14:36:45 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0082830	-.001188	.0170885	-.001249	.0097254	F .0185162
Stddev	.0001381	.001557	.0100676	.000808	.0015294	.0025462
%RSD	1.667183	131.0079	58.91417	64.71685	15.72550	13.75099
#1	.0083278	-.002166	.0151611	-.000647	.0081723	.0208190
#2	.0081280	-.002006	.0081240	-.002168	.0097739	.0189478
#3	.0083931	.000607	.0279805	-.000933	.0112299	.0157819

Elem	Sr4077
Units	ppm
Avg	-.000094
Stddev	.000087
%RSD	93.16396
#1	-.000057
#2	-.000031
#3	-.000193

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6699.114	97308.94	6211.864	5207.900	8119.654
Stddev	15.470	493.16	37.258	30.178	17.817
%RSD	.2309231	.5067974	.5997872	.5794700	.2194351
#1	6699.100	96795.64	6185.592	5173.054	8128.862
#2	6714.592	97779.13	6195.494	5225.250	8130.984
#3	6683.652	97352.06	6254.504	5225.398	8099.117

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3398-01DLX5 Acquired: 10/23/2025 14:41:02 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0711413**	**1.309737**	**-.035831**	**-.014061**	**.3437318**	**.3147992**
Stddev	.0032999	.003826	.000735	.005707	.0047101	.0190086
%RSD	4.638569	.2921062	2.050397	40.58603	1.370278	6.038328
#1	.0721867	1.313528	-.035416	-.018172	.3437825	.2987111
#2	.0674453	1.309806	-.036679	-.007545	.3484164	.3099124
#3	.0737919	1.305878	-.035397	-.016465	.3389967	.3357741

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001252**	**-.046423**	**-.012222**	**.4828943**	**.6967024**	**-.132893**
Stddev	.001013	.000758	.000161	.0113789	.0029727	.001103
%RSD	80.94104	1.632693	1.319857	2.356390	.4266781	.8298213
#1	-.000145	-.045552	-.012254	.4786394	.6986086	-.131656
#2	-.001477	-.046784	-.012047	.4957875	.6932771	-.133774
#3	-.002133	-.046934	-.012365	.4742561	.6982214	-.133249

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1423407**	**.9136624**	**.0019289**	F **-2.35327**	**.0268048**	**-.012211**
Stddev	.0013330	.0024993	.0003729	.02595	.0002478	.000430
%RSD	.9365060	.2735419	19.33338	1.102597	.9246464	3.523994
#1	.1409755	.9161832	.0021529	-2.32590	.0265713	-.011832
#2	.1436390	.9136188	.0014984	-2.37750	.0267783	-.012679
#3	.1424077	.9111852	.0021354	-2.35642	.0270649	-.012122

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**255.3778**	F **-1.44633**	**-.035930**	**5.755119**	**5.971737**	F **147.7498**
Stddev	3.1375	.01662	.000397	.035391	.060034	.4068
%RSD	1.228556	1.148976	1.105413	.6149510	1.005310	.2753285
#1	257.9811	-1.43358	-.035994	5.737309	5.903781	148.1967
#2	256.2580	-1.44028	-.035504	5.732171	6.017572	147.6515
#3	251.8942	-1.46513	-.036291	5.795877	5.993858	147.4011

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3398-01DLX5 Acquired: 10/23/2025 14:41:02 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002835	.0209858	.8286706	.0772875	8.598872	.0165071
Stddev	.000449	.0003816	.0345536	.0010020	.027223	.0019107
%RSD	15.83132	1.818389	4.169757	1.296483	.3165902	11.57501
#1	-.003353	.0213135	.8685088	.0762959	8.597621	.0148329
#2	-.002573	.0205669	.8068431	.0782997	8.626699	.0185886
#3	-.002578	.0210772	.8106601	.0772670	8.572296	.0160997

Elem	Sr4077
Units	ppm
Avg	.0026218
Stddev	.0000892
%RSD	3.403817
#1	.0027246
#2	.0025646
#3	.0025761

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5934.859	92051.99	6219.788	4695.328	5936.727
Stddev	5.641	529.91	34.652	29.640	2.405
%RSD	.0950490	.5756676	.5571317	.6312565	.0405060
#1	5929.648	91578.01	6259.197	4665.544	5936.891
#2	5940.849	92624.11	6206.082	4724.821	5934.245
#3	5934.079	91953.85	6194.085	4695.619	5939.046

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3398-01DL2X10 Acquired: 10/23/2025 14:49:22 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0418340**	**.7828807**	**-.003219**	**-.009328**	**.1866235**	**-.038664**
Stddev	.0017116	.0034156	.000098	.001116	.0000972	.027207
%RSD	4.091334	.4362866	3.053684	11.96594	.0520635	70.36750
#1	.0435225	.7863392	-.003137	-.010501	.1866940	-.059044
#2	.0418792	.7827933	-.003328	-.009204	.1865127	-.049179
#3	.0401003	.7795097	-.003192	-.008279	.1866637	-.007769

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0024875**	**-.025053**	**-.006279**	**.2743275**	**.3931543**	**-.057399**
Stddev	.0028854	.000441	.000072	.0027224	.0004804	.000532
%RSD	115.9964	1.761245	1.150158	.9924068	.1221875	.9261751
#1	.0044998	-.024879	-.006218	.2711862	.3926008	-.057626
#2	.0037812	-.024726	-.006261	.2757920	.3934627	-.057778
#3	-.000818	-.025555	-.006359	.2760042	.3933994	-.056791

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0635531**	**.5380089**	**.0014671**	F **-1.31010**	**.0132336**	**-.007031**
Stddev	.0005280	.0069362	.0003907	.01861	.0004596	.000150
%RSD	.8307389	1.289240	26.63355	1.420156	3.473158	2.132806
#1	.0631201	.5402141	.0017815	-1.33153	.0131338	-.006874
#2	.0633980	.5435745	.0010296	-1.30073	.0137350	-.007172
#3	.0641413	.5302382	.0015902	-1.29804	.0128321	-.007045

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**147.4652**	**-.769201**	**-.019757**	**3.128116**	**3.586074**	F **87.96609**
Stddev	.8873	.003388	.000238	.075707	.022040	.38930
%RSD	.6017152	.4404199	1.203630	2.420214	.6145986	.4425516
#1	148.3153	-.766649	-.019551	3.069048	3.599847	88.38705
#2	147.5356	-.767909	-.020017	3.101839	3.560654	87.89217
#3	146.5448	-.773044	-.019702	3.213460	3.597721	87.61906

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3398-01DL2X10 Acquired: 10/23/2025 14:49:22 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004776	.0099964	.4724737	.0380268	4.520012	.0106915
Stddev	.000422	.0013051	.0141877	.0017215	.011152	.0012992
%RSD	8.826588	13.05525	3.002848	4.527075	.2467191	12.15172
#1	-.004737	.0111879	.4630953	.0376657	4.530859	.0121910
#2	-.004376	.0086016	.4655300	.0399002	4.520599	.0099788
#3	-.005217	.0101996	.4887958	.0365145	4.508579	.0099046

Elem	Sr4077
Units	ppm
Avg	.0014343
Stddev	.0002676
%RSD	18.65642
#1	.0012433
#2	.0017401
#3	.0013195

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6222.173	91783.63	6069.472	4816.195	6570.354
Stddev	9.307	108.63	43.560	2.110	16.073
%RSD	.1495840	.1183592	.7176932	.0438053	.2446330
#1	6230.042	91658.30	6030.388	4818.514	6555.218
#2	6224.578	91841.66	6116.433	4815.683	6568.619
#3	6211.899	91850.92	6061.594	4814.389	6587.224

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCV02 Acquired: 10/23/2025 15:04:20 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.242482**	**5.318685**	**5.233306**	**5.213879**	**5.155109**	**10.40958**
Stddev	.023726	.162010	.001496	.015197	.011672	.05832
%RSD	.4525639	3.046055	.0285848	.2914810	.2264208	.5602379
#1	5.217037	5.133520	5.231579	5.198193	5.155758	10.34349
#2	5.263998	5.434350	5.234209	5.228536	5.166444	10.43148
#3	5.246410	5.388185	5.234129	5.214907	5.143126	10.45379

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.61720**	**.2744505**	**2.626978**	**26.18515**	**1.052111**	**2.601118**
Stddev	.07165	.0035120	.002116	.15033	.002650	.001029
%RSD	.6748368	1.279657	.0805540	.5741128	.2519048	.0395532
#1	10.58188	.2715972	2.624572	26.06634	1.052772	2.599932
#2	10.57007	.2733815	2.628548	26.13495	1.054368	2.601646
#3	10.69965	.2783728	2.627816	26.35416	1.049193	2.601775

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.306979**	**5.058895**	**2.645086**	**26.13660**	**2.611175**	**1.301297**
Stddev	.002061	.055457	.017679	.08447	.001161	.001141
%RSD	.1577157	1.096236	.6683727	.3232037	.0444751	.0876719
#1	1.305442	5.085852	2.637732	26.07313	2.610722	1.302514
#2	1.309322	5.095721	2.632271	26.10418	2.612495	1.301123
#3	1.306175	4.995113	2.665255	26.23248	2.610310	1.300252

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.43323**	**2.604709**	**2.608846**	**25.51530**	F **5.515463**	**5.196823**
Stddev	.14182	.005479	.008021	.13856	.078383	.012317
%RSD	.5576294	.2103537	.3074685	.5430340	1.421156	.2370008
#1	25.54796	2.598397	2.602023	25.57184	5.453632	5.186317
#2	25.47706	2.607498	2.617682	25.61665	5.489137	5.210377
#3	25.27466	2.608234	2.606833	25.35742	5.603621	5.193774

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCV02 Acquired: 10/23/2025 15:04:20 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.281095**	**5.219385**	**4.986359**	**5.328533**	**5.209722**	**5.171201**
Stddev	.015239	.021670	.052787	.025226	.045563	.038849
%RSD	.2885664	.4151776	1.058632	.4734224	.8745850	.7512504
#1	5.263633	5.206447	5.000044	5.302882	5.157530	5.146852
#2	5.287941	5.207305	5.030955	5.353312	5.241567	5.150748
#3	5.291711	5.244402	4.928076	5.329405	5.230069	5.216003

Elem	Sr4077
Units	ppm
Avg	**5.281753**
Stddev	.048142
%RSD	.9114769
#1	5.254399
#2	5.253520
#3	5.337340

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6472.813**	**92627.41**	**5807.025**	**5156.399**	**6989.120**
Stddev	17.217	422.21	71.630	32.298	5.158
%RSD	.2659960	.4558183	1.233504	.6263597	.0737979
#1	6465.704	92719.48	5875.465	5172.609	6986.175
#2	6460.289	92166.76	5813.028	5119.207	6986.109
#3	6492.447	92995.99	5732.583	5177.382	6995.075

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCB02 Acquired: 10/23/2025 15:08:23 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007522**	**.0004864**	**.0005933**	**-.001958**	**-.000628**	**.0225501**	**.0001858**
Stddev	.0014405	.0001798	.0005529	.000595	.002071	.0020980	.0002681
%RSD	191.5050	36.95456	93.18088	30.39631	329.6176	9.303758	144.3308
#1	-.000164	.0003504	.0000033	-.001919	.000547	.0208050	-.000070
#2	.000008	.0004187	.0010995	-.002571	-.003020	.0219675	.000465
#3	.002413	.0006902	.0006773	-.001383	.000588	.0248778	.000163

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000027**	**-.000031**	**.0092644**	**.0000193**	**.0000176**	**.0002900**	**.0341633**
Stddev	.000055	.000074	.0197169	.0002891	.0000484	.0002220	.0125970
%RSD	199.0854	237.0249	212.8245	1500.833	274.3937	76.55749	36.87273
#1	-.000027	-.000097	.0170449	-.000268	-.000033	.0000645	.0421547
#2	.000027	-.000047	.0239040	.000016	.000063	.0005083	.0196421
#3	-.000082	.000049	-.013156	.000310	.000023	.0002971	.0406932

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008900**	**.0067820**	**.0007370**	**.0004706**	**.0745148**	**-.004410**	**.0005180**
Stddev	.0007073	.0358011	.0001344	.0002041	.0407672	.000980	.0001120
%RSD	79.47603	527.8833	18.23414	43.35932	54.71019	22.21375	21.62444
#1	.0008040	-.028192	.0008675	.0006817	.0383650	-.003782	.0003929
#2	.0016363	.043356	.0007446	.0002744	.1187020	-.003909	.0005521
#3	.0002296	.005182	.0005990	.0004558	.0664773	-.005539	.0006091

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1211541**	**.0111880**	**.0046631**	**.0075435**	**-.002549**	**.0050582**	**-.000609**
Stddev	.0587972	.0012021	.0002973	.0001005	.004445	.0053659	.001125
%RSD	48.53093	10.74468	6.375199	1.331854	174.3927	106.0838	184.6382
#1	.1890302	.0124682	.0048487	.0076038	.001634	-.001020	-.001908
#2	.0885355	.0110128	.0048205	.0074275	-.007216	.007055	.000064
#3	.0858967	.0100831	.0043203	.0075992	-.002064	.009139	.000016

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCB02 Acquired: 10/23/2025 15:08:23 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0052134	.0052633	-.000046
Stddev	.0042584	.0007254	.000099
%RSD	81.68162	13.78135	212.9589
#1	.0003289	.0056493	-.000027
#2	.0071656	.0057140	-.000153
#3	.0081455	.0044265	.000041

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6876.485	97815.08	6177.903	5323.238	8327.208
Stddev	7.522	456.40	47.861	22.464	13.559
%RSD	.1093917	.4665936	.7747203	.4219915	.1628326
#1	6870.291	98322.64	6230.556	5349.118	8314.280
#2	6884.856	97684.15	6137.035	5308.786	8341.321
#3	6874.309	97438.46	6166.119	5311.810	8326.024

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3398-01DL3X25 Acquired: 10/23/2025 15:12:59 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0158412**	**.2985259**	**.0049047**	**-.004222**	**.0649850**	**-.111519**
Stddev	.0007715	.0037276	.0010718	.000596	.0014998	.018811
%RSD	4.870073	1.248683	21.85276	14.11370	2.307887	16.86813
#1	.0150168	.2988109	.0039736	-.003561	.0632674	-.129503
#2	.0159609	.3021029	.0046642	-.004718	.0660357	-.113077
#3	.0165458	.2946640	.0060763	-.004388	.0656518	-.091978

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0010480**	**-.008613**	**-.002173**	**.1071602**	**.1445288**	**-.015039**
Stddev	.0019163	.000165	.000017	.0057151	.0003834	.000078
%RSD	182.8448	1.919618	.7880455	5.333207	.2652901	.5179277
#1	.0025731	-.008428	-.002190	.1094269	.1441039	-.014970
#2	-.001103	-.008661	-.002173	.1006595	.1448489	-.015025
#3	.001674	-.008748	-.002155	.1113943	.1446337	-.015123

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0180461**	**.2024240**	**.0001982**	**-.473954**	**.0039483**	**-.002043**
Stddev	.0005502	.0099377	.0001341	.020982	.0002170	.000601
%RSD	3.048810	4.909344	67.64944	4.426988	5.495165	29.42681
#1	.0185953	.2068104	.0001346	-.479038	.0041847	-.001360
#2	.0180479	.2094138	.0003522	-.450898	.0037583	-.002276
#3	.0174950	.1910478	.0001077	-.491927	.0039019	-.002493

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**49.29089**	**-.255821**	**-.006867**	**1.094984**	**1.271038**	F **33.57830**
Stddev	.20258	.000882	.000129	.015633	.004936	.08126
%RSD	.4109874	.3448163	1.871889	1.427661	.3883373	.2419963
#1	49.17636	-.255685	-.006979	1.080831	1.265342	33.62985
#2	49.52479	-.256763	-.006727	1.111763	1.274042	33.62043
#3	49.17152	-.255015	-.006895	1.092356	1.273731	33.48463

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3398-01DL3X25 Acquired: 10/23/2025 15:12:59 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004466	.0037309	.1728456	.0129147	1.476582	.0013804
Stddev	.000650	.0001203	.0171158	.0005180	.004914	.0008875
%RSD	14.55172	3.225206	9.902339	4.011156	.3328261	64.29203
#1	-.004799	.0038064	.1533687	.0130544	1.471437	.0018983
#2	-.004883	.0035921	.1796799	.0123412	1.481227	.0003556
#3	-.003717	.0037941	.1854884	.0133486	1.477084	.0018873

Elem	Sr4077
Units	ppm
Avg	.0002740
Stddev	.0001233
%RSD	44.99931
#1	.0003840
#2	.0002971
#3	.0001407

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6501.635	94163.12	6183.559	4989.668	7280.306
Stddev	15.599	418.32	36.843	24.107	18.678
%RSD	.2399169	.4442465	.5958274	.4831299	.2565594
#1	6486.286	94371.29	6213.655	5011.024	7260.530
#2	6501.148	94436.51	6194.550	4994.451	7282.742
#3	6517.472	93681.56	6142.470	4963.528	7297.647

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3368-06 Acquired: 10/23/2025 15:17:09 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002590**	**-.001853**	**.0050891**	**.0025435**	**.0044117**	**.0745823**	**.1162188**
Stddev	.002692	.002416	.0001340	.0028869	.0007552	.0117792	.0012947
%RSD	103.9565	130.4047	2.633109	113.4989	17.11788	15.79356	1.113984
#1	-.004838	-.004626	.0052326	.0058698	.0037895	.0788293	.1149856
#2	.000394	-.000721	.0049672	.0006897	.0041936	.0836490	.1161037
#3	-.003326	-.000210	.0050676	.0010712	.0052519	.0612685	.1175672

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000119**	**.0011599**	**67.35461**	**.0014127**	**.0020710**	**.0078925**	**.0635181**
Stddev	.000050	.0000556	.29100	.0003632	.0000860	.0001496	.0075195
%RSD	41.89511	4.793826	.4320393	25.70942	4.151526	1.895119	11.83844
#1	-.000165	.0011121	67.17183	.0013451	.0021164	.0079939	.0591823
#2	-.000127	.0011467	67.20182	.0018050	.0019718	.0077207	.0722009
#3	-.000066	.0012209	67.69018	.0010881	.0021247	.0079628	.0591710

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2146865**	**6.957057**	**.0099714**	**.0005544**	**228.4386**	**-.005472**	**.5486735**
Stddev	.0010549	.026326	.0003194	.0005843	1.4509	.001051	.0017858
%RSD	.4913594	.3784017	3.203561	105.3809	.6351206	19.21663	.3254701
#1	.2147414	6.929708	.0096081	-.000120	226.9057	-.004881	.5490445
#2	.2136053	6.959239	.0100979	.000905	228.6197	-.006686	.5467314
#3	.2157129	6.982223	.0102082	.000879	229.7904	-.004849	.5502446

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.715213**	**.0224260**	**.0319856**	**-.021595**	**-.003587**	**1.516530**	**.0617029**
Stddev	.041075	.0006372	.0073787	.000563	.001952	.025810	.0017088
%RSD	1.512754	2.841152	23.06885	2.606077	54.43289	1.701910	2.769349
#1	2.749725	.0225747	.0398118	-.021304	-.005759	1.488929	.0618722
#2	2.669783	.0217277	.0309892	-.022244	-.003024	1.520594	.0599158
#3	2.726131	.0229757	.0251557	-.021238	-.001977	1.540067	.0633207

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3368-06 Acquired: 10/23/2025 15:17:09 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	2.599809	-.018439	.2633375
Stddev	.005128	.001497	.0014298
%RSD	.1972414	8.117769	.5429454
#1	2.605728	-.018538	.2626471
#2	2.596957	-.016896	.2623839
#3	2.596740	-.019885	.2649814

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6312.652	89596.24	6058.028	4832.419	6878.521
Stddev	5.603	511.92	42.857	5.353	10.241
%RSD	.0887544	.5713676	.7074495	.1107719	.1488783
#1	6315.126	90002.29	6061.522	4829.011	6884.947
#2	6316.592	89765.24	6099.032	4838.589	6883.903
#3	6306.238	89021.18	6013.531	4829.658	6866.711

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3368-07 Acquired: 10/23/2025 15:21:21 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001178**	**-.003660**	**.0116390**	**.0023279**	**.0037249**	**.3371772**	**.1261174**
Stddev	.001105	.000641	.0012978	.0027360	.0024535	.0018258	.0016061
%RSD	93.82107	17.51877	11.15086	117.5312	65.86613	.5415005	1.273500
#1	-.001288	-.003125	.0117468	.0054498	.0063915	.3370473	.1279191
#2	-.002224	-.004371	.0128795	.0011871	.0015630	.3390645	.1248358
#3	-.000022	-.003483	.0102906	.0003469	.0032203	.3354198	.1255973

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000007**	**.0007047**	**10.94286**	**.0018227**	**.0036785**	**.0101390**	**5.289501**
Stddev	.000034	.0001174	.09822	.0002733	.0002018	.0004118	.056657
%RSD	497.8418	16.65633	.8975451	14.99192	5.487139	4.061897	1.071118
#1	-.000003	.0006517	10.97227	.0015873	.0038662	.0097171	5.350664
#2	-.000043	.0006232	10.83330	.0017584	.0034650	.0105400	5.279027
#3	.000025	.0008392	11.02301	.0021223	.0037043	.0101599	5.238812

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1726557**	**.8317993**	**.0237443**	**.0003054**	**277.5569**	**-.002229**	**1.160060**
Stddev	.0015154	.0350447	.0002254	.0007555	1.8075	.001208	.001727
%RSD	.8776846	4.213117	.9493939	247.3633	.6512011	54.20065	.1488358
#1	.1731509	.7914672	.0236727	-.000565	279.3132	-.001620	1.158634
#2	.1709547	.8491155	.0235633	.000786	275.7023	-.001447	1.159566
#3	.1738616	.8548152	.0239968	.000696	277.6551	-.003621	1.161980

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1296409**	**.0224828**	**.0250964**	**-.018732**	**.0018941**	**.9445027**	**1.253991**
Stddev	.0156877	.0007994	.0016985	.000454	.0025921	.0179865	.004713
%RSD	12.10084	3.555485	6.767704	2.421419	136.8521	1.904333	.3758407
#1	.1232579	.0232902	.0270296	-.019069	.0014076	.9633569	1.252156
#2	.1181510	.0216917	.0244163	-.018910	.0046951	.9426190	1.250471
#3	.1475139	.0224665	.0238435	-.018216	-.000420	.9275322	1.259346

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3368-07 Acquired: 10/23/2025 15:21:21 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7185406	-.007796	.0780276
Stddev	.0037866	.002573	.0005745
%RSD	.5269854	33.00693	.7362754
#1	.7164009	-.006083	.0781841
#2	.7163082	-.010755	.0773910
#3	.7229127	-.006550	.0785076

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6567.157	93674.96	6226.113	5171.715	7202.839
Stddev	4.863	123.68	86.920	20.871	4.080
%RSD	.0740430	.1320293	1.396053	.4035555	.0566414
#1	6561.558	93665.90	6305.631	5185.340	7207.256
#2	6570.323	93556.05	6239.389	5147.687	7199.211
#3	6569.588	93802.91	6133.319	5182.117	7202.051

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3397-04 Acquired: 10/23/2025 15:25:40 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000503**	**-.001872**	**.0031409**	**.0038222**	**.0016885**	**.0327305**	**.1773609**
Stddev	.000508	.001327	.0001556	.0016440	.0011091	.0150004	.0022213
%RSD	100.9222	70.87672	4.953805	43.01226	65.68441	45.83017	1.252425
#1	-.001031	-.003340	.0031089	.0043885	.0010598	.0213405	.1753104
#2	-.000461	-.000759	.0030037	.0019699	.0029691	.0271245	.1770517
#3	-.000018	-.001516	.0033099	.0051082	.0010367	.0497265	.1797207

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000065**	**-.000001**	**9.063572**	**.0011233**	**-.000224**	**.0039085**	**.0316521**
Stddev	.000053	.000039	.028520	.0001203	.000106	.0002172	.0073981
%RSD	81.63200	3053.339	.3146631	10.71263	47.45786	5.557919	23.37308
#1	-.000005	.000033	9.037348	.0011365	-.000111	.0037277	.0236032
#2	-.000084	.000008	9.059434	.0009969	-.000322	.0038483	.0381551
#3	-.000107	-.000044	9.093935	.0012365	-.000239	.0041495	.0331980

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0580103**	**2.171646**	**.0025916**	**.0004109**	**251.9794**	**-.005990**	**.0318618**
Stddev	.0009671	.038385	.0001800	.0009018	1.7009	.000934	.0000438
%RSD	1.667211	1.767546	6.945444	219.4858	.6750002	15.59636	.1375189
#1	.0569203	2.130517	.0027330	.0013366	250.7224	-.005698	.0319091
#2	.0583451	2.177905	.0023890	-.000465	251.3011	-.005238	.0318227
#3	.0587657	2.206517	.0026528	.000361	253.9148	-.007036	.0318534

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7790656**	**.0067677**	**.0008823**	**-.020243**	**-.000521**	**.4154431**	**.0251953**
Stddev	.0202422	.0007799	.0000887	.000747	.001660	.0059653	.0012745
%RSD	2.598263	11.52361	10.05777	3.688727	318.4336	1.435889	5.058687
#1	.8002482	.0076496	.0009346	-.020289	-.001290	.4222271	.0266666
#2	.7770311	.0061688	.0009323	-.019474	.001384	.4110177	.0244912
#3	.7599175	.0064847	.0007798	-.020965	-.001657	.4130846	.0244281

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3397-04 Acquired: 10/23/2025 15:25:40 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5272751	-.010381	.0392703
Stddev	.0014861	.002179	.0000470
%RSD	.2818476	20.99545	.1195786
#1	.5289161	-.011541	.0392648
#2	.5260200	-.007867	.0392263
#3	.5268893	-.011735	.0393197

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6809.994	96322.75	6273.198	5367.277	7437.396
Stddev	19.310	340.60	36.232	22.349	21.153
%RSD	.2835511	.3536017	.5775694	.4163898	.2844149
#1	6791.661	95935.17	6285.437	5343.839	7414.031
#2	6830.151	96574.36	6232.431	5388.349	7455.243
#3	6808.170	96458.72	6301.725	5369.643	7442.915

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3399-02 Acquired: 10/23/2025 15:30:05 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005867	.0004697	.0021999	.0015119	.0022601	.2652843	.0725139
Stddev	.0025142	.0012277	.0011183	.0008619	.0011183	.0046442	.0005088
%RSD	428.5438	261.3948	50.83185	57.00402	49.48111	1.750647	.7017178
#1	.0034296	.0017572	.0011741	.0024207	.0026603	.2701674	.0719264
#2	-.001344	.0003397	.0020337	.0007062	.0009968	.2647623	.0727988
#3	-.000325	-.000688	.0033920	.0014090	.0031233	.2609231	.0728165

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000104	-.000008	2.474390	.0009068	.0012775	.0033972	.2720526
Stddev	.000039	.000042	.005141	.0002335	.0000113	.0003668	.0017546
%RSD	37.10551	550.7572	.2077829	25.74754	.8834459	10.79635	.6449462
#1	-.000121	-.000055	2.477703	.0009487	.0012771	.0033723	.2739406
#2	-.000131	.000025	2.476999	.0011164	.0012890	.0037758	.2704721
#3	-.000060	.000007	2.468467	.0006552	.0012665	.0030435	.2717452

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1596945	.2491748	.0010219	.0002017	233.0437	-.000797	.0302838
Stddev	.0001986	.0487307	.0002097	.0001744	2.3597	.002415	.0002281
%RSD	.1243818	19.55684	20.51775	86.47295	1.012551	303.1132	.7533668
#1	.1596674	.2647844	.0011720	.0002218	235.7681	.001336	.0300356
#2	.1595108	.1945518	.0007823	.0003652	231.6463	-.003418	.0304844
#3	.1599053	.2881881	.0011113	.0000181	231.7166	-.000307	.0303313

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3414735	.0032720	.0005275	-.020131	-.000097	.4727613	.0198172
Stddev	.0293668	.0004790	.0001190	.000790	.001677	.0211683	.0010713
%RSD	8.600012	14.63798	22.56206	3.926011	1732.809	4.477597	5.405722
#1	.3085589	.0030160	.0003923	-.020544	-.000916	.4769965	.0206403
#2	.3649933	.0029755	.0006166	-.019220	-.001206	.4497955	.0186060
#3	.3508681	.0038246	.0005736	-.020630	.001832	.4914918	.0202053

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3399-02 Acquired: 10/23/2025 15:30:05 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2528223	-.009672	.0169576
Stddev	.0015959	.000924	.0000842
%RSD	.6312400	9.552951	.4965537
#1	.2525658	-.009401	.0169646
#2	.2545309	-.008914	.0168701
#3	.2513701	-.010701	.0170381

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7066.185	99220.06	6549.767	5465.743	7780.623
Stddev	7.808	356.16	26.461	16.208	4.011
%RSD	.1104973	.3589572	.4039926	.2965431	.0515570
#1	7074.777	99355.99	6520.846	5483.649	7781.842
#2	7059.523	98815.95	6555.693	5461.506	7776.144
#3	7064.254	99488.23	6572.762	5452.074	7783.884

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3402-03 Acquired: 10/23/2025 15:34:29 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0051261**	**.0006023**	**.0072180**	**.0027309**	**.0018322**	**.1090629**	**.1548157**
Stddev	.0013827	.0013665	.0002670	.0013190	.0009274	.0056203	.0006952
%RSD	26.97315	226.8818	3.699280	48.29694	50.61674	5.153222	.4490406
#1	.0062470	-.000976	.0073231	.0041556	.0021003	.1114874	.1547426
#2	.0035810	.001387	.0069144	.0024849	.0025961	.1026374	.1555445
#3	.0055504	.001396	.0074164	.0015524	.0008003	.1130640	.1541599

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000168**	**.0001055**	**41.45977**	**.0014068**	**.0055665**	**.0060195**	**.0697513**
Stddev	.000009	.0000488	.12975	.0001878	.0001068	.0004390	.0052284
%RSD	5.057550	46.23688	.3129632	13.34779	1.917870	7.292222	7.495780
#1	-.000162	.0000534	41.48606	.0013613	.0056863	.0063522	.0739888
#2	-.000165	.0001500	41.57436	.0012460	.0054814	.0061843	.0639084
#3	-.000178	.0001130	41.31888	.0016132	.0055316	.0055220	.0713567

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.509604**	**7.604814**	**.0037014**	**-.000035**	**332.2755**	**-.001597**	**.0594079**
Stddev	.005307	.070684	.0001695	.000478	3.3633	.002826	.0003724
%RSD	.3515392	.9294621	4.580394	1355.976	1.012209	176.9709	.6267992
#1	1.509830	7.545827	.0038971	.000096	329.9749	.001521	.0591435
#2	1.514794	7.683161	.0036055	-.000565	330.7161	-.003989	.0592465
#3	1.504187	7.585455	.0036015	.000364	336.1355	-.002322	.0598338

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.921557**	**.0296777**	**.0009227**	**-.017885**	**-.002326**	**1.450693**	**.0179315**
Stddev	.039231	.0014160	.0001865	.000311	.002743	.026029	.0001449
%RSD	2.041645	4.771212	20.21709	1.736382	117.9423	1.794259	.8081879
#1	1.879785	.0281195	.0009103	-.017982	-.000054	1.420643	.0180035
#2	1.957623	.0300280	.0011151	-.018135	-.005373	1.466226	.0180263
#3	1.927262	.0308857	.0007426	-.017537	-.001550	1.465211	.0177647

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3402-03 Acquired: 10/23/2025 15:34:29 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.641884	-.013477	.1965994
Stddev	.007002	.001605	.0007599
%RSD	.4264588	11.91143	.3865175
#1	1.649598	-.015249	.1968761
#2	1.635931	-.012119	.1971822
#3	1.640123	-.013064	.1957400

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6548.355	93624.11	6275.517	5073.293	7060.361
Stddev	16.110	686.80	33.761	39.253	13.410
%RSD	.2460117	.7335704	.5379796	.7737122	.1899381
#1	6551.616	94388.59	6237.254	5114.481	7064.457
#2	6530.864	93424.56	6301.111	5069.083	7045.380
#3	6562.584	93059.18	6288.185	5036.315	7071.246

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3402-06 Acquired: 10/23/2025 15:38:49 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027832	-.002602	.0031069	.0048697	.0030785	.0724717	.1162625
Stddev	.0008071	.001132	.0007604	.0027036	.0012205	.0123197	.0004258
%RSD	29.00114	43.52943	24.47626	55.51760	39.64473	16.99938	.3662323
#1	.0028685	-.002867	.0029351	.0078538	.0019151	.0768823	.1159306
#2	.0019367	-.003578	.0024470	.0041718	.0029715	.0819791	.1167426
#3	.0035443	-.001360	.0039385	.0025836	.0043489	.0585538	.1161144

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000115	-.000053	27.38953	.0011617	.0011161	.0050606	.0208895
Stddev	.000043	.000040	.06567	.0002341	.0001153	.0003606	.0056364
%RSD	37.11892	76.78290	.2397630	20.14924	10.33239	7.125406	26.98184
#1	-.000141	-.000044	27.33698	.0014313	.0012483	.0051069	.0207258
#2	-.000138	-.000097	27.36846	.0010439	.0010639	.0046792	.0153367
#3	-.000066	-.000017	27.46315	.0010100	.0010361	.0053959	.0266059

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9810042	5.982486	.0011911	-.000051	300.9118	-.002068	.0538978
Stddev	.0023250	.046930	.0003302	.000072	4.1705	.003850	.0000703
%RSD	.2370045	.7844561	27.71934	141.3931	1.385959	186.2136	.1303700
#1	.9785461	5.935982	.0011461	-.000130	305.6277	.002136	.0538208
#2	.9812981	5.981646	.0008858	.000011	297.7091	-.005422	.0539143
#3	.9831682	6.029830	.0015415	-.000034	299.3987	-.002917	.0539584

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.756076	.0227618	.0010374	-.020974	-.003021	1.182878	.0673110
Stddev	.021872	.0007037	.0000252	.000271	.002562	.008170	.0016431
%RSD	1.245511	3.091516	2.427325	1.290915	84.80800	.6906912	2.441123
#1	1.740940	.0230104	.0010636	-.021243	-.000128	1.176959	.0659587
#2	1.781153	.0219675	.0010352	-.020977	-.005004	1.192200	.0691397
#3	1.746136	.0233073	.0010134	-.020701	-.003930	1.179476	.0668346

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3402-06 Acquired: 10/23/2025 15:38:49 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**1.443860**	**-.011640**	**.1717582**
Stddev	.002892	.002105	.0003320
%RSD	.2003138	18.08634	.1933102
#1	1.446730	-.012947	.1714289
#2	1.440945	-.009211	.1717529
#3	1.443904	-.012760	.1720929

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6768.680**	**96054.69**	**6404.695**	**5277.619**	**7313.246**
Stddev	6.808	371.58	39.284	17.643	13.392
%RSD	.1005858	.3868396	.6133611	.3342927	.1831256
#1	6760.892	95775.62	6409.039	5282.664	7299.391
#2	6771.645	96476.47	6441.626	5258.003	7314.224
#3	6773.503	95911.99	6363.419	5292.189	7326.122

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3402-09 Acquired: 10/23/2025 15:43:09 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0286143**	**-.000562**	**.0077178**	**.0044425**	**-.000664**	**.1354324**	**.1326410**
Stddev	.0006901	.000891	.0009935	.0032288	.002554	.0097603	.0012949
%RSD	2.411601	158.6805	12.87221	72.67997	384.8193	7.206775	.9762716
#1	.0278604	-.000477	.0068556	.0049552	-.000837	.1467024	.1339590
#2	.0292147	-.001493	.0088042	.0009880	.001973	.1297379	.1325937
#3	.0287677	.000284	.0074937	.0073842	-.003127	.1298569	.1313704

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000288**	**.0000779**	**6.723417**	**.0018808**	**.0048966**	**.0041838**	**.4831634**
Stddev	.000042	.0000397	.010821	.0002846	.0001829	.0001285	.0127659
%RSD	14.69468	50.92147	.1609486	15.13396	3.735422	3.071370	2.642145
#1	-.000331	.0001084	6.711154	.0021881	.0047796	.0040408	.4695027
#2	-.000288	.0000330	6.731625	.0018280	.0051074	.0042896	.4851971
#3	-.000246	.0000924	6.727471	.0016263	.0048029	.0042208	.4947903

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.714214**	**5.541856**	**.0093040**	**.0000210**	**254.7060**	**-.003924**	**.0662697**
Stddev	.016237	.070461	.0000645	.0003631	2.6757	.002117	.0006228
%RSD	.5982061	1.271431	.6930053	1733.494	1.050504	53.94141	.9398758
#1	2.695985	5.623190	.0092911	.0000007	256.7796	-.003575	.0662462
#2	2.719531	5.502997	.0092470	.0003938	251.6856	-.006194	.0656589
#3	2.727125	5.499380	.0093740	-.000332	255.6528	-.002004	.0669039

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.411063**	**.0226832**	**.0007203**	**-.020540**	**-.000780**	**.9648072**	**.0172082**
Stddev	.045412	.0011483	.0002017	.000289	.001799	.0283303	.0008393
%RSD	1.883471	5.062220	28.00408	1.404725	230.7003	2.936372	4.877052
#1	2.359243	.0220533	.0007837	-.020873	.000152	.9556999	.0180366
#2	2.430032	.0240085	.0008827	-.020363	-.002853	.9421506	.0163585
#3	2.443916	.0219877	.0004945	-.020384	.000362	.9965712	.0172295

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3402-09 Acquired: 10/23/2025 15:43:09 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6382326	-.007008	.0873668
Stddev	.0020850	.001854	.0005522
%RSD	.3266893	26.45522	.6320493
#1	.6364945	-.004886	.0869281
#2	.6405444	-.008314	.0871854
#3	.6376588	-.007824	.0879869

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6649.744	94830.44	6106.719	5337.440	7236.743
Stddev	7.692	489.70	54.092	27.112	12.258
%RSD	.1156750	.5163916	.8857760	.5079600	.1693788
#1	6655.553	95030.91	6115.522	5357.093	7243.640
#2	6641.020	95188.09	6048.765	5348.718	7222.591
#3	6652.659	94272.31	6155.869	5306.509	7243.999

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3402-12 Acquired: 10/23/2025 15:47:29 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0245151	-.000220	.0064723	.0039261	.0036564	.6196252	.1393000
Stddev	.0009103	.001330	.0007475	.0025271	.0007893	.0124703	.0017482
%RSD	3.713014	604.2874	11.54993	64.36818	21.58640	2.012549	1.255018
#1	.0240699	-.001742	.0070466	.0061111	.0038385	.6203088	.1411678
#2	.0239132	.000362	.0056270	.0011585	.0043388	.6317397	.1390293
#3	.0255623	.000719	.0067433	.0045085	.0027920	.6068273	.1377029

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000192	-.000080	7.723846	.0022032	.0020438	.0085341	.4534397
Stddev	.000021	.000053	.003742	.0000967	.0001651	.0001361	.0023973
%RSD	11.03581	65.92190	.0484497	4.386607	8.077494	1.594629	.5286815
#1	-.000168	-.000140	7.720598	.0023079	.0019057	.0086801	.4561789
#2	-.000199	-.000061	7.727938	.0021173	.0022267	.0084108	.4517247
#3	-.000209	-.000039	7.723001	.0021845	.0019991	.0085115	.4524155

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9092865	8.089004	.0021488	-.000144	359.8551	-.000137	.0671624
Stddev	.0009090	.058097	.0002280	.000279	1.8390	.001966	.0001011
%RSD	.0999646	.7182197	10.60878	194.0121	.5110293	1429.835	.1505971
#1	.9102636	8.070560	.0019672	-.000139	360.8388	-.000806	.0670795
#2	.9091299	8.154084	.0024047	-.000426	357.7335	.002075	.0672751
#3	.9084660	8.042367	.0020746	.000133	360.9929	-.001682	.0671325

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.192033	.0572208	.0008743	-.018496	.0069298	1.384267	.1136819
Stddev	.008965	.0008821	.0001868	.001317	.0011849	.018527	.0001524
%RSD	.2808417	1.541602	21.35979	7.122079	17.09913	1.338378	.1340843
#1	3.181752	.0562595	.0006587	-.019500	.0058885	1.397280	.1138033
#2	3.196130	.0579930	.0009853	-.017004	.0066817	1.363055	.1135108
#3	3.198218	.0574100	.0009791	-.018983	.0082191	1.392465	.1137316

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3402-12 Acquired: 10/23/2025 15:47:29 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8237998	-.008199	.0925096
Stddev	.0036607	.000836	.0001129
%RSD	.4443691	10.19320	.1220085
#1	.8197298	-.008872	.0924009
#2	.8248467	-.007263	.0926262
#3	.8268231	-.008462	.0925017

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6609.729	93880.12	6086.919	5333.031	7112.646
Stddev	7.052	376.98	30.359	19.736	11.408
%RSD	.1066840	.4015500	.4987662	.3700778	.1603914
#1	6610.737	93446.97	6099.546	5327.239	7109.810
#2	6602.227	94134.02	6052.283	5355.015	7102.924
#3	6616.222	94059.38	6108.927	5316.838	7125.205

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3403-04 Acquired: 10/23/2025 15:51:47 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001219**	**.0001629**	**.0027985**	**.0038456**	**.0011016**	**.1617615**	**.2170027**
Stddev	.0015155	.0014411	.0008098	.0016851	.0017737	.0165703	.0005984
%RSD	1243.050	884.4384	28.93608	43.81774	161.0182	10.24367	.2757433
#1	-.000174	-.001253	.0031235	.0023183	.0027809	.1607183	.2171682
#2	-.001223	.000113	.0033953	.0035653	.0012774	.1788288	.2175008
#3	.001764	.001628	.0018767	.0056533	-.000754	.1457375	.2163389

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000327**	**-.000113**	**6.374759**	**.0015646**	**.0058933**	**.0050902**	**2.641858**
Stddev	.0000558	.000013	.020129	.0002629	.0001113	.0004143	.002147
%RSD	170.8663	11.33952	.3157661	16.80442	1.888179	8.139164	.0812541
#1	.0000533	-.000114	6.351516	.0016010	.0057651	.0054800	2.644073
#2	-.000031	-.000100	6.386280	.0018074	.0059500	.0046551	2.641713
#3	.000075	-.000126	6.386481	.0012854	.0059648	.0051354	2.639787

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.817680**	**1.111873**	**.0025068**	**-.000230**	**286.2345**	**-.004032**	**.0369502**
Stddev	.008662	.040326	.0002843	.000039	4.6449	.001696	.0002505
%RSD	.4765584	3.626837	11.34212	17.09935	1.622745	42.07984	.6779956
#1	1.822143	1.072515	.0022367	-.000206	291.3757	-.004473	.0372152
#2	1.823202	1.153101	.0024803	-.000209	282.3407	-.005464	.0367173
#3	1.807697	1.110004	.0028034	-.000275	284.9871	-.002158	.0369182

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3273396**	**.0054159**	**.0006396**	**-.020597**	**.0011288**	**.4171083**	**.0086845**
Stddev	.0456777	.0004790	.0001667	.000472	.0006603	.0216421	.0020047
%RSD	13.95421	8.843670	26.05610	2.293841	58.49540	5.188608	23.08385
#1	.2929005	.0053947	.0004474	-.020073	.0008021	.4366655	.0069654
#2	.3791556	.0059051	.0007424	-.020989	.0018887	.3938568	.0082016
#3	.3099628	.0049479	.0007292	-.020730	.0006955	.4208025	.0108866

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3403-04 Acquired: 10/23/2025 15:51:47 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1400827	-.010042	.0209514
Stddev	.0031345	.001243	.0001559
%RSD	2.237640	12.37733	.7440817
#1	.1380969	-.009506	.0208301
#2	.1384550	-.009157	.0211272
#3	.1436963	-.011463	.0208969

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6413.241	87867.42	5831.753	4877.533	6953.037
Stddev	21.134	297.81	33.029	20.071	24.987
%RSD	.3295364	.3389271	.5663586	.4115036	.3593695
#1	6393.046	87768.67	5833.935	4854.951	6929.071
#2	6411.474	87631.53	5797.687	4884.308	6951.106
#3	6435.203	88202.06	5863.636	4893.340	6978.933

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCV03 Acquired: 10/23/2025 15:56:09 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.957787**	**4.719896**	**5.016826**	**4.957112**	**4.844610**	**9.766885**	**9.593590**
Stddev	.018037	.049664	.006016	.020035	.019025	.035769	.041679
%RSD	.3638205	1.052234	.1199109	.4041642	.3927119	.3662245	.4344426
#1	4.974838	4.687738	5.023659	4.980211	4.863958	9.796170	9.626232
#2	4.938903	4.777096	5.014491	4.944456	4.825925	9.777464	9.607896
#3	4.959618	4.694855	5.012328	4.946669	4.843947	9.727020	9.546643

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2651287**	**2.520801**	**24.46848**	**1.026732**	**2.473524**	**1.239729**	**4.679391**
Stddev	.0031221	.004839	.09752	.004093	.004272	.003675	.039641
%RSD	1.177585	.1919503	.3985527	.3986478	.1726942	.2964496	.8471351
#1	.2665396	2.526388	24.57564	1.027117	2.478455	1.243786	4.684635
#2	.2672963	2.518063	24.38492	1.022460	2.470978	1.236622	4.637390
#3	.2615501	2.517952	24.44489	1.030619	2.471137	1.238778	4.716150

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.418623**	**24.79372**	**2.486888**	**1.234644**	**25.05129**	**2.429244**	**2.482177**
Stddev	.010539	.09551	.004264	.001249	.18442	.011561	.008845
%RSD	.4357618	.3852138	.1714717	.1011959	.7361879	.4759148	.3563470
#1	2.429127	24.88660	2.491811	1.236035	25.21210	2.442186	2.485181
#2	2.418694	24.69578	2.484362	1.233617	24.84998	2.425607	2.472221
#3	2.408049	24.79877	2.484490	1.234280	25.09180	2.419938	2.489129

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**24.84871**	**5.187746**	**4.929719**	**5.024115**	**4.818090**	**4.648759**	**5.052844**
Stddev	.18092	.066039	.019578	.010446	.013745	.049126	.004203
%RSD	.7280845	1.272973	.3971478	.2079194	.2852815	1.056749	.0831779
#1	24.79753	5.220712	4.951854	5.036173	4.833726	4.634732	5.054802
#2	24.69889	5.230812	4.914670	5.018336	4.807915	4.608172	5.048020
#3	25.04970	5.111714	4.922633	5.017835	4.812628	4.703372	5.055711

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCV03 Acquired: 10/23/2025 15:56:09 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.884290**	**4.726504**	**4.801404**
Stddev	.018736	.016482	.070633
%RSD	.3836055	.3487245	1.471084
#1	4.903030	4.741324	4.860032
#2	4.865558	4.729436	4.821192
#3	4.884282	4.708752	4.722988

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6811.342**	**96084.61**	**6047.304**	**5278.993**	**7349.603**
Stddev	3.541	487.69	46.720	46.837	10.056
%RSD	.0519797	.5075641	.7725769	.8872387	.1368301
#1	6814.928	96095.88	6021.387	5277.067	7360.362
#2	6811.249	96566.56	6019.287	5326.764	7340.440
#3	6807.849	95591.38	6101.238	5233.149	7348.008

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCB03 Acquired: 10/23/2025 16:11:18 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001954**	**-.000809**	**.0005416**	**.0011064**	**-.000309**	**-.013896**	**-.003042**
Stddev	.0009287	.001853	.0010996	.0035023	.001520	.013911	.001126
%RSD	475.2246	229.1259	203.0254	316.5344	492.4124	100.1090	37.02406
#1	.0011083	-.002866	.0008095	-.002675	.000524	-.013866	-.001844
#2	-.000748	-.000291	.0014825	.004239	.000613	.000000	-.004079
#3	.000226	.000730	-.000667	.001754	-.002063	-.027821	-.003202

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000035**	**-.000025**	**-.013773**	**-.000014**	**.0000140**	**-.000189**	**-.008578**
Stddev	.000092	.000061	.011264	.000213	.0000851	.000228	.008362
%RSD	261.6660	242.9408	81.78585	1525.417	608.6455	120.6247	97.48306
#1	.000068	.000044	-.017239	.000150	-.000067	.000074	-.018066
#2	-.000109	-.000072	-.001183	-.000255	.000103	-.000324	-.002280
#3	-.000066	-.000048	-.022896	.000063	.000006	-.000317	-.005389

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0004143**	**-.022099**	**-.000265**	**.0002544**	**.1633872**	**-.005098**	**-.000447**
Stddev	.0005310	.024220	.000229	.0000527	.0060406	.002348	.000266
%RSD	128.1673	109.5994	86.36133	20.70580	3.697132	46.05404	59.64902
#1	.0000225	-.035944	-.000118	.0002230	.1631481	-.003739	-.000165
#2	.0010187	.005868	-.000149	.0003152	.1574697	-.007809	-.000695
#3	.0002018	-.036220	-.000529	.0002251	.1695439	-.003746	-.000479

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2536985**	**-.007680**	**.0000472**	**-.006897**	**-.002132**	**.0167167**	**-.002924**
Stddev	.0576519	.000803	.0002317	.000323	.001172	.0140841	.000872
%RSD	22.72459	10.45379	490.4725	4.680633	54.98836	84.25158	29.81338
#1	.1874734	-.008253	.0002362	-.006556	-.000830	.0161283	-.002266
#2	.2809438	-.006762	.0001167	-.007198	-.002463	.0029360	-.002594
#3	.2926783	-.008024	-.000211	-.006937	-.003103	.0310858	-.003913

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCB03 Acquired: 10/23/2025 16:11:18 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**-.002025**	**.0033722**	**-.000045**
Stddev	.001577	.0025270	.000035
%RSD	77.91013	74.93638	77.30308
#1	-.000480	.0061588	-.000008
#2	-.001962	.0012292	-.000077
#3	-.003633	.0027286	-.000051

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7317.841**	**104766.3**	**6344.163**	**5725.788**	**8870.612**
Stddev	26.265	157.9	68.494	8.791	25.132
%RSD	.3589159	.1507283	1.079634	.1535404	.2833219
#1	7292.023	104756.2	6277.595	5735.142	8854.669
#2	7316.969	104929.1	6340.463	5724.528	8857.584
#3	7344.531	104613.7	6414.432	5717.695	8899.584

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3404-02 Acquired: 10/23/2025 16:15:32 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000746**	**-.000025**	**.0006147**	**.0033078**	**.0007852**	**.2332339**	**.1565735**
Stddev	.002942	.001417	.0007676	.0031214	.0015717	.0134283	.0038015
%RSD	394.1996	5643.426	124.8715	94.36507	200.1691	5.757444	2.427912
#1	-.002723	-.001344	.0000180	-.000278	.0009411	.2487114	.1522502
#2	-.002151	.001474	.0003455	.004787	-.000859	.2263046	.1580773
#3	.002635	-.000205	.0014807	.005414	.002273	.2246857	.1593931

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000005**	**.0000545**	**15.19132**	**.0018498**	**-.000059**	**.0006405**	**.3496821**
Stddev	.000037	.0000571	.05923	.0002350	.000035	.0001273	.0115339
%RSD	743.3898	104.8769	.3899241	12.70487	59.50555	19.88085	3.298386
#1	-.000045	.0000513	15.17615	.0016041	-.000034	.0007534	.3416102
#2	.000003	.0001132	15.14115	.0018728	-.000044	.0005025	.3628921
#3	.000027	-.000001	15.25666	.0020725	-.000099	.0006655	.3445440

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0103257**	**2.748207**	**.0000178**	**.0002543**	**298.2515**	**-.001026**	**.0719238**
Stddev	.0002731	.044568	.0003033	.0007075	4.6234	.003406	.0005561
%RSD	2.644954	1.621726	1702.118	278.2144	1.550181	331.8941	.7731589
#1	.0104284	2.751929	-.000326	.0009422	302.8888	-.003170	.0715932
#2	.0100162	2.701894	.000130	-.000471	293.6420	-.002811	.0725658
#3	.0105326	2.790798	.000249	.000292	298.2238	.002901	.0716124

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5722509**	**.0244551**	**.0006221**	**-.019556**	**.0052964**	**.7775376**	**.0151788**
Stddev	.0209732	.0008796	.0002217	.000243	.0019073	.0023483	.0009937
%RSD	3.665034	3.596854	35.64411	1.243038	36.01115	.3020165	6.546864
#1	.5593178	.0234867	.0006001	-.019788	.0032542	.7748508	.0157253
#2	.5964495	.0252045	.0004122	-.019303	.0056035	.7785642	.0157792
#3	.5609853	.0246741	.0008540	-.019577	.0070316	.7791978	.0140317

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3404-02 Acquired: 10/23/2025 16:15:32 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3094368	-.009349	.1285090
Stddev	.0009558	.000509	.0005973
%RSD	.3088822	5.446241	.4648119
#1	.3098732	-.009839	.1282634
#2	.3100964	-.009383	.1280736
#3	.3083406	-.008823	.1291899

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6772.392	92879.24	6063.997	5160.619	7319.172
Stddev	20.669	321.90	22.639	16.843	24.251
%RSD	.3052009	.3465801	.3733286	.3263713	.3313419
#1	6777.760	92519.40	6089.438	5146.861	7327.869
#2	6749.569	93139.82	6046.074	5155.593	7291.771
#3	6789.849	92978.50	6056.480	5179.402	7337.876

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3404-06 Acquired: 10/23/2025 16:19:53 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0057339	.0053958	.0037665	.0054858	.0028551	.0574566	.1451201
Stddev	.0020105	.0017339	.0007027	.0012471	.0013283	.0075590	.0000297
%RSD	35.06369	32.13368	18.65749	22.73377	46.52257	13.15596	.0204348
#1	.0053161	.0035608	.0030038	.0063663	.0023068	.0641770	.1451437
#2	.0079204	.0070068	.0039080	.0060325	.0018889	.0492730	.1450868
#3	.0039650	.0056198	.0043877	.0040587	.0043698	.0589197	.1451297

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000016	.0013589	19.81675	.0011382	.0013884	.0119791	.1420582
Stddev	.000067	.0000717	.04069	.0002134	.0001789	.0001402	.0034678
%RSD	421.5723	5.278231	.2053490	18.75002	12.88395	1.170414	2.441138
#1	-.000094	.0014357	19.80463	.0011852	.0015913	.0118174	.1439714
#2	.000024	.0013473	19.78349	.0009053	.0012535	.0120676	.1441480
#3	.000022	.0012936	19.86212	.0013243	.0013203	.0120522	.1380552

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1887631	3.564500	.0028681	-.000371	300.0100	-.002796	.2210605
Stddev	.0015867	.026672	.0000679	.000585	4.4201	.002739	.0003446
%RSD	.8405627	.7482539	2.366578	157.7607	1.473325	97.93218	.1558988
#1	.1896650	3.541320	.0028611	-.001026	303.5142	-.002305	.2206690
#2	.1869310	3.593651	.0029392	-.000185	301.4716	-.005747	.2213183
#3	.1896933	3.558529	.0028039	.000099	295.0442	-.000337	.2211941

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.953301	.0408627	.0005154	-.021623	-.000660	2.071171	.0210026
Stddev	.144838	.0017194	.0000676	.000284	.000240	.029634	.0007690
%RSD	1.617710	4.207725	13.11559	1.311817	36.37758	1.430772	3.661330
#1	9.072080	.0401094	.0005927	-.021919	-.000400	2.097461	.0218433
#2	8.791946	.0428301	.0004678	-.021595	-.000874	2.076995	.0203347
#3	8.995875	.0396485	.0004856	-.021354	-.000706	2.039058	.0208299

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3404-06 Acquired: 10/23/2025 16:19:53 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.223524	-.005419	.1635811
Stddev	.009204	.001651	.0012312
%RSD	.7522686	30.46725	.7526218
#1	1.233503	-.005563	.1634427
#2	1.215367	-.006993	.1624249
#3	1.221702	-.003701	.1648755

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6761.476	94478.15	6147.866	5301.722	7295.990
Stddev	10.196	245.01	61.601	3.312	14.291
%RSD	.1507988	.2593315	1.001989	.0624673	.1958814
#1	6768.187	94195.24	6215.812	5301.498	7309.524
#2	6749.743	94621.62	6095.668	5305.141	7281.046
#3	6766.499	94617.58	6132.118	5298.529	7297.400

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3416-01 Acquired: 10/23/2025 16:24:12 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0307700**	**-.004413**	**.2154016**	**-.004102**	**-.013391**	**71.70672**	**.3750235**
Stddev	.0025028	.001236	.0010037	.004589	.001125	.21676	.0011549
%RSD	8.133883	28.01537	.4659459	111.8653	8.402826	.3022896	.3079483
#1	.0281190	-.003850	.2162191	-.006458	-.013660	71.92504	.3759097
#2	.0330921	-.003558	.2157043	.001186	-.014357	71.49155	.3754433
#3	.0310987	-.005830	.2142815	-.007036	-.012155	71.70358	.3737174

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0089472**	**.0020976**	**141.5540**	**.1570566**	**.0977578**	**.3189564**	**194.6864**
Stddev	.0001474	.0002553	.2376	.0006318	.0003070	.0033899	1.2044
%RSD	1.647428	12.17275	.1678434	.4022843	.3140217	1.062816	.6186345
#1	.0090282	.0023838	141.8243	.1577825	.0980568	.3227618	193.4420
#2	.0087770	.0018933	141.4593	.1567567	.0977733	.3178478	195.8463
#3	.0090363	.0020157	141.3783	.1566306	.0974434	.3162595	194.7710

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.567493**	**110.9535**	**.1924734**	**-.006909**	**3.048296**	**.2763614**	**.4247386**
Stddev	.014139	.2548	.0012793	.000613	.049291	.0030738	.0014692
%RSD	.3963379	.2296391	.6646740	8.879409	1.616986	1.112234	.3458997
#1	3.577322	111.2016	.1938753	-.007507	2.991490	.2793864	.4235267
#2	3.573867	110.9665	.1921756	-.006939	3.079755	.2732411	.4263727
#3	3.551288	110.6925	.1913692	-.006281	3.073642	.2764568	.4243166

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.53031**	**.4132294**	**.0051501**	**.0019096**	**4.360200**	**7.020381**	**2.302468**
Stddev	.14583	.0060277	.0003236	.0004643	.010352	.095422	.012379
%RSD	1.384820	1.458673	6.283907	24.31436	.2374280	1.359216	.5376360
#1	10.36652	.4067926	.0051265	.0023101	4.356976	7.116910	2.290865
#2	10.57838	.4187409	.0048389	.0014007	4.351844	6.926106	2.315499
#3	10.64604	.4141548	.0054849	.0020181	4.371781	7.018127	2.301041

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3416-01 Acquired: 10/23/2025 16:24:12 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	6.960905	.1985652	-.041800
Stddev	.021310	.0020608	.001492
%RSD	.3061340	1.037864	3.570339
#1	6.936609	.1964054	-.040106
#2	6.969679	.2005103	-.042372
#3	6.976427	.1987800	-.042922

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7077.041	99749.79	6341.130	5597.306	6880.762
Stddev	29.406	164.46	60.261	5.091	23.122
%RSD	.4155187	.1648735	.9503118	.0909568	.3360357
#1	7050.526	99608.72	6271.737	5603.181	6860.788
#2	7071.929	99930.43	6380.266	5594.537	6875.406
#3	7108.668	99710.21	6371.389	5594.199	6906.092

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCV04 Acquired: 10/23/2025 16:43:50 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.958974**	**4.763144**	**5.019549**	**4.921921**	**4.833215**	**9.683821**	**9.849672**
Stddev	.010726	.217929	.002912	.021966	.008198	.015857	.013152
%RSD	.2162973	4.575315	.0580158	.4462944	.1696111	.1637489	.1335225
#1	4.971098	5.011275	5.022220	4.944767	4.826147	9.687869	9.848997
#2	4.950720	4.602800	5.019982	4.920042	4.842202	9.666332	9.863148
#3	4.955104	4.675356	5.016444	4.900955	4.831296	9.697262	9.836871

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2657734**	**2.522771**	**24.59570**	**1.003668**	**2.480666**	**1.241897**	**4.665252**
Stddev	.0012615	.003597	.01460	.000248	.001622	.002587	.008840
%RSD	.4746494	.1425656	.0593403	.0247255	.0653810	.2083087	.1894905
#1	.2644389	2.526780	24.57886	1.003937	2.481726	1.239055	4.657164
#2	.2659348	2.521707	24.60444	1.003448	2.481473	1.244115	4.674689
#3	.2669464	2.519827	24.60382	1.003621	2.478799	1.242522	4.663902

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.469437**	**24.63538**	**2.494000**	**1.220627**	**22.79958**	**2.427925**	**2.453408**
Stddev	.002793	.16300	.000468	.001965	.10879	.008197	.012174
%RSD	.1131078	.6616317	.0187754	.1609905	.4771389	.3376142	.4961927
#1	2.469743	24.45218	2.494353	1.218385	22.91720	2.436812	2.440365
#2	2.472064	24.68960	2.494177	1.221445	22.77895	2.420661	2.455389
#3	2.466503	24.76434	2.493468	1.222051	22.70259	2.426302	2.464469

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**23.49294**	**5.274128**	**4.887967**	**5.042060**	**4.869212**	**4.572035**	**5.159963**
Stddev	.03829	.033231	.006842	.015245	.004370	.009172	.024126
%RSD	.1629805	.6300800	.1399852	.3023582	.0897512	.2006008	.4675563
#1	23.53406	5.237771	4.895634	5.059494	4.866940	4.579355	5.186549
#2	23.48647	5.281677	4.885787	5.035452	4.866446	4.561747	5.139462
#3	23.45830	5.302935	4.882480	5.031234	4.874250	4.575003	5.153879

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCV04 Acquired: 10/23/2025 16:43:50 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**4.923279**	**4.710954**	**4.855829**
Stddev	.044506	.003732	.027784
%RSD	.9039973	.0792266	.5721699
#1	4.974083	4.713997	4.830119
#2	4.891168	4.712075	4.885303
#3	4.904586	4.706790	4.852066

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6871.509**	**97378.42**	**5984.404**	**5479.315**	**7371.778**
Stddev	7.321	425.70	37.143	16.023	9.518
%RSD	.1065465	.4371613	.6206586	.2924246	.1291194
#1	6878.193	97241.84	5999.100	5483.944	7370.263
#2	6872.651	97855.65	6011.950	5492.513	7381.964
#3	6863.684	97037.77	5942.161	5461.487	7363.109

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCB04 Acquired: 10/23/2025 16:47:54 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007488**	**-.000206**	**.0011532**	**-.000588**	**-.000752**	**-.007264**	**-.003225**
Stddev	.0013341	.001843	.0011703	.001379	.002091	.014798	.001896
%RSD	178.1684	896.1078	101.4792	234.4456	277.9444	203.7327	58.79159
#1	-.000753	-.002155	.0012652	-.002069	-.003163	-.019615	-.002216
#2	.001797	.000030	.0022634	.000658	.000574	-.011315	-.002047
#3	.001203	.001508	-.000069	-.000354	.000332	.009139	-.005413

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000074**	**.0000299**	**.0004482**	**.0001326**	**-.000101**	**.0000626**	**-.000286**
Stddev	.0000373	.0000319	.0137301	.0002397	.000196	.0003950	.008033
%RSD	503.7278	106.6299	3063.321	180.8059	193.4251	630.7617	2809.816
#1	.0000156	.0000602	-.007454	.0001909	-.000327	.0003001	-.009137
#2	-.000033	.0000328	.016302	.0003378	.000024	.0002811	.006542
#3	.000040	-.000003	-.007504	-.000131	-.000000	-.000393	.001737

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000010**	**-.000424**	**-.000047**	**-.000268**	**.1106199**	**-.002324**	**-.000270**
Stddev	.000381	.023260	.000410	.000111	.0349932	.001487	.000350
%RSD	3911.545	5487.521	868.1539	41.54330	31.63372	63.98378	129.3324
#1	-.000393	-.015605	-.000041	-.000249	.0714071	-.002099	-.000457
#2	-.000004	.026355	-.000461	-.000388	.1217826	-.000962	.000133
#3	.000368	-.012022	.000360	-.000168	.1386698	-.003910	-.000487

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2138007**	**.0075983**	**.0003626**	**-.006013**	**-.001928**	**.0030171**	**-.002280**
Stddev	.0253018	.0008367	.0002552	.000597	.001459	.0104402	.000741
%RSD	11.83431	11.01181	70.39187	9.928441	75.65899	346.0354	32.47910
#1	.2311641	.0085636	.0006531	-.005328	-.001208	.0029807	-.003134
#2	.2254677	.0071512	.0001743	-.006421	-.003607	-.007405	-.001808
#3	.1847704	.0070802	.0002603	-.006289	-.000970	.013475	-.001899

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCB04 Acquired: 10/23/2025 16:47:54 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001772	.0005120	.0000123
Stddev	.000275	.0015328	.0002090
%RSD	15.52262	299.3782	1693.752
#1	-.002066	-.000416	-.000008
#2	-.001731	-.000330	-.000186
#3	-.001520	.002281	.000231

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7238.838	103456.0	6225.608	5776.856	8778.653
Stddev	6.722	1410.0	150.642	86.193	8.565
%RSD	.0928641	1.362902	2.419719	1.492031	.0975702
#1	7231.584	105070.9	6140.735	5876.164	8771.357
#2	7244.858	102469.1	6136.551	5732.918	8788.084
#3	7240.071	102828.0	6399.538	5721.487	8776.517

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3412-04 Acquired: 10/23/2025 16:51:43 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001290**	**.0011918**	**.0134662**	**.0043915**	**.0018476**	**.0424968**	**.1030077**
Stddev	.002035	.0003314	.0008930	.0013697	.0006836	.0135266	.0012485
%RSD	157.7779	27.80951	6.631370	31.18989	36.99764	31.82973	1.212027
#1	-.003077	.0009433	.0126211	.0059290	.0026122	.0274101	.1023628
#2	.000925	.0015681	.0133771	.0033016	.0016347	.0465382	.1044468
#3	-.001717	.0010640	.0144004	.0039439	.0012958	.0535420	.1022136

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000078**	**-.000047**	**10.91131**	**.0006975**	**-.000108**	**.0058211**	**.0235212**
Stddev	.000019	.000043	.02766	.0003315	.000096	.0003143	.0114830
%RSD	23.96316	91.91194	.2534759	47.53359	88.82584	5.400059	48.82006
#1	-.000084	-.000026	10.89573	.0004098	-.000093	.0060170	.0154932
#2	-.000094	-.000018	10.89495	.0010601	-.000211	.0054586	.0183960
#3	-.000057	-.000097	10.94324	.0006226	-.000020	.0059879	.0366743

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0300155**	**.9865478**	**.0004387**	**.0001467**	**162.6933**	**-.000435**	**.0247166**
Stddev	.0001783	.0261493	.0002512	.0002984	.9858	.002951	.0000421
%RSD	.5939869	2.650590	57.26676	203.3114	.6059186	678.8833	.1702151
#1	.0300719	1.015944	.0001774	-.000184	163.4352	.001653	.0247471
#2	.0298158	.965877	.0006785	.000228	163.0701	-.003810	.0247340
#3	.0301587	.977821	.0004603	.000396	161.5747	.000853	.0246686

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6845847**	**.0124275**	**.0007988**	**-.020830**	**.0003693**	**.8356714**	**.0679861**
Stddev	.0203700	.0009231	.0001989	.000109	.0007923	.0106816	.0027749
%RSD	2.975524	7.428315	24.90411	.5224927	214.5278	1.278209	4.081532
#1	.6783314	.0120135	.0007774	-.020866	-.000469	.8382924	.0678254
#2	.6680744	.0117838	.0006114	-.020916	.000471	.8239232	.0708378
#3	.7073482	.0134852	.0010076	-.020708	.001106	.8447986	.0652951

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3412-04 Acquired: 10/23/2025 16:51:43 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2281703	-.011223	.0815328
Stddev	.0024129	.000949	.0001730
%RSD	1.057496	8.459729	.2121951
#1	.2281299	-.010645	.0816731
#2	.2257778	-.010704	.0815859
#3	.2306031	-.012318	.0813395

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6373.455	90496.25	5700.173	4988.185	7032.969
Stddev	13.388	280.39	1.292	18.790	11.351
%RSD	.2100610	.3098312	.0226619	.3766889	.1613996
#1	6360.756	90437.83	5700.115	4975.651	7021.882
#2	6372.169	90249.67	5701.493	4979.113	7032.458
#3	6387.439	90801.24	5698.911	5009.789	7044.567

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3412-04DUP Acquired: 10/23/2025 16:55:57 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0008555**	**.0008515**	**.0125991**	**.0047707**	**.0023471**	**.0433971**	**.0949397**
Stddev	.0006555	.0016197	.0007404	.0003387	.0004144	.0117830	.0033624
%RSD	76.61446	190.2122	5.876591	7.098810	17.65663	27.15167	3.541644
#1	.0005021	.0022976	.0122105	.0051474	.0026744	.0470162	.0910583
#2	.0004527	-.000899	.0121340	.0044915	.0024857	.0529462	.0969638
#3	.0016119	.001156	.0134529	.0046732	.0018811	.0302290	.0967970

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000001**	**-.000086**	**10.30080**	**.0007962**	**-.000259**	**.0056413**	**.0302081**
Stddev	.000023	.000057	.13373	.0002692	.000151	.0002848	.0031542
%RSD	4061.235	66.24610	1.298277	33.81137	58.14121	5.047729	10.44159
#1	.000026	-.000121	10.15425	.0009716	-.000103	.0058663	.0281961
#2	-.000011	-.000117	10.41622	.0004862	-.000403	.0053212	.0338433
#3	-.000017	-.000020	10.33193	.0009308	-.000271	.0057365	.0285848

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0391592**	**.9118435**	**.0006426**	**.0001397**	**153.1376**	**-.004526**	**.0250016**
Stddev	.0004488	.0167507	.0003343	.0002530	1.8613	.000396	.0002196
%RSD	1.146183	1.837019	52.02267	181.1522	1.215471	8.749210	.8783117
#1	.0387309	.8939980	.0009248	-.000087	154.7034	-.004416	.0251094
#2	.0396261	.9143056	.0007297	.000093	153.6297	-.004965	.0251464
#3	.0391207	.9272270	.0002734	.000413	151.0796	-.004196	.0247489

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7478422**	**.0078362**	**.0004500**	**-.018382**	**.0000197**	**.8188847**	**.0643140**
Stddev	.0432531	.0010716	.0002840	.000721	.0005733	.0138355	.0007926
%RSD	5.783720	13.67486	63.12092	3.919822	2904.264	1.689551	1.232428
#1	.7533839	.0068502	.0005956	-.018037	-.000404	.8298535	.0633992
#2	.7880573	.0089766	.0001227	-.019210	.000672	.8234594	.0647477
#3	.7020853	.0076818	.0006317	-.017899	-.000209	.8033413	.0647951

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3412-04DUP Acquired: 10/23/2025 16:55:57 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2816665	-.012251	.0761126
Stddev	.0010733	.002923	.0009204
%RSD	.3810552	23.85823	1.209333
#1	.2827781	-.010178	.0750873
#2	.2815853	-.010981	.0768677
#3	.2806361	-.015594	.0763826

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6748.049	94223.15	6103.497	5177.624	7453.284
Stddev	18.109	511.65	67.696	42.444	20.798
%RSD	.2683576	.5430210	1.109134	.8197571	.2790442
#1	6728.756	93734.33	6181.553	5144.048	7430.562
#2	6764.679	94180.19	6068.112	5163.492	7471.379
#3	6750.712	94754.93	6060.827	5225.331	7457.912

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3412-04LX5 Acquired: 10/23/2025 17:00:11 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007020	.0031208	.0018093	.0008443	-.001651	.0057435	.0212790
Stddev	.0012765	.0015359	.0011172	.0005207	.001871	.0084798	.0025846
%RSD	181.8319	49.21450	61.74691	61.66705	113.2925	147.6414	12.14612
#1	-.000547	.0017405	.0005193	.0011590	-.000765	-.000856	.0242397
#2	.002004	.0028467	.0024565	.0011307	-.000389	.002779	.0201236
#3	.000649	.0047753	.0024522	.0002433	-.003801	.015308	.0194737

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000024	-.000040	2.150520	.0002145	-.000017	.0010267	-.007855
Stddev	.000023	.000025	.030260	.0001075	.000116	.0002197	.015774
%RSD	95.38472	62.50905	1.407116	50.10147	672.5487	21.39916	200.8144
#1	-.000022	-.000057	2.163734	.0001382	-.000151	.0012660	.005518
#2	-.000002	-.000011	2.171926	.0001680	.000059	.0009802	-.025250
#3	-.000049	-.000052	2.115900	.0003374	.000040	.0008340	-.003832

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0059947	.1979452	-.000077	.0000447	31.17673	-.003175	.0045332
Stddev	.0004495	.0244805	.000267	.0001838	.10451	.002975	.0001412
%RSD	7.498292	12.36733	344.6323	410.9149	.3352229	93.70359	3.114761
#1	.0054878	.1705948	.000185	.0000750	31.11576	-.003239	.0045430
#2	.0063450	.2178060	-.000349	-.000152	31.29740	-.006119	.0043873
#3	.0061512	.2054349	-.000068	.000212	31.11702	-.000169	.0046692

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3627731	-.002146	.0001437	-.008026	-.001712	.1693390	.0103732
Stddev	.0558768	.000108	.0000824	.000199	.001029	.0136063	.0000536
%RSD	15.40268	5.019212	57.35103	2.482225	60.13041	8.034950	.5168412
#1	.3394291	-.002047	.0000510	-.007879	-.000994	.1554446	.0103517
#2	.3223537	-.002261	.0002087	-.007947	-.002891	.1826376	.0104343
#3	.4265364	-.002130	.0001713	-.008253	-.001250	.1699348	.0103337

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3412-04LX5 Acquired: 10/23/2025 17:00:11 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0479950	.0051986	.0163197
Stddev	.0001970	.0036316	.0000508
%RSD	.4104838	69.85852	.3112971
#1	.0479711	.0013694	.0163303
#2	.0482028	.0085936	.0163644
#3	.0478109	.0056328	.0162645

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6983.805	98534.78	6064.126	5410.588	7997.922
Stddev	86.660	494.69	39.053	30.183	98.577
%RSD	1.240864	.5020506	.6440003	.5578486	1.232534
#1	6894.829	98590.26	6022.933	5420.791	7894.021
#2	6988.642	98999.39	6100.612	5434.347	8009.611
#3	7067.945	98014.68	6068.831	5376.626	8090.133

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3412-04MS Acquired: 10/23/2025 17:04:25 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8069009**	**1.625399**	**.9737080**	**2.001936**	**.7765724**	**1.958714**	**.4040799**
Stddev	.0019175	.034303	.0031489	.005807	.0032208	.032081	.0016464
%RSD	.2376309	2.110409	.3233957	.2900504	.4147512	1.637837	.4074518
#1	.8047150	1.597562	.9707217	2.005325	.7749029	1.994502	.4035491
#2	.8082985	1.614915	.9769976	2.005251	.7802852	1.932540	.4027642
#3	.8076893	1.663721	.9734048	1.995231	.7745291	1.949099	.4059262

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1810016**	**.2002643**	**24.03758**	**.3751707**	**.1989834**	**.3051243**	**2.983910**
Stddev	.0010737	.0007613	.09629	.0017363	.0004516	.0004582	.013288
%RSD	.5931895	.3801458	.4005731	.4628110	.2269294	.1501771	.4453086
#1	.1815538	.2002239	24.09869	.3771725	.1988465	.3050396	2.969662
#2	.1797642	.2010450	23.92658	.3742657	.1994876	.3056190	2.995963
#3	.1816867	.1995240	24.08746	.3740737	.1986162	.3047144	2.986105

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2586763**	**3.961172**	**.4995596**	**.0692917**	**367.1033**	**.2912954**	**.2565575**
Stddev	.0022977	.079527	.0022830	.0003719	3.7705	.0052054	.0009094
%RSD	.8882463	2.007653	.4570107	.5366598	1.027107	1.786992	.3544749
#1	.2601243	4.052919	.4992189	.0696666	371.4567	.2952843	.2576045
#2	.2560270	3.918677	.5019938	.0689229	364.8709	.2931949	.2559640
#3	.2598777	3.911922	.4974660	.0692856	364.9824	.2854069	.2561040

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.95295**	**.2957713**	**.4067768**	**.6898160**	**.1886405**	**2.639656**	**6.367566**
Stddev	.05910	.0031882	.0011367	.0015356	.0020956	.014819	.008694
%RSD	.4944436	1.077915	.2794384	.2226049	1.110919	.5613930	.1365281
#1	12.00157	.2980989	.4056577	.6883960	.1907881	2.656237	6.359294
#2	11.97010	.2921375	.4079303	.6914456	.1866010	2.635026	6.376627
#3	11.88717	.2970776	.4067424	.6896065	.1885323	2.627704	6.366776

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3412-04MS Acquired: 10/23/2025 17:04:25 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4918733	.1748702	.3590337
Stddev	.0026009	.0009012	.0028482
%RSD	.5287797	.5153621	.7932972
#1	.4897094	.1738649	.3603123
#2	.4947589	.1756056	.3557703
#3	.4911517	.1751402	.3610186

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6552.218	91166.29	5964.698	5211.247	6955.773
Stddev	16.837	373.43	26.486	24.793	23.521
%RSD	.2569733	.4096126	.4440443	.4757623	.3381512
#1	6557.681	91093.69	5953.769	5186.123	6964.071
#2	6533.327	90834.50	5994.899	5211.925	6929.228
#3	6565.645	91570.69	5945.425	5235.695	6974.020

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3412-04MSD Acquired: 10/23/2025 17:08:33 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7883263	1.659072	.9443003	1.977810	.7584095	1.929436	.3907441
Stddev	.0058455	.071149	.0027816	.011860	.0014829	.018314	.0024543
%RSD	.7415111	4.288462	.2945643	.5996383	.1955322	.9492143	.6281093
#1	.7824972	1.579728	.9418377	1.964137	.7591680	1.943003	.3929732
#2	.7941881	1.680290	.9473173	1.985321	.7593597	1.936702	.3881140
#3	.7882938	1.717197	.9437459	1.983970	.7567007	1.908603	.3911451

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1754500	.1947270	23.59961	.3659335	.1932216	.2959841	2.934124
Stddev	.0009073	.0001632	.02087	.0011379	.0007084	.0003662	.035938
%RSD	.5171166	.0838086	.0884313	.3109631	.3666437	.1237362	1.224844
#1	.1746190	.1945443	23.57748	.3646641	.1933033	.2963287	2.896362
#2	.1764180	.1948584	23.60242	.3668620	.1938856	.2955995	2.938102
#3	.1753130	.1947783	23.61893	.3662745	.1924758	.2960242	2.967908

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2518391	3.958920	.4842767	.0679440	362.9373	.2798524	.2503040
Stddev	.0014850	.010060	.0004859	.0001802	1.6674	.0009894	.0010178
%RSD	.5896670	.2541010	.1003264	.2652034	.4594179	.3535439	.4066256
#1	.2501846	3.959574	.4848332	.0680707	364.0990	.2808693	.2491824
#2	.2522760	3.948550	.4839364	.0680235	363.6861	.2788929	.2511688
#3	.2530565	3.968637	.4840606	.0677377	361.0268	.2797951	.2505608

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.83142	.2819353	.3966346	.6664970	.1853238	2.634603	6.207119
Stddev	.07227	.0008434	.0009383	.0020724	.0018988	.032597	.032065
%RSD	.6108698	.2991358	.2365578	.3109312	1.024566	1.237279	.5165899
#1	11.78850	.2815260	.3955512	.6642138	.1869116	2.602364	6.174132
#2	11.79090	.2829052	.3971668	.6682588	.1832205	2.633899	6.238175
#3	11.91486	.2813747	.3971857	.6670185	.1858392	2.667547	6.209051

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3412-04MSD Acquired: 10/23/2025 17:08:33 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4800720	.1740668	.3506486
Stddev	.0075411	.0032531	.0008252
%RSD	1.570835	1.868899	.2353473
#1	.4728036	.1736502	.3498196
#2	.4878591	.1710421	.3506559
#3	.4795532	.1775082	.3514701

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6919.425	96499.20	6400.710	5420.825	7357.324
Stddev	36.038	315.03	1.581	22.427	36.587
%RSD	.5208279	.3264535	.0247080	.4137102	.4972849
#1	6881.681	96779.27	6402.465	5400.273	7318.952
#2	6923.122	96560.19	6399.395	5444.745	7361.203
#3	6953.472	96158.14	6400.269	5417.457	7391.816

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3412-04A Acquired: 10/23/2025 17:12:41 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7822790	1.608536	.9373411	1.949377	.7732554	1.877425	.2761941
Stddev	.0015493	.057065	.0004299	.005647	.0011112	.005587	.0010531
%RSD	.1980547	3.547647	.0458582	.2896856	.1436997	.2975851	.3812699
#1	.7839584	1.673176	.9372366	1.953903	.7733728	1.879723	.2751694
#2	.7809052	1.565140	.9378136	1.943049	.7743033	1.881497	.2761397
#3	.7819734	1.587292	.9369731	1.951179	.7720903	1.871056	.2772733

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1762964	.1926004	11.07337	.3710420	.1922226	.2947323	2.868339
Stddev	.0007287	.0000805	.04721	.0014762	.0005553	.0003159	.025945
%RSD	.4133390	.0417938	.4263090	.3978600	.2888742	.1071683	.9045234
#1	.1756364	.1926853	11.04843	.3697032	.1916559	.2948549	2.898057
#2	.1770784	.1925251	11.12782	.3707976	.1927657	.2943735	2.850195
#3	.1761743	.1925909	11.04387	.3726252	.1922462	.2949685	2.856767

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2146604	2.799417	.4841864	.0690228	161.4446	.2829073	.2253152
Stddev	.0004849	.033320	.0009873	.0007702	.3966	.0037890	.0006189
%RSD	.2258724	1.190256	.2039014	1.115822	.2456625	1.339322	.2746841
#1	.2143828	2.784333	.4834565	.0687420	161.8639	.2818985	.2249734
#2	.2152202	2.837612	.4853097	.0698940	161.0754	.2870986	.2260296
#3	.2143781	2.776306	.4837930	.0684325	161.3944	.2797247	.2249425

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.26650	.2741684	.4078429	.6728148	.1832681	1.675167	5.813831
Stddev	.06814	.0027439	.0004831	.0016530	.0006157	.002775	.022871
%RSD	.6637101	1.000817	.1184609	.2456846	.3359421	.1656269	.3933825
#1	10.34084	.2712139	.4073008	.6740876	.1838612	1.672429	5.829680
#2	10.20701	.2766369	.4079997	.6709466	.1833109	1.677977	5.787612
#3	10.25164	.2746542	.4082281	.6734102	.1826321	1.675095	5.824200

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3412-04A Acquired: 10/23/2025 17:12:41 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2060758	.1685295	.2533876
Stddev	.0008625	.0036535	.0009331
%RSD	.4185420	2.167847	.3682293
#1	.2063241	.1645254	.2538213
#2	.2051164	.1693813	.2540248
#3	.2067870	.1716819	.2523166

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6894.680	95408.31	6316.848	5221.760	7534.850
Stddev	18.444	347.54	43.738	47.003	22.660
%RSD	.2675143	.3642690	.6924009	.9001294	.3007366
#1	6883.544	95808.16	6356.448	5274.795	7518.690
#2	6884.525	95237.97	6269.902	5185.256	7525.108
#3	6915.970	95178.80	6324.195	5205.230	7560.752

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3406-02 Acquired: 10/23/2025 17:16:42 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000816**	**-.001050**	**.0024771**	**.0050393**	**.0012947**	**.0374106**	**.1386329**
Stddev	.001222	.001939	.0004944	.0016934	.0015011	.0063388	.0001532
%RSD	149.8449	184.6951	19.95977	33.60427	115.9392	16.94385	.1104941
#1	-.000284	-.002802	.0029832	.0069937	.0029102	.0420934	.1387669
#2	.000050	-.001383	.0024528	.0040088	-.000057	.0301974	.1384659
#3	-.002214	.001034	.0019952	.0041154	.001031	.0399409	.1386659

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000581**	**.0001207**	**9.736103**	**.0008057**	**.0001733**	**.0032462**	**.0320304**
Stddev	.0000608	.0000815	.028530	.0003251	.0000593	.0001322	.0032750
%RSD	104.6868	67.49307	.2930336	40.35464	34.21929	4.072564	10.22451
#1	.0000899	.0000905	9.711289	.0011808	.0002190	.0033946	.0314083
#2	.0000965	.0000587	9.729745	.0006047	.0001945	.0031411	.0355718
#3	-.000012	.0002130	9.767276	.0006316	.0001063	.0032030	.0291111

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0525327**	**2.387751**	**.0004958**	**.0000868**	**318.6673**	**-.002825**	**.0807005**
Stddev	.0008520	.005900	.0005705	.0002870	1.7747	.002243	.0005392
%RSD	1.621770	.2470865	115.0688	330.4617	.5568999	79.39573	.6681126
#1	.0519585	2.386204	.0006662	.0004182	317.0565	-.004491	.0801658
#2	.0521281	2.394270	.0009617	-.000074	320.5697	-.003710	.0812440
#3	.0535116	2.382779	-.000140	-.000084	318.3756	-.000275	.0806916

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.606418**	**.0199778**	**.0004991**	**-.020689**	**-.001189**	**.2733380**	**.0234699**
Stddev	.048935	.0001009	.0001663	.000459	.000583	.0099429	.0014607
%RSD	3.046220	.5051554	33.32382	2.217711	49.00598	3.637576	6.223756
#1	1.554819	.0199705	.0003800	-.020889	-.001138	.2836315	.0251512
#2	1.652163	.0198808	.0006892	-.020164	-.001795	.2725949	.0227463
#3	1.612271	.0200823	.0004282	-.021014	-.000633	.2637875	.0225123

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3406-02 Acquired: 10/23/2025 17:16:42 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4838109	-.010699	.0815341
Stddev	.0052436	.001245	.0003792
%RSD	1.083812	11.63460	.4650357
#1	.4840083	-.009310	.0819213
#2	.4889530	-.011714	.0811635
#3	.4784714	-.011074	.0815175

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6933.374	96586.14	6440.648	5362.174	7484.019
Stddev	9.560	204.61	31.180	12.406	12.282
%RSD	.1378837	.2118451	.4841086	.2313566	.1641146
#1	6933.462	96789.42	6414.587	5376.376	7487.954
#2	6923.770	96380.22	6475.192	5353.449	7470.252
#3	6942.890	96588.78	6432.166	5356.698	7493.852

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCV05 Acquired: 10/23/2025 17:21:03 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.208886**	**4.742518**	**5.245956**	**5.179932**	**5.071832**	**10.19392**
Stddev	.013336	.106307	.014823	.005669	.018864	.02293
%RSD	.2560182	2.241582	.2825583	.1094421	.3719382	.2249120
#1	5.224168	4.635954	5.260593	5.182051	5.093417	10.16803
#2	5.202884	4.743033	5.246321	5.184237	5.063574	10.21168
#3	5.199607	4.848567	5.230954	5.173509	5.058506	10.20204

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.26100**	**.2465954**	**2.636174**	**25.79230**	**.9670709**	**2.591963**
Stddev	.03589	.0019527	.005676	.03879	.0016728	.005472
%RSD	.3497926	.7918523	.2153245	.1503860	.1729744	.2111318
#1	10.22379	.2485612	2.640553	25.82977	.9682762	2.597283
#2	10.26379	.2465689	2.638208	25.79483	.9677754	2.592256
#3	10.29541	.2446561	2.629761	25.75232	.9651611	2.586350

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.298372**	**4.915210**	**2.576676**	**25.89061**	**2.607275**	**1.289299**
Stddev	.005098	.024633	.006778	.03331	.006976	.004237
%RSD	.3926112	.5011567	.2630637	.1286753	.2675654	.3286529
#1	1.304171	4.887371	2.572883	25.90603	2.614560	1.294101
#2	1.296346	4.934181	2.572643	25.85237	2.606611	1.286085
#3	1.294599	4.924078	2.584501	25.91341	2.600655	1.287711

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.14992**	**2.560149**	**2.595002**	**25.48502**	F **5.544685**	**5.118762**
Stddev	.09142	.004178	.005837	.11264	.029788	.014136
%RSD	.3635118	.1631754	.2249404	.4419662	.5372264	.2761531
#1	25.05624	2.555412	2.601742	25.39316	5.578175	5.134637
#2	25.15461	2.561730	2.591568	25.45121	5.534727	5.114114
#3	25.23891	2.563305	2.591696	25.61069	5.521152	5.107536

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCV05 Acquired: 10/23/2025 17:21:03 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal 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	**5.263527**	**5.092100**	**4.782530**	**5.362029**	**5.134463**	**4.917152**
Stddev	.010994	.005061	.038757	.006346	.016527	.010821
%RSD	.2088619	.0993957	.8103941	.1183450	.3218837	.2200731
#1	5.269150	5.093023	4.742628	5.356799	5.115567	4.904854
#2	5.270572	5.096636	4.784932	5.360201	5.146223	4.921384
#3	5.250859	5.086640	4.820031	5.369088	5.141599	4.925218

Elem	Sr4077
Units	ppm
Avg	**5.060789**
Stddev	.012992
%RSD	.2567271
#1	5.069948
#2	5.066501
#3	5.045920

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6676.658**	**95465.88**	**5912.228**	**5310.456**	**7177.092**
Stddev	23.034	156.25	17.027	13.325	23.507
%RSD	.3449970	.1636688	.2879911	.2509227	.3275262
#1	6657.001	95587.82	5902.988	5309.303	7164.531
#2	6670.970	95289.75	5901.819	5297.746	7162.533
#3	6702.004	95520.07	5931.877	5324.321	7204.211

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCB05 Acquired: 10/23/2025 17:25:49 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009021**	**.0018393**	**.0010307**	**.0001781**	**.0001126**	**.0013183**
Stddev	.0023354	.0007536	.0004415	.0033726	.0019526	.0085167
%RSD	258.8727	40.97132	42.83208	1893.286	1733.893	646.0468
#1	-.000344	.0023480	.0012911	.0019691	-.001470	.0043374
#2	.003596	.0021963	.0012800	-.003712	.002295	.0079141
#3	-.000546	.0009735	.0005210	.002277	-.000487	-.008297

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0034578**	**.0000232**	**-.000051**	**-.008044**	**.0000552**	**-.000039**
Stddev	.0003559	.0000545	.000031	.006242	.0004314	.000051
%RSD	10.29297	234.8112	60.76963	77.60704	781.5578	128.3230
#1	.0031686	-.000030	-.000077	-.013454	-.000352	-.000050
#2	.0038553	.000022	-.000017	-.009463	.000011	.000015
#3	.0033497	.000078	-.000058	-.001214	.000507	-.000084

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000606**	**.0009051**	**-.000739**	**-.010738**	**-.000137**	**-.000001**
Stddev	.0003352	.0011523	.000419	.034789	.000290	.000419
%RSD	553.1628	127.3147	56.70415	323.9835	211.3953	33677.98
#1	.0004207	.0005043	-.001219	-.039281	-.000437	-.000084
#2	-.000242	.0022043	-.000550	-.020946	.000142	.000454
#3	.000003	.0000067	-.000447	.028013	-.000117	-.000373

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.5519881**	**-.000396**	**-.000165**	**.5478516**	**-.001091**	**.0002586**
Stddev	.0312187	.001075	.000134	.0638993	.001244	.0001865
%RSD	5.655684	271.4971	80.94011	11.66362	114.0939	72.10029
#1	.5278958	.000414	-.000319	.4753578	.000346	.0000783
#2	.5408118	-.001616	-.000103	.5721989	-.001848	.0002468
#3	.5872566	.000014	-.000074	.5959983	-.001770	.0004507

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCB05 Acquired: 10/23/2025 17:25:49 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.004814**	**-.003015**	**.0142748**	**-.002981**	**.0072262**	F **.0150644**
Stddev	.000235	.002978	.0202323	.001255	.0025463	.0005430
%RSD	4.878060	98.77283	141.7343	42.10211	35.23763	3.604261
#1	-.005065	.000232	-.000174	-.004412	.0097874	.0156211
#2	-.004778	-.003657	.037398	-.002466	.0071963	.0150358
#3	-.004599	-.005619	.005601	-.002065	.0046949	.0145363

Elem	Sr4077
Units	ppm
Avg	**-.000074**
Stddev	.000054
%RSD	72.92959
#1	-.000091
#2	-.000014
#3	-.000119

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6855.747**	**97856.19**	**5931.822**	**5438.254**	**8221.121**
Stddev	8.898	370.16	72.468	45.887	12.848
%RSD	.1297824	.3782652	1.221687	.8437889	.1562841
#1	6861.229	97812.94	5849.397	5453.663	8230.426
#2	6845.481	97509.56	5960.536	5386.645	8206.461
#3	6860.531	98246.07	5985.533	5474.454	8226.475

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170185BL Acquired: 10/23/2025 17:30:03 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0015390	.0001523	.0001190	.0004379	-.000396	-.014449	-.001054
Stddev	.0007585	.0007480	.0002520	.0019372	.001433	.004839	.001085
%RSD	49.28680	491.1100	211.7645	442.3960	361.4468	33.48616	102.9552
#1	.0023981	-.000115	-.000127	-.001061	-.000821	-.020005	.000067
#2	.0009619	-.000425	.000377	-.000251	.001201	-.012181	-.001129
#3	.0012570	.000997	.000107	.002625	-.001569	-.011162	-.002099

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000238	-.000069	-.001784	.0000294	-.000101	-.000032	-.003759
Stddev	.0000365	.000040	.011764	.0002947	.000174	.000128	.008992
%RSD	153.1994	58.43618	659.2619	1000.907	172.7673	398.8312	239.2020
#1	-.000010	-.000064	-.004629	-.000271	-.000120	-.000180	-.001273
#2	.000063	-.000032	-.011865	.000317	.000082	.000032	.003728
#3	.000018	-.000111	.011141	.000042	-.000265	.000051	-.013732

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000908	-.006948	-.000183	.0003276	.2761097	-.001246	-.000297
Stddev	.000707	.023747	.000152	.0006070	.0230286	.002995	.000382
%RSD	77.88225	341.8083	83.10451	185.2671	8.340384	240.4347	128.7213
#1	-.000219	.010850	-.000096	.0010229	.2505074	.001634	-.000578
#2	-.001631	-.033912	-.000094	.0000569	.2826894	-.004344	-.000451
#3	-.000873	.002220	-.000359	-.000097	.2951324	-.001027	.000138

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4283593	-.005818	-.000034	-.006107	.0001444	.0058209	-.001707
Stddev	.0280313	.000497	.000275	.000927	.0007595	.0098435	.000775
%RSD	6.543864	8.538596	806.3256	15.18193	525.9080	169.1076	45.43119
#1	.4048789	-.006391	-.000312	-.005047	.0000722	.0076248	-.001203
#2	.4208055	-.005555	-.000029	-.006505	.0009374	.0146377	-.002600
#3	.4593934	-.005508	.000238	-.006769	-.000576	-.004800	-.001318

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170185BL Acquired: 10/23/2025 17:30:03 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0010428	.0045944	-.000065
Stddev	.0023575	.0006946	.000130
%RSD	226.0751	15.11905	200.0410
#1	.0034285	.0040328	-.000176
#2	.0009853	.0053712	.000078
#3	-.001285	.0043793	-.000097

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7251.827	103095.3	6364.353	5657.127	8835.649
Stddev	32.011	208.8	47.862	21.738	42.464
%RSD	.4414255	.2025764	.7520365	.3842647	.4805951
#1	7215.164	102854.2	6322.907	5632.969	8787.124
#2	7266.084	103216.5	6353.413	5675.110	8853.822
#3	7274.232	103215.3	6416.738	5663.302	8866.003

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170185BS Acquired: 10/23/2025 17:34:19 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7806961	1.764956	.9562115	1.966293	.7651103	1.933489
Stddev	.0007655	.073435	.0025018	.006492	.0024210	.006586
%RSD	.0980575	4.160735	.2616418	.3301595	.3164290	.3406490
#1	.7815359	1.684458	.9577350	1.966355	.7626921	1.934307
#2	.7805149	1.782123	.9575754	1.959771	.7675342	1.926532
#3	.7800374	1.828287	.9533240	1.972754	.7651045	1.939628

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1896164	.1917835	.1914649	1.009991	.3773287	.1931365
Stddev	.0047689	.0016072	.0003591	.006882	.0034026	.0002086
%RSD	2.515031	.8380387	.1875697	.6813744	.9017612	.1079889
#1	.1940733	.1926439	.1910510	1.017918	.3812555	.1930551
#2	.1901888	.1899292	.1916936	1.006496	.3752503	.1933735
#3	.1845871	.1927773	.1916503	1.005557	.3754804	.1929809

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3075669	2.785791	.1953769	1.990569	.4858537	.0711315
Stddev	.0006731	.008830	.0010274	.013603	.0005351	.0003568
%RSD	.2188521	.3169541	.5258691	.6833710	.1101314	.5016386
#1	.3077167	2.779861	.1962412	2.004910	.4854188	.0713537
#2	.3081525	2.795939	.1942410	1.977849	.4864512	.0713209
#3	.3068315	2.781573	.1956486	1.988947	.4856911	.0707199

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.776257	.2878765	.2026018	9.314016	.3036035	.3849577
Stddev	.015044	.0034307	.0014286	.053035	.0031495	.0010964
%RSD	.5418698	1.191712	.7051430	.5694078	1.037382	.2848181
#1	2.792751	.2843334	.2041742	9.294637	.3042791	.3841156
#2	2.763290	.2881139	.2022475	9.374015	.3001709	.3845599
#3	2.772730	.2911824	.2013836	9.273396	.3063604	.3861975

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170185BS Acquired: 10/23/2025 17:34:19 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6512288	.1816911	.8145454	5.653882	F .0027735	.1924489
Stddev	.0004964	.0004831	.0131960	.009865	.0017520	.0020384
%RSD	.0762191	.2658946	1.620046	.1744735	63.17068	1.059181
#1	.6506559	.1822215	.8196302	5.644702	.0043304	.1941768
#2	.6515304	.1812761	.8244426	5.652633	.0008763	.1902008
#3	.6515000	.1815758	.7995634	5.664312	.0031138	.1929690

Elem	Sr4077
Units	ppm
Avg	.1857159
Stddev	.0007257
%RSD	.3907408
#1	.1860698
#2	.1848812
#3	.1861967

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6981.123	98537.64	6128.599	5376.331	8054.551
Stddev	10.448	809.64	30.917	38.423	7.242
%RSD	.1496595	.8216544	.5044635	.7146736	.0899104
#1	6970.045	97629.31	6109.387	5347.918	8051.425
#2	6982.525	98800.20	6164.263	5361.026	8049.397
#3	6990.799	99183.42	6112.148	5420.048	8062.831

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3385-04 Acquired: 10/23/2025 17:38:20 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002243**	**.0017016**	**.0038591**	**.0044314**	**.0036843**	**.0636023**	**.0219896**
Stddev	.002722	.0016258	.0007224	.0020111	.0012361	.0087436	.0002093
%RSD	121.3538	95.54185	18.71941	45.38400	33.55017	13.74735	.9518077
#1	-.000436	.0001079	.0033052	.0066957	.0037305	.0550201	.0219818
#2	-.005373	.0016394	.0035960	.0028530	.0048966	.0724988	.0222026
#3	-.000919	.0033576	.0046762	.0037453	.0024257	.0632880	.0217843

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000076**	**.0000225**	**29.41373**	**.0022191**	**.0009545**	**.1533420**	**.3690585**
Stddev	.000029	.0000972	.06583	.0003454	.0001882	.0001484	.0172144
%RSD	38.43754	432.7792	.2238084	15.56248	19.71628	.0967715	4.664400
#1	-.000075	-.000086	29.48026	.0023122	.0008846	.1535120	.3498610
#2	-.000047	.000100	29.41230	.0018367	.0011676	.1532752	.3831210
#3	-.000105	.000053	29.34862	.0025083	.0008112	.1532388	.3741937

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0585760**	**7.345301**	**.0055024**	**.0000578**	**694.9004**	**-.003437**	**.3549012**
Stddev	.0002993	.029688	.0001712	.0001898	12.2108	.003402	.0011013
%RSD	.5109010	.4041708	3.111260	328.4546	1.757197	98.98178	.3103075
#1	.0586171	7.316430	.0053050	.0002747	684.2118	-.006998	.3561531
#2	.0588526	7.375743	.0055922	-.000024	692.2813	-.000221	.3540819
#3	.0582583	7.343731	.0056100	-.000078	708.2083	-.003092	.3544686

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.405658**	**.0181432**	**.0018236**	**-.018673**	**-.000617**	**3.012389**	**3.002689**
Stddev	.064303	.0007747	.0000551	.000681	.000362	.020945	.013283
%RSD	1.888121	4.269803	3.022132	3.648873	58.72123	.6952950	.4423843
#1	3.388043	.0189924	.0018127	-.018646	-.000384	2.988635	2.990721
#2	3.351998	.0174752	.0017748	-.019367	-.001034	3.020329	3.000365
#3	3.476933	.0179619	.0018834	-.018005	-.000432	3.028203	3.016981

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3385-04 Acquired: 10/23/2025 17:38:20 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**8.128289**	**-.011000**	**.1054665**
Stddev	.025809	.002314	.0004490
%RSD	.3175217	21.03472	.4257303
#1	8.103201	-.013275	.1059849
#2	8.126902	-.011074	.1051994
#3	8.154763	-.008650	.1052152

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6250.214**	**86370.91**	**6052.299**	**4862.109**	**6573.959**
Stddev	17.245	544.09	64.877	13.151	7.307
%RSD	.2759029	.6299425	1.071939	.2704755	.1111498
#1	6230.368	86737.46	5978.345	4851.793	6568.736
#2	6261.547	86629.53	6099.622	4857.617	6582.309
#3	6258.726	85745.75	6078.931	4876.918	6570.831

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3385-04DUP Acquired: 10/23/2025 17:42:39 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.002279**	**.0039434**	**.0035788**	**.0058407**	**.0046051**	**.0861984**	**.0177483**
Stddev	.002573	.0012143	.0012314	.0016431	.0024439	.0052622	.0037173
%RSD	112.8702	30.79342	34.40904	28.13216	53.07001	6.104802	20.94439
#1	-.000259	.0050183	.0050003	.0042753	.0025778	.0801266	.0197928
#2	-.001403	.0026262	.0028369	.0056949	.0039185	.0890320	.0199945
#3	-.005176	.0041857	.0028993	.0075518	.0073188	.0894367	.0134575

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000060**	**-.000074**	**29.68342**	**.0017720**	**.0008840**	**.1522977**	**.3653843**
Stddev	.000078	.000114	.24469	.0001626	.0002206	.0001738	.0112176
%RSD	130.9099	154.0352	.8243414	9.174860	24.95475	.1140986	3.070088
#1	-.000150	-.000163	29.93495	.0019196	.0006639	.1524045	.3668779
#2	-.000008	-.000114	29.44619	.0015978	.0008830	.1520972	.3757803
#3	-.000021	.000055	29.66914	.0017985	.0011050	.1523915	.3534947

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0593352**	**7.292570**	**.0054083**	**-.000041**	**683.4575**	**-.003181**	**.3479634**
Stddev	.0003556	.019564	.0002254	.000716	3.8433	.003229	.0008726
%RSD	.5993452	.2682732	4.168019	1730.934	.5623314	101.5041	.2507633
#1	.0589324	7.283015	.0051601	-.000822	686.7503	-.006444	.3473431
#2	.0596059	7.279620	.0056002	.000112	679.2345	-.003113	.3489612
#3	.0594672	7.315076	.0054645	.000586	684.3876	.000013	.3475860

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.429065**	**.0179067**	**.0021526**	**-.019691**	**.0010666**	**2.914090**	**3.023531**
Stddev	.041153	.0010925	.0002627	.000355	.0015479	.025929	.012100
%RSD	1.200115	6.101060	12.20260	1.803847	145.1189	.8897739	.4001977
#1	3.382971	.0189067	.0018631	-.019489	.0007821	2.905814	3.029719
#2	3.442109	.0180726	.0022191	-.020101	.0027371	2.893310	3.009589
#3	3.462115	.0167407	.0023757	-.019483	-.000319	2.943147	3.031286

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3385-04DUP Acquired: 10/23/2025 17:42:39 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**8.033324**	**-.011263**	**.1081030**
Stddev	.030896	.003119	.0008326
%RSD	.3846033	27.69480	.7701944
#1	8.041408	-.007961	.1088200
#2	7.999190	-.011670	.1071898
#3	8.059376	-.014160	.1082992

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6236.971**	**86534.26**	**5858.706**	**4935.853**	**6539.086**
Stddev	23.931	263.24	38.653	8.129	24.552
%RSD	.3836986	.3042078	.6597576	.1646966	.3754604
#1	6260.197	86486.92	5814.415	4926.466	6559.690
#2	6238.324	86817.97	5885.627	4940.462	6545.646
#3	6212.392	86297.91	5876.076	4940.629	6511.920

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3385-04LX5 Acquired: 10/23/2025 17:46:57 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008709	.0034245	.0010261	-.000154	.0005466	.0156728	.0038153
Stddev	.0016683	.0019296	.0001519	.001250	.0013714	.0057325	.0021442
%RSD	191.5689	56.34677	14.80805	810.8679	250.8821	36.57592	56.20063
#1	.0007367	.0022634	.0011013	-.001465	-.000983	.0097261	.0053822
#2	-.000726	.0023582	.0011257	-.000021	.000955	.0211638	.0013716
#3	.002602	.0056519	.0008512	.001024	.001668	.0161284	.0046920

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000450	-.000046	5.832947	.0003995	.0001599	.0304147	.0602210
Stddev	.0000361	.000084	.048076	.0000820	.0001117	.0002483	.0045921
%RSD	80.22935	180.3864	.8242072	20.53520	69.82342	.8163298	7.625391
#1	.0000848	.000030	5.877008	.0003682	.0000397	.0303003	.0613510
#2	.0000142	-.000033	5.781672	.0003377	.0001796	.0306996	.0551694
#3	.0000361	-.000136	5.840160	.0004926	.0002604	.0302443	.0641427

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0121449	1.424461	.0006598	.0004022	135.7017	-.000189	.0658751
Stddev	.0004899	.024655	.0003179	.0003606	.8752	.003382	.0004042
%RSD	4.033669	1.730835	48.18362	89.66972	.6449565	1785.892	.6135707
#1	.0118250	1.452760	.0008279	.0000313	134.7151	.003696	.0663011
#2	.0119008	1.413002	.0002931	.0004236	136.0054	-.001800	.0658272
#3	.0127089	1.407620	.0008584	.0007516	136.3846	-.002464	.0654970

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.896015	-.003106	-.000064	-.008541	.0021107	.5479550	.5569144
Stddev	.085826	.000326	.000242	.001039	.0020465	.0060119	.0040875
%RSD	4.526671	10.49138	380.2606	12.16957	96.95812	1.097159	.7339484
#1	1.933756	-.002977	-.000167	-.007375	.0026417	.5546664	.5615181
#2	1.797786	-.003477	.000213	-.009369	.0038393	.5430629	.5555138
#3	1.956504	-.002865	-.000236	-.008879	-.000149	.5461355	.5537115

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3385-04LX5 Acquired: 10/23/2025 17:46:57 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.467169	.0393270	.0210537
Stddev	.005783	.0028986	.0001481
%RSD	.3941757	7.370410	.7033162
#1	1.470882	.0364396	.0210770
#2	1.460505	.0393048	.0208954
#3	1.470118	.0422366	.0211888

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6719.170	94489.62	6058.315	5320.030	7374.849
Stddev	15.409	210.77	79.053	24.431	21.645
%RSD	.2293290	.2230575	1.304864	.4592318	.2934920
#1	6707.211	94519.78	5974.152	5313.375	7354.654
#2	6713.740	94683.68	6131.004	5347.099	7372.195
#3	6736.559	94265.40	6069.788	5299.615	7397.698

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3385-05 Acquired: 10/23/2025 17:51:08 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8165154**	**1.607447**	**.9708657**	**2.004232**	**.7874498**	**2.018818**	**.2143842**
Stddev	.0029139	.032610	.0038275	.009519	.0005892	.005830	.0028741
%RSD	.3568677	2.028657	.3942351	.4749337	.0748243	.2888056	1.340606
#1	.8142177	1.644823	.9685601	2.013706	.7868906	2.018581	.2159794
#2	.8155355	1.592723	.9687530	1.994669	.7873937	2.024764	.2110663
#3	.8197929	1.584797	.9752839	2.004321	.7880650	2.013110	.2161068

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1820291**	**.2050181**	**37.79987**	**.3880604**	**.2038470**	**.4872416**	**3.657608**
Stddev	.0024270	.0008166	.06886	.0007488	.0005374	.0015591	.056715
%RSD	1.333277	.3983276	.1821698	.1929692	.2636123	.3199874	1.550609
#1	.1803576	.2043154	37.80313	.3887806	.2033276	.4857081	3.691822
#2	.1809168	.2048249	37.72944	.3881147	.2038128	.4871915	3.688861
#3	.1848128	.2059140	37.86704	.3872859	.2044007	.4888251	3.592141

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2624565**	**9.497247**	**.5135209**	**.0717316**	**705.8628**	**.2954665**	**.5951289**
Stddev	.0010311	.058987	.0018418	.0006569	10.3773	.0039639	.0002400
%RSD	.3928714	.6210915	.3586553	.9157340	1.470155	1.341575	.0403252
#1	.2614878	9.467751	.5120456	.0715153	700.6093	.2934113	.5950194
#2	.2635404	9.458826	.5129321	.0724694	699.1628	.2929523	.5949632
#3	.2623412	9.565163	.5155851	.0712103	717.8163	.3000359	.5954041

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**14.35314**	**.2854390**	**.4124839**	**.6646382**	**.1882469**	**4.080484**	**9.552096**
Stddev	.20116	.0050866	.0006019	.0027300	.0003435	.032750	.036427
%RSD	1.401539	1.782017	.1459113	.4107544	.1824560	.8026064	.3813459
#1	14.39513	.2825448	.4119345	.6631554	.1885407	4.082083	9.567126
#2	14.53000	.2824599	.4123902	.6629705	.1878693	4.112405	9.510560
#3	14.13430	.2913122	.4131272	.6677888	.1883308	4.046963	9.578603

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3385-05 Acquired: 10/23/2025 17:51:08 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**8.072229**	**.1793587**	**.3214505**
Stddev	.049579	.0023652	.0009091
%RSD	.6141894	1.318708	.2828193
#1	8.105405	.1790221	.3217823
#2	8.015236	.1771798	.3204220
#3	8.096046	.1818742	.3221470

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6116.552**	**83309.61**	**5714.005**	**4690.461**	**6398.943**
Stddev	15.895	262.60	85.563	11.568	23.549
%RSD	.2598758	.3152072	1.497418	.2466383	.3680217
#1	6127.910	83608.49	5762.039	4700.763	6418.519
#2	6123.358	83204.48	5764.758	4692.673	6405.500
#3	6098.386	83115.88	5615.219	4677.945	6372.810

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3385-06 Acquired: 10/23/2025 17:55:16 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8774984	1.785865	1.035984	2.176852	.8446116	2.088050	.2230729
Stddev	.0033949	.025557	.000789	.008198	.0032024	.014337	.0003469
%RSD	.3868786	1.431059	.0761507	.3766173	.3791558	.6866317	.1555168
#1	.8779900	1.815254	1.036465	2.184458	.8431652	2.104355	.2233283
#2	.8738845	1.773483	1.035074	2.168168	.8423876	2.082382	.2226779
#3	.8806206	1.768857	1.036415	2.177930	.8482821	2.077413	.2232125

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1951691	.2195069	33.39453	.4171805	.2171114	.4843499	3.597866
Stddev	.0016991	.0000689	.08943	.0003485	.0007060	.0007862	.040992
%RSD	.8705597	.0313850	.2677865	.0835330	.3251534	.1623256	1.139351
#1	.1970751	.2194821	33.41685	.4169958	.2178374	.4850893	3.557195
#2	.1946186	.2195848	33.29606	.4169632	.2164273	.4835240	3.597230
#3	.1938135	.2194539	33.47069	.4175824	.2170694	.4844366	3.639173

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2657290	9.751466	.5490195	.0763141	700.6099	.3122560	.5971432
Stddev	.0014037	.038253	.0021368	.0004671	14.9068	.0053266	.0063690
%RSD	.5282261	.3922791	.3892089	.6120718	2.127692	1.705858	1.066569
#1	.2645420	9.724679	.5505275	.0763208	689.9846	.3061132	.6041504
#2	.2653667	9.795275	.5465742	.0767778	694.1948	.3155963	.5955730
#3	.2672783	9.734443	.5499568	.0758437	717.6504	.3150586	.5917063

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.10432	.3033439	.4391948	.7405325	.2007124	4.042032	9.901250
Stddev	.14205	.0036073	.0016117	.0003041	.0012346	.027532	.023765
%RSD	.9404586	1.189176	.3669744	.0410673	.6150978	.6811462	.2400226
#1	15.02990	.3074366	.4400915	.7406120	.1995403	4.035845	9.921771
#2	15.01494	.3019681	.4373342	.7401965	.2005956	4.018120	9.875211
#3	15.26812	.3006270	.4401588	.7407889	.2020012	4.072131	9.906767

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3385-06 Acquired: 10/23/2025 17:55:16 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**8.359639**	**.1880036**	**.3074124**
Stddev	.034451	.0018435	.0002059
%RSD	.4121128	.9805487	.0669945
#1	8.361758	.1868804	.3071867
#2	8.324177	.1869992	.3075901
#3	8.392982	.1901311	.3074605

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6078.952**	**83791.57**	**5740.236**	**4661.349**	**6360.648**
Stddev	8.142	389.22	38.860	33.573	9.065
%RSD	.1339339	.4645102	.6769690	.7202521	.1425111
#1	6069.552	83527.09	5696.017	4622.717	6351.531
#2	6083.481	84238.50	5768.945	4677.862	6360.753
#3	6083.822	83609.11	5755.746	4683.467	6369.660

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3385-04A Acquired: 10/23/2025 17:59:24 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8896717**	**1.754092**	**1.044731**	**2.214043**	**.8575272**	**2.100558**	**.2264733**
Stddev	.0072891	.024296	.003020	.010037	.0038752	.012952	.0014299
%RSD	.8192964	1.385103	.2890979	.4533148	.4519014	.6165775	.6313767
#1	.8824430	1.728463	1.043948	2.206782	.8530885	2.089124	.2248358
#2	.8895525	1.776788	1.048066	2.209850	.8592563	2.097926	.2274749
#3	.8970196	1.757024	1.042180	2.225496	.8602369	2.114623	.2271093

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1970280**	**.2204300**	**31.10404**	**.4087494**	**.2178245**	**.4705215**	**3.684982**
Stddev	.0011132	.0005221	.12032	.0014161	.0004968	.0009723	.022600
%RSD	.5649967	.2368378	.3868407	.3464586	.2280728	.2066398	.6133130
#1	.1977635	.2198316	30.98257	.4086132	.2172840	.4695305	3.666945
#2	.1957473	.2206665	31.10637	.4074063	.2179283	.4705599	3.677668
#3	.1975732	.2207920	31.22318	.4102287	.2182611	.4714740	3.710334

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2662997**	**9.554164**	**.5516050**	**.0779483**	**726.6668**	**.3145027**	**.6040290**
Stddev	.0022910	.008799	.0015335	.0002270	4.6043	.0044434	.0265247
%RSD	.8603138	.0921006	.2780090	.2912467	.6336143	1.412838	4.391297
#1	.2653490	9.564190	.5498511	.0782104	730.9675	.3185952	.6346406
#2	.2646371	9.550575	.5526930	.0778203	721.8096	.3151365	.5878530
#3	.2689130	9.547726	.5522709	.0778141	727.2233	.3097765	.5895933

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**15.38336**	**.3132432**	**.4342340**	**.7582371**	**.2010042**	**4.049684**	**9.976665**
Stddev	.14768	.0016310	.0015100	.0026423	.0026534	.032606	.026637
%RSD	.9599894	.5206749	.3477484	.3484740	1.320071	.8051527	.2669898
#1	15.21457	.3150807	.4324937	.7553608	.1979436	4.012676	9.946140
#2	15.48878	.3119669	.4350094	.7587937	.2024116	4.074185	9.995192
#3	15.44671	.3126819	.4351987	.7605567	.2026574	4.062191	9.988665

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3385-04A Acquired: 10/23/2025 17:59:24 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	8.283062	.1979267	.3030963
Stddev	.043766	.0018774	.0018656
%RSD	.5283831	.9485412	.6155024
#1	8.241323	.1959553	.3011253
#2	8.279254	.1996933	.3033289
#3	8.328607	.1981315	.3048346

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6079.803	82526.22	5754.374	4646.524	6327.267
Stddev	13.331	446.03	54.626	36.116	15.272
%RSD	.2192708	.5404716	.9492901	.7772645	.2413677
#1	6084.293	82794.27	5748.321	4659.783	6332.286
#2	6064.806	82773.06	5811.774	4674.136	6310.117
#3	6090.309	82011.34	5703.027	4605.653	6339.397

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3412-01 Acquired: 10/23/2025 18:03:32 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0689966**	**-.002097**	**1.465894**	**-.008740**	**-.014697**	**145.9123**
Stddev	.0012404	.002697	.004571	.001482	.000316	.2080
%RSD	1.797780	128.5981	.3118133	16.95314	2.147754	.1425584
#1	.0701693	-.005212	1.465563	-.007431	-.014381	145.9517
#2	.0676981	-.000571	1.461497	-.010349	-.015012	145.6874
#3	.0691223	-.000510	1.470621	-.008441	-.014697	146.0978

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.126032**	**.0227068**	**.0045895**	**37.68975**	**.2077377**	**.1917928**
Stddev	.002589	.0002548	.0002078	.10811	.0002020	.0003544
%RSD	.2299604	1.122136	4.527490	.2868362	.0972557	.1847763
#1	1.128476	.0226282	.0043778	37.81216	.2079494	.1915813
#2	1.126300	.0225005	.0045976	37.64973	.2075470	.1915951
#3	1.123319	.0229916	.0047931	37.60736	.2077166	.1922019

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6216943**	**335.0159**	**8.421562**	**71.70882**	**.3976026**	**-.011277**
Stddev	.0011241	1.2090	.028279	.17568	.0011030	.000817
%RSD	.1808134	.3608785	.3357976	.2449865	.2774018	7.242674
#1	.6229324	335.2392	8.443441	71.91085	.3971172	-.010931
#2	.6214125	336.0978	8.431615	71.62359	.3968255	-.010690
#3	.6207378	333.7109	8.389630	71.59202	.3988650	-.012210

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.69387**	**.3790925**	**.9439447**	**24.30163**	**.0947121**	**.0066556**
Stddev	.07337	.0072343	.0007309	.11102	.0084602	.0001213
%RSD	.6273834	1.908324	.0774345	.4568531	8.932525	1.822418
#1	11.66418	.3754602	.9437173	24.29304	.0850816	.0067697
#2	11.77743	.3874233	.9447623	24.41669	.0981079	.0065282
#3	11.64000	.3743942	.9433545	24.19514	.1009467	.0066688

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3412-01 Acquired: 10/23/2025 18:03:32 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4206667	5.142651	7.841323	F 10.65815	.9426001	.3762786
Stddev	.0020409	.002647	.042248	.05468	.0079036	.0018169
%RSD	.4851640	.0514703	.5387930	.5130772	.8384848	.4828667
#1	.4183146	5.145180	7.792585	10.59555	.9370582	.3743123
#2	.4219698	5.142872	7.867528	10.69661	.9516505	.3766282
#3	.4217156	5.139900	7.863855	10.68230	.9390916	.3778953

Elem	Sr4077
Units	ppm
Avg	-.033518
Stddev	.000600
%RSD	1.788996
#1	-.033216
#2	-.034209
#3	-.033130

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8028.474	111811.8	7115.498	6289.894	6694.442
Stddev	11.153	458.5	8.294	13.546	10.341
%RSD	.1389150	.4100369	.1165685	.2153659	.1544759
#1	8019.262	111891.6	7111.874	6291.425	6699.481
#2	8040.873	111318.7	7109.632	6275.647	6701.299
#3	8025.286	112225.2	7124.988	6302.610	6682.548

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3412-01DUP Acquired: 10/23/2025 18:07:33 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0704973**	**-.002547**	**1.455795**	**-.004998**	**-.016347**	**144.4782**
Stddev	.0026482	.002536	.002878	.002288	.004076	.2103
%RSD	3.756492	99.57093	.1977244	45.76730	24.93400	.1455434
#1	.0711850	-.004489	1.458877	-.003357	-.018176	144.5589
#2	.0727339	.000322	1.453176	-.007611	-.011677	144.6362
#3	.0675731	-.003473	1.455331	-.004027	-.019188	144.2395

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.111670**	**.0225388**	**.0046049**	**37.48852**	**.2082246**	**.1925936**
Stddev	.004472	.0000670	.0003213	.07349	.0002738	.0004878
%RSD	.4022335	.2973628	6.976461	.1960341	.1315074	.2532588
#1	1.107527	.0226128	.0049361	37.46988	.2085405	.1920821
#2	1.111074	.0224822	.0045840	37.56953	.2080775	.1926451
#3	1.116410	.0225214	.0042946	37.42614	.2080558	.1930535

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6237089**	**333.4944**	**8.330739**	**70.87442**	**.3991026**	**-.011080**
Stddev	.0016721	3.7647	.012273	.07532	.0007374	.001316
%RSD	.2680929	1.128862	.1473174	.1062684	.1847527	11.87572
#1	.6254757	329.4231	8.324270	70.89108	.3985678	-.012222
#2	.6234999	334.2106	8.323054	70.94002	.3987963	-.011377
#3	.6221511	336.8496	8.344893	70.79217	.3999438	-.009641

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.44821**	**.3784458**	**.9389901**	**23.81588**	**.0861732**	**.0066152**
Stddev	.15558	.0028351	.0022030	.28177	.0177313	.0002700
%RSD	1.489085	.7491374	.2346127	1.183113	20.57630	4.081763
#1	10.28762	.3805524	.9373224	23.50350	.0677626	.0063684
#2	10.45878	.3795627	.9381604	23.89331	.0876206	.0065736
#3	10.59825	.3752224	.9414875	24.05084	.1031364	.0069036

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3412-01DUP Acquired: 10/23/2025 18:07:33 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4021156	5.102757	8.056132	F 10.67117	.9224520	.3628938
Stddev	.0024116	.008011	.084792	.06438	.0123476	.0008165
%RSD	.5997174	.1569982	1.052511	.6032613	1.338559	.2250115
#1	.4007711	5.101532	7.972058	10.67186	.9250401	.3619573
#2	.4006760	5.095428	8.141624	10.60645	.9090154	.3632671
#3	.4048997	5.111310	8.054713	10.73519	.9333003	.3634570

Elem	Sr4077
Units	ppm
Avg	-.035158
Stddev	.002920
%RSD	8.305705
#1	-.031789
#2	-.036717
#3	-.036967

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8010.448	111064.8	7099.548	6281.474	6684.623
Stddev	5.878	324.1	51.126	26.255	1.146
%RSD	.0733832	.2917855	.7201248	.4179725	.0171403
#1	8004.741	111415.0	7041.998	6291.589	6684.441
#2	8010.120	111003.9	7116.927	6301.167	6685.849
#3	8016.484	110775.6	7139.718	6251.666	6683.579

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCV06 Acquired: 10/23/2025 18:11:33 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.205684**	**4.661784**	**5.315220**	**5.190573**	**5.070388**	**10.22663**
Stddev	.007463	.039359	.003804	.014731	.006173	.01887
%RSD	.1433619	.8442913	.0715738	.2837948	.1217523	.1845299
#1	5.201032	4.641254	5.314379	5.190469	5.077047	10.20793
#2	5.214292	4.707163	5.319374	5.205355	5.069262	10.22630
#3	5.201727	4.636934	5.311906	5.175894	5.064856	10.24566

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.02224**	**.2525454**	**2.669837**	**25.69186**	**.9867608**	**2.613598**
Stddev	.04879	.0037116	.001432	.10695	.0011816	.001303
%RSD	.4867787	1.469656	.0536301	.4162630	.1197444	.0498562
#1	9.96599	.2489995	2.669678	25.56838	.9879832	2.612666
#2	10.05306	.2522338	2.671341	25.75242	.9866744	2.615087
#3	10.04766	.2564029	2.668491	25.75478	.9856248	2.613041

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.308236**	**4.844588**	**2.534276**	**26.12288**	**2.632012**	**1.316550**
Stddev	.002024	.048864	.015906	.14657	.001713	.002066
%RSD	.1546745	1.008622	.6276347	.5610710	.0650700	.1569213
#1	1.309267	4.853235	2.516563	26.05674	2.633953	1.318871
#2	1.309537	4.888550	2.547338	26.02105	2.630713	1.315863
#3	1.305905	4.791977	2.538927	26.29087	2.631371	1.314914

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**23.79038**	**2.558686**	**2.630712**	**25.26040**	F **5.665947**	**5.153742**
Stddev	.24090	.011556	.009459	.15423	.078640	.004552
%RSD	1.012611	.4516382	.3595424	.6105496	1.387938	.0883155
#1	23.83831	2.547166	2.632428	25.28063	5.595854	5.153019
#2	24.00372	2.570278	2.639194	25.40351	5.651000	5.158612
#3	23.52912	2.558615	2.620512	25.09705	5.750988	5.149596

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCV06 Acquired: 10/23/2025 18:11:33 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal 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	**5.296165**	**5.028120**	**4.821742**	**5.443368**	**5.138184**	**4.823940**
Stddev	.003898	.024345	.037572	.012585	.012311	.035082
%RSD	.0736012	.4841693	.7792144	.2311904	.2396038	.7272543
#1	5.295102	5.004209	4.825466	5.431810	5.128201	4.784282
#2	5.300484	5.052876	4.857314	5.456775	5.151940	4.836616
#3	5.292909	5.027275	4.782448	5.441518	5.134410	4.850923

Elem	Sr4077
Units	ppm
Avg	**5.091868**
Stddev	.118372
%RSD	2.324728
#1	4.957486
#2	5.137421
#3	5.180696

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6647.258**	**92997.03**	**5772.859**	**5134.768**	**7148.935**
Stddev	7.132	326.21	75.526	29.833	5.116
%RSD	.1072879	.3507703	1.308286	.5810049	.0715664
#1	6644.322	93019.12	5850.648	5124.313	7145.273
#2	6642.063	92660.34	5768.108	5111.570	7146.751
#3	6655.389	93311.63	5699.821	5168.422	7154.781

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCB06 Acquired: 10/23/2025 18:15:36 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000419**	**.0024792**	**.0005513**	**-.003244**	**.0000752**	**-.006732**
Stddev	.001580	.0022410	.0010478	.001766	.0009273	.003343
%RSD	377.5289	90.39270	190.0391	54.42263	1233.661	49.66447
#1	-.001478	.0008339	.0016934	-.005282	.0002618	-.009349
#2	.001398	.0050315	.0003262	-.002262	-.000931	-.002966
#3	-.001176	.0015722	-.000366	-.002188	.000895	-.007880

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0078569**	**.0001509**	**-.000072**	**.0061812**	**.0002290**	**.0000015**
Stddev	.0025075	.0000276	.000059	.0209025	.0001840	.0001755
%RSD	31.91462	18.28916	81.90789	338.1630	80.35999	11513.52
#1	.0054965	.0001238	-.000139	.0259125	.0000225	.0001656
#2	.0075848	.0001790	-.000042	-.015723	.0003754	.0000225
#3	.0104893	.0001499	-.000034	.008354	.0002890	-.000184

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000171**	**-.007313**	**-.000006**	**-.018693**	**-.000113**	**.0003505**
Stddev	.000204	.003255	.000750	.020464	.000124	.0003317
%RSD	119.3418	44.50676	11730.17	109.4737	110.4229	94.65655
#1	-.000379	-.004384	.000529	-.031901	.000001	.0007028
#2	.000028	-.006737	.000315	.004880	-.000093	.0003044
#3	-.000161	-.010816	-.000864	-.029058	-.000245	.0000442

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6906419**	**-.007119**	**-.000263**	**.7845548**	**-.001828**	**.0003056**
Stddev	.0531995	.001184	.000112	.1138553	.000430	.0002508
%RSD	7.702908	16.63714	42.80992	14.51208	23.53523	82.06051
#1	.6574737	-.007011	-.000312	.6679849	-.002317	.0005797
#2	.6624478	-.008354	-.000342	.7901936	-.001508	.0002493
#3	.7520042	-.005992	-.000134	.8954859	-.001658	.0000878

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCB06 Acquired: 10/23/2025 18:15:36 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.004380**	**-.001120**	**.0111478**	**-.002741**	F **.0115912**	F **.0128241**
Stddev	.000398	.001607	.0169402	.000217	.0012948	.0012229
%RSD	9.078514	143.5318	151.9601	7.931164	11.17066	9.535633
#1	-.004392	.000512	.0127067	-.002776	.0113265	.0121107
#2	-.003977	-.002701	-.006518	-.002508	.0104492	.0142361
#3	-.004772	-.001171	.027255	-.002938	.0129979	.0121255

Elem	Sr4077
Units	ppm
Avg	**-.000026**
Stddev	.000142
%RSD	547.0062
#1	.000132
#2	-.000142
#3	-.000068

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6975.086**	**97566.40**	**6015.920**	**5324.583**	**8405.442**
Stddev	13.398	1162.77	26.459	55.417	14.548
%RSD	.1920883	1.191772	.4398200	1.040786	.1730807
#1	6961.752	96994.68	5992.618	5288.837	8391.541
#2	6974.957	98904.34	6044.684	5388.420	8404.225
#3	6988.548	96800.17	6010.459	5296.490	8420.561

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3412-01LX5 Acquired: 10/23/2025 18:19:51 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0149012	.0046853	.2461186	.0001417	-.005026	31.85092	.2533969
Stddev	.0011913	.0020813	.0003493	.0018370	.002002	.11543	.0022149
%RSD	7.994779	44.42217	.1419084	1296.517	39.84564	.3624067	.8740655
#1	.0136255	.0046959	.2457932	-.000595	-.002771	31.72239	.2513927
#2	.0150933	.0025987	.2460749	.002233	-.005707	31.88461	.2557749
#3	.0159848	.0067613	.2464876	-.001212	-.006598	31.94575	.2530231

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0050905	-.000120	8.572625	.0484306	.0347213	.1478993	71.14363
Stddev	.0000535	.000015	.023827	.0002344	.0002225	.0006840	.50766
%RSD	1.050478	12.12458	.2779398	.4840284	.6409591	.4624397	.7135752
#1	.0051216	-.000112	8.545945	.0481919	.0349730	.1477954	71.13820
#2	.0051211	-.000137	8.580150	.0486605	.0346406	.1486292	70.63870
#3	.0050287	-.000112	8.591781	.0484393	.0345504	.1472732	71.65398

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.940869	15.81922	.0718660	-.002912	2.457721	.0850525	.2102689
Stddev	.005258	.01653	.0003460	.000379	.021202	.0016828	.0006701
%RSD	.2709004	.1044885	.4814124	12.99917	.8626826	1.978501	.3186671
#1	1.934800	15.80477	.0718649	-.003256	2.437205	.0849804	.2102884
#2	1.944075	15.83725	.0722125	-.002974	2.456409	.0834070	.2109289
#3	1.943729	15.81565	.0715206	-.002506	2.479549	.0867702	.2095892

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.272351	.0072867	.0012622	.0324156	1.083144	.8022573	1.898111
Stddev	.109836	.0010916	.0001794	.0005001	.004533	.0106628	.005685
%RSD	2.083246	14.98109	14.21269	1.542843	.4185348	1.329095	.2995342
#1	5.320764	.0081983	.0012115	.0319463	1.078831	.8102367	1.903306
#2	5.146625	.0060770	.0011136	.0329417	1.082731	.7901472	1.898990
#3	5.349663	.0075848	.0014615	.0323590	1.087870	.8063881	1.892037

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3412-01LX5 Acquired: 10/23/2025 18:19:51 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1704134	.0833835	-.004952
Stddev	.0019180	.0015206	.000660
%RSD	1.125505	1.823584	13.32099
#1	.1726275	.0837321	-.005243
#2	.1692628	.0817189	-.004197
#3	.1693498	.0846995	-.005417

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7191.491	100420.4	6185.966	5580.779	7662.968
Stddev	12.909	637.7	19.819	12.071	13.461
%RSD	.1795017	.6350376	.3203879	.2162900	.1756615
#1	7187.803	100256.2	6208.711	5566.861	7656.842
#2	7180.828	101124.1	6176.781	5588.389	7653.659
#3	7205.843	99880.8	6172.406	5587.086	7678.402

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3412-01MS Acquired: 10/23/2025 18:23:55 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6329658**	**1.575114**	**1.596629**	**1.343095**	**.2286032**	**147.7897**
Stddev	.0026379	.005697	.007768	.002287	.0020037	.4161
%RSD	.4167579	.3616603	.4865383	.1702713	.8764728	.2815170
#1	.6355002	1.580263	1.599071	1.345720	.2308817	148.2699
#2	.6302353	1.568995	1.602883	1.341537	.2271164	147.5612
#3	.6331621	1.576084	1.587933	1.342028	.2278115	147.5380

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.175315**	**.1613457**	**.1906745**	**34.62557**	**.4749628**	**.3511125**
Stddev	.004757	.0008094	.0006559	.08848	.0018096	.0004718
%RSD	.4047417	.5016316	.3440125	.2555403	.3810017	.1343828
#1	1.179288	.1610496	.1914088	34.72556	.4766133	.3513469
#2	1.170044	.1607260	.1904684	34.55740	.4752473	.3514213
#3	1.176612	.1622614	.1901464	34.59374	.4730278	.3505694

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7388585**	**282.7124**	**7.694146**	**71.29715**	**.8166434**	**.0459224**
Stddev	.0011164	1.5486	.026631	.19011	.0024505	.0006939
%RSD	.1511022	.5477608	.3461246	.2666427	.3000658	1.511067
#1	.7394891	282.8854	7.722566	71.48396	.8188115	.0451683
#2	.7375694	284.1672	7.669765	71.10391	.8171339	.0465340
#3	.7395168	281.0845	7.690106	71.30359	.8139848	.0460649

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.86097**	**.5551171**	**1.020524**	**31.21205**	**.2566038**	**.2779492**
Stddev	.09665	.0062579	.001069	.22954	.0140344	.0005514
%RSD	.8148687	1.127314	.1047479	.7354115	5.469302	.1983833
#1	11.87705	.5595702	1.019302	31.24628	.2678508	.2785858
#2	11.94857	.5479621	1.021286	31.42254	.2610844	.2776202
#3	11.75729	.5578188	1.020985	30.96731	.2408761	.2776416

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3412-01MS Acquired: 10/23/2025 18:23:55 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6625748	4.491652	3.540618	F 14.89788	.7881516	.5047377
Stddev	.0018061	.016299	.024092	.06732	.0048222	.0030340
%RSD	.2725874	.3628681	.6804430	.4518551	.6118346	.6011006
#1	.6646191	4.510313	3.549786	14.96359	.7933900	.5059860
#2	.6619097	4.480209	3.558781	14.90099	.7871674	.5012786
#3	.6611955	4.484434	3.513289	14.82906	.7838975	.5069483

Elem	Sr4077
Units	ppm
Avg	.1273390
Stddev	.0026736
%RSD	2.099565
#1	.1285836
#2	.1242701
#3	.1291635

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7855.380	110012.5	6906.762	6215.093	6675.162
Stddev	18.985	509.1	37.657	19.330	19.266
%RSD	.2416813	.4627856	.5452199	.3110159	.2886229
#1	7837.148	109722.1	6873.556	6206.975	6652.957
#2	7875.038	109715.0	6947.677	6201.146	6687.440
#3	7853.954	110600.4	6899.054	6237.158	6685.088

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3412-01MSD Acquired: 10/23/2025 18:27:51 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6532043**	**1.702200**	**1.833089**	**1.367813**	**.2515180**	**153.7174**
Stddev	.0033960	.002500	.005183	.002458	.0034331	.3125
%RSD	.5199023	.1468964	.2827548	.1797046	1.364932	.2033014
#1	.6556336	1.704569	1.836838	1.370365	.2554817	153.5089
#2	.6546555	1.702444	1.835255	1.365461	.2494843	153.5666
#3	.6493237	1.699586	1.827174	1.367612	.2495880	154.0768

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.341180**	**.1691409**	**.2027731**	**64.68712**	**.4982591**	**.3804887**
Stddev	.002899	.0010610	.0004533	.11775	.0015425	.0006598
%RSD	.2161475	.6273025	.2235707	.1820244	.3095861	.1734040
#1	1.338960	.1679169	.2028949	64.56209	.4968762	.3805174
#2	1.344460	.1697064	.2031530	64.70339	.4979783	.3811337
#3	1.340122	.1697994	.2022713	64.79589	.4999227	.3798151

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8619823**	**301.4789**	**8.785561**	**71.95878**	**.8682574**	**.0446360**
Stddev	.0014083	1.5877	.021880	.25597	.0014834	.0009332
%RSD	.1633829	.5266290	.2490448	.3557193	.1708459	2.090663
#1	.8603565	303.2494	8.760675	71.85398	.8689366	.0455088
#2	.8628256	300.1818	8.801780	71.77184	.8692796	.0436523
#3	.8627649	301.0055	8.794228	72.25052	.8665560	.0447468

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**11.89300**	**.5875708**	**1.070585**	**30.35095**	**.2631960**	**.2920432**
Stddev	.05253	.0005765	.004538	.10077	.0064487	.0006525
%RSD	.4416672	.0981102	.4238822	.3320039	2.450132	.2234359
#1	11.94915	.5882328	1.075476	30.46117	.2706313	.2917294
#2	11.88479	.5871796	1.069765	30.26356	.2598290	.2916068
#3	11.84507	.5872999	1.066512	30.32812	.2591279	.2927933

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3412-01MSD Acquired: 10/23/2025 18:27:51 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7426615	4.984003	9.478371	F 17.58739	1.171228	.4963591
Stddev	.0022474	.003501	.068410	.07306	.004294	.0013472
%RSD	.3026138	.0702389	.7217464	.4153874	.3666429	.2714216
#1	.7419507	4.980061	9.550933	17.58818	1.175642	.4952975
#2	.7451784	4.985199	9.415054	17.66004	1.170978	.4978747
#3	.7408555	4.986750	9.469127	17.51394	1.167064	.4959052

Elem	Sr4077
Units	ppm
Avg	.2831421
Stddev	.0028413
%RSD	1.003480
#1	.2799673
#2	.2854462
#3	.2840127

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8105.034	112462.8	7090.269	6364.065	6584.541
Stddev	24.116	465.6	29.097	30.970	23.649
%RSD	.2975465	.4139691	.4103849	.4866425	.3591669
#1	8077.956	112081.9	7121.333	6333.899	6558.483
#2	8124.202	112981.8	7085.825	6395.781	6590.496
#3	8112.943	112324.7	7063.650	6362.514	6604.644

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3412-01A Acquired: 10/23/2025 18:31:47 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7027505	1.707303	2.242027	1.568632	.6102198	141.0249
Stddev	.0005594	.032566	.001036	.002921	.0038508	.2244
%RSD	.0795970	1.907478	.0462046	.1862386	.6310551	.1591017
#1	.7031661	1.734775	2.242960	1.567589	.6094340	140.9001
#2	.7029707	1.671328	2.242210	1.566376	.6068224	141.2839
#3	.7021145	1.715805	2.240912	1.571932	.6144029	140.8907

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.233620	.1817874	.2122371	37.42386	.5158213	.3891855
Stddev	.011294	.0006859	.0002050	.08877	.0016467	.0010073
%RSD	.9154990	.3773014	.0965759	.2371941	.3192416	.2588135
#1	1.243669	.1824485	.2121098	37.52339	.5139200	.3891629
#2	1.235794	.1818344	.2121279	37.39527	.5167526	.3902039
#3	1.221397	.1810792	.2124736	37.35291	.5167913	.3881898

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8353366	313.1632	8.318716	69.35644	.8905707	.0477495
Stddev	.0007465	1.4475	.064867	.08389	.0006708	.0010407
%RSD	.0893629	.4622249	.7797688	.1209478	.0753241	2.179578
#1	.8361140	313.5473	8.382144	69.27884	.8911235	.0480185
#2	.8346254	314.3800	8.321504	69.44544	.8907642	.0486293
#3	.8352705	311.5624	8.252500	69.34502	.8898244	.0466006

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.11612	.6074172	1.062205	29.57061	.3020132	.3308592
Stddev	.08849	.0012894	.000669	.14536	.0045658	.0002624
%RSD	.7960363	.2122734	.0629382	.4915683	1.511779	.0793070
#1	11.16639	.6089052	1.062955	29.52004	.2969848	.3306158
#2	11.16803	.6066303	1.061673	29.73450	.3058995	.3311372
#3	11.01395	.6067161	1.061987	29.45729	.3031553	.3308247

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3412-01A Acquired: 10/23/2025 18:31:47 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9174744	5.096286	8.770248	F 16.23675	.8782223	.4913987
Stddev	.0025788	.038660	.043031	.03078	.0009500	.0029443
%RSD	.2810771	.7585846	.4906519	.1895757	.1081710	.5991736
#1	.9153886	5.136397	8.793260	16.26978	.8790184	.4946749
#2	.9203577	5.093199	8.720603	16.23161	.8771707	.4905470
#3	.9166767	5.059262	8.796880	16.20887	.8784778	.4889740

Elem	Sr4077
Units	ppm
Avg	.1257381
Stddev	.0025688
%RSD	2.042992
#1	.1286166
#2	.1249191
#3	.1236787

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7909.957	110239.9	6933.284	6124.843	6672.887
Stddev	10.152	1051.7	39.638	30.445	12.481
%RSD	.1283504	.9540557	.5717036	.4970740	.1870342
#1	7898.541	111334.5	6966.009	6159.931	6662.272
#2	7913.355	109237.1	6889.209	6105.412	6669.755
#3	7917.974	110148.0	6944.633	6109.188	6686.636

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170224BL Acquired: 10/23/2025 18:35:43 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0008471	.0005005	.0002921	.0013686	.0016278	-.013859	.0062810
Stddev	.0026494	.0017659	.0010940	.0015171	.0020770	.004597	.0020779
%RSD	312.7459	352.8342	374.5673	110.8448	127.5987	33.17119	33.08242
#1	.0021200	.0007885	-.000830	.0022086	.0038734	-.008844	.0038864
#2	.0026199	.0021046	.000350	-.000383	-.000224	-.017874	.0076087
#3	-.002198	-.001392	.001356	.002280	.001234	-.014858	.0073479

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000633	-.000092	-.005404	-.000064	-.000034	-.000248	.0012182
Stddev	.0000292	.000030	.011275	.000135	.000071	.000383	.0061085
%RSD	46.21804	32.53098	208.6312	209.7729	207.2846	154.7681	501.4446
#1	.0000969	-.000110	-.018413	.000083	-.000114	-.000183	.0029753
#2	.0000442	-.000058	.001544	-.000095	.000024	.000099	-.005576
#3	.0000487	-.000110	.000656	-.000181	-.000013	-.000659	.006256

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000452	-.024436	.0001275	-.000064	.2691869	-.001872	-.000071
Stddev	.000632	.022065	.0003442	.000306	.0435132	.000429	.000021
%RSD	139.8421	90.29635	269.9312	477.7523	16.16468	22.93947	29.95185
#1	.000148	-.041671	.0000350	.000227	.2194509	-.001818	-.000052
#2	-.000391	-.032070	.0005084	-.000382	.2878790	-.002326	-.000094
#3	-.001112	.000432	-.000161	-.000037	.3002309	-.001472	-.000067

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3576516	-.008319	.0000676	-.004803	-.003286	.0193920	-.003246
Stddev	.0837574	.000824	.0002118	.000183	.001216	.0025367	.001362
%RSD	23.41872	9.905778	313.1784	3.799691	37.02162	13.08109	41.94435
#1	.2992748	-.007382	.0001041	-.004659	-.004028	.0175828	-.003498
#2	.3200612	-.008643	-.000160	-.005008	-.001882	.0222916	-.001776
#3	.4536189	-.008931	.000259	-.004743	-.003948	.0183017	-.004464

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170224BL Acquired: 10/23/2025 18:35:43 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0073908	.0050461	.0000119
Stddev	.0028554	.0013935	.0001699
%RSD	38.63499	27.61597	1429.135
#1	.0106658	.0044708	.0001856
#2	.0054230	.0040323	.0000041
#3	.0060836	.0066351	-.000154

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6895.003	95935.72	5925.036	5216.027	8344.983
Stddev	8.470	144.76	58.180	18.280	18.162
%RSD	.1228430	.1508911	.9819401	.3504503	.2176455
#1	6892.781	96062.65	5982.040	5227.209	8332.567
#2	6887.866	95778.06	5927.321	5225.939	8336.553
#3	6904.363	95966.44	5865.747	5194.932	8365.829

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170224BS Acquired: 10/23/2025 18:39:57 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7188654**	**1.646307**	**.8792065**	**1.815714**	**.7239071**	**1.728760**
Stddev	.0020137	.056509	.0012152	.004483	.0005973	.023043
%RSD	.2801284	3.432468	.1382151	.2468842	.0825114	1.332901
#1	.7211777	1.584974	.8787746	1.814542	.7239946	1.749815
#2	.7174966	1.696261	.8782662	1.820667	.7232708	1.704144
#3	.7179220	1.657685	.8805786	1.811935	.7244557	1.732320

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1740121**	**.1804073**	**.1757017**	**.9246349**	**.3471271**	**.1766742**
Stddev	.0024076	.0016709	.0001121	.0102218	.0028109	.0001442
%RSD	1.383600	.9261912	.0638026	1.105495	.8097606	.0816081
#1	.1760139	.1812960	.1757847	.9225805	.3481827	.1767947
#2	.1746821	.1814461	.1757462	.9357279	.3439412	.1765145
#3	.1713405	.1784799	.1755742	.9155964	.3492574	.1767133

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2821979**	**2.486866**	**.1798367**	**1.849629**	**.4447459**	**.0656656**
Stddev	.0006073	.043268	.0011783	.016095	.0008024	.0004385
%RSD	.2152212	1.739859	.6552029	.8701811	.1804152	.6677282
#1	.2828959	2.524144	.1810168	1.840178	.4452084	.0661561
#2	.2817901	2.439420	.1786602	1.868213	.4438194	.0653116
#3	.2819077	2.497035	.1798333	1.840497	.4452100	.0655292

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.501905**	**.2613379**	**.1838395**	**8.411973**	**.2834373**	**.3624318**
Stddev	.065188	.0010858	.0012991	.171034	.0031690	.0002386
%RSD	2.605523	.4154708	.7066645	2.033225	1.118068	.0658276
#1	2.492908	.2621863	.1841329	8.453786	.2840504	.3626014
#2	2.441683	.2617131	.1824188	8.223909	.2862550	.3625349
#3	2.571124	.2601143	.1849669	8.558223	.2800066	.3621589

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170224BS Acquired: 10/23/2025 18:39:57 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6214608	.1717013	F .7386581	5.249057	F .0043452	.1710771
Stddev	.0003549	.0028813	.0236477	.017384	.0011807	.0030866
%RSD	.0571011	1.678103	3.201438	.3311751	27.17307	1.804237
#1	.6218665	.1748799	.7563744	5.237714	.0056599	.1732439
#2	.6212080	.1709631	.7118051	5.269071	.0033752	.1724445
#3	.6213078	.1692609	.7477947	5.240388	.0040004	.1675430

Elem	Sr4077
Units	ppm
Avg	.1698127
Stddev	.0020430
%RSD	1.203109
#1	.1721124
#2	.1682072
#3	.1691186

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7309.947	102950.7	6199.997	5704.472	8432.942
Stddev	12.400	660.1	46.448	43.017	13.483
%RSD	.1696283	.6411353	.7491660	.7540865	.1598794
#1	7300.565	102774.6	6175.593	5668.287	8430.294
#2	7324.005	103680.9	6170.838	5752.034	8447.552
#3	7305.271	102396.6	6253.561	5693.097	8420.980

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3427-01 Acquired: 10/23/2025 18:43:58 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0494427	.0039383	.4629460	-.006220	-.024383	146.1930	1.284153
Stddev	.0022810	.0040339	.0016786	.002378	.002148	.2825	.007188
%RSD	4.613328	102.4285	.3626001	38.22397	8.810646	.1932259	.5597213
#1	.0484753	.0079726	.4641374	-.008927	-.025655	146.3466	1.292338
#2	.0520480	-.000095	.4636744	-.005261	-.025591	146.3653	1.281254
#3	.0478049	.003937	.4610262	-.004472	-.021903	145.8669	1.278868

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0214198	.0059455	60.10161	.2385552	.1910605	1.229314	321.8059
Stddev	.0000887	.0000951	.12974	.0005689	.0004050	.000913	1.0979
%RSD	.4141206	1.600050	.2158696	.2384805	.2119650	.0742604	.3411689
#1	.0213510	.0058730	60.10299	.2387588	.1906783	1.228264	322.3552
#2	.0215199	.0060532	60.23066	.2379126	.1914849	1.229759	320.5417
#3	.0213885	.0059104	59.97119	.2389944	.1910182	1.229919	322.5207

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	19.13620	84.24989	.4150135	-.010117	24.92771	.3870286	1.149469
Stddev	.04093	.24530	.0010011	.000309	.16910	.0033125	.001875
%RSD	.2138714	.2911539	.2412287	3.052180	.6783622	.8558816	.1631103
#1	19.18220	83.96810	.4141395	-.010468	25.08651	.3884951	1.151369
#2	19.12258	84.41559	.4147951	-.009887	24.74992	.3893548	1.149416
#3	19.10382	84.36599	.4161058	-.009996	24.94670	.3832360	1.147620

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	29.12247	.1200332	.0048672	.0705889	4.631633	6.458641	8.546276
Stddev	.19675	.0055346	.0001888	.0002221	.014998	.031874	.026353
%RSD	.6755818	4.610921	3.878086	.3146354	.3238121	.4935086	.3083536
#1	29.30952	.1202712	.0048519	.0708423	4.641997	6.495329	8.517220
#2	28.91729	.1143833	.0046865	.0704282	4.614436	6.437762	8.568633
#3	29.14061	.1254449	.0050631	.0704962	4.638468	6.442831	8.552974

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3427-01 Acquired: 10/23/2025 18:43:58 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.103340	.4512591	-.032762
Stddev	.009550	.0007267	.000887
%RSD	.8655191	.1610300	2.706643
#1	1.097578	.4505281	-.032286
#2	1.114364	.4512679	-.032214
#3	1.098079	.4519813	-.033785

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8062.095	111099.4	7077.176	6268.235	6717.353
Stddev	13.063	256.6	24.040	14.084	12.473
%RSD	.1620287	.2309478	.3396902	.2246871	.1856806
#1	8077.177	111378.6	7099.569	6277.590	6730.648
#2	8054.722	111045.7	7051.772	6275.078	6705.908
#3	8054.385	110873.9	7080.188	6252.037	6715.504

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3431-01 Acquired: 10/23/2025 18:47:57 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0553223	-.009064	.2423884	-.002596	-.019539	133.7984
Stddev	.0019603	.001084	.0022510	.001129	.001822	.0998
%RSD	3.543460	11.95729	.9286667	43.48205	9.326893	.0745987
#1	.0544852	-.010021	.2443015	-.001760	-.019758	133.6917
#2	.0575622	-.009285	.2429555	-.003880	-.017617	133.8895
#3	.0539196	-.007887	.2399080	-.002149	-.021242	133.8139

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5249194	.0152435	.0055880	49.32478	.1982816	.1513171
Stddev	.0014596	.0000880	.0002107	.07243	.0007628	.0001264
%RSD	.2780544	.5771138	3.771327	.1468458	.3847193	.0835013
#1	.5263395	.0151552	.0053663	49.30343	.1974104	.1513706
#2	.5249953	.0152441	.0056121	49.40548	.1988294	.1511727
#3	.5234233	.0153312	.0057857	49.26542	.1986051	.1514078

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4365574	244.9257	3.718243	63.56460	.2475149	-.011028
Stddev	.0009702	1.0990	.009849	.12839	.0003181	.000538
%RSD	.2222363	.4486893	.2648724	.2019778	.1285005	4.878026
#1	.4362053	245.7553	3.726518	63.41637	.2477386	-.010509
#2	.4376545	245.3426	3.720860	63.63676	.2471508	-.010993
#3	.4358125	243.6794	3.707350	63.64067	.2476554	-.011583

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.490952	.4939602	.5323167	17.06591	.0200599	.0143081
Stddev	.008498	.0020418	.0021272	.14728	.0070424	.0004142
%RSD	.1892165	.4133433	.3996170	.8629824	35.10680	2.895051
#1	4.498365	.4917280	.5335791	17.20278	.0275577	.0144928
#2	4.492813	.4957334	.5298607	17.08487	.0190371	.0145978
#3	4.481678	.4944193	.5335103	16.91007	.0135848	.0138336

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3431-01 Acquired: 10/23/2025 18:47:57 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0069388	6.265531	5.981393	F 11.50224	7.147995	.2411354
Stddev	.0004107	.025959	.059295	.06162	.058233	.0022936
%RSD	5.919203	.4143095	.9913191	.5357083	.8146806	.9511771
#1	.0074099	6.272247	5.993963	11.53767	7.146631	.2387124
#2	.0066558	6.287472	6.033395	11.53796	7.206898	.2414206
#3	.0067506	6.236874	5.916821	11.43109	7.090456	.2432730

Elem	Sr4077
Units	ppm
Avg	-.097785
Stddev	.000602
%RSD	.6157434
#1	-.098223
#2	-.098035
#3	-.097099

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8742.690	122057.4	7756.279	6932.118	7018.860
Stddev	21.794	552.5	44.986	10.184	17.423
%RSD	.2492772	.4526879	.5799945	.1469035	.2482246
#1	8739.857	122563.4	7806.916	6928.371	7018.957
#2	8722.452	121467.9	7720.926	6943.644	7001.388
#3	8765.762	122140.9	7740.997	6924.339	7036.233

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3431-01DUP Acquired: 10/23/2025 18:51:56 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0476860**	**-.006242**	**.2643250**	**-.004245**	**-.017612**	**122.8559**
Stddev	.0020475	.000205	.0015360	.000455	.001271	.1241
%RSD	4.293751	3.289696	.5811014	10.72508	7.219441	.1010201
#1	.0460964	-.006042	.2642702	-.004767	-.019018	122.7227
#2	.0499965	-.006231	.2628172	-.004036	-.016544	122.9682
#3	.0469652	-.006452	.2658877	-.003931	-.017273	122.8768

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4875883**	**.0143450**	**.0046686**	**44.32639**	**.1910529**	**.1364625**
Stddev	.0011797	.0000573	.0002166	.05351	.0002230	.0005573
%RSD	.2419400	.3995300	4.639097	.1207141	.1167124	.4084140
#1	.4876196	.0143101	.0045264	44.26915	.1908194	.1370176
#2	.4863933	.0144112	.0049179	44.33488	.1912636	.1359030
#3	.4887520	.0143138	.0045616	44.37515	.1910757	.1364670

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4455237**	**229.4777**	**3.508110**	**53.27128**	**.2207704**	**-.010777**
Stddev	.0014838	2.1272	.010358	.09683	.0003275	.000877
%RSD	.3330421	.9269651	.2952674	.1817683	.1483413	8.134074
#1	.4441487	230.5959	3.514629	53.17404	.2205968	-.010612
#2	.4470964	227.0246	3.496166	53.27210	.2211481	-.011724
#3	.4453259	230.8125	3.513536	53.36769	.2205662	-.009995

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**3.869198**	**.4583288**	**.5012595**	**15.21759**	**-.014147**	**.0243216**
Stddev	.037787	.0043026	.0014501	.12334	.009967	.0003821
%RSD	.9766098	.9387492	.2892867	.8105336	70.45317	1.571230
#1	3.878159	.4592546	.4998229	15.30860	-.002981	.0239779
#2	3.827736	.4536386	.5012328	15.07721	-.022144	.0242537
#3	3.901699	.4620930	.5027227	15.26696	-.017316	.0247331

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3431-01DUP Acquired: 10/23/2025 18:51:56 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0059466	6.019087	6.426590	F 10.65637	6.174701	.1615393
Stddev	.0004248	.005950	.064890	.04646	.044428	.0001671
%RSD	7.143153	.0988473	1.009706	.4360281	.7195127	.1034443
#1	.0056321	6.016097	6.477791	10.71001	6.225491	.1616565
#2	.0064298	6.015226	6.353614	10.63090	6.143054	.1613479
#3	.0057779	6.025939	6.448366	10.62822	6.155559	.1616134

Elem	Sr4077
Units	ppm
Avg	-.101804
Stddev	.001559
%RSD	1.530885
#1	-.102556
#2	-.100013
#3	-.102845

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8818.714	120713.3	7741.766	6750.137	7345.651
Stddev	28.789	387.3	47.710	33.308	20.231
%RSD	.3264572	.3208753	.6162712	.4934349	.2754131
#1	8843.052	120723.9	7787.972	6769.446	7360.081
#2	8826.157	121095.2	7692.682	6769.288	7354.345
#3	8786.935	120320.7	7744.644	6711.677	7322.526

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q343101LX5 Acquired: 10/23/2025 18:55:56 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0154398	.0029689	.0539951	-.002082	-.005072	37.34748	.1469954
Stddev	.0010294	.0013484	.0008651	.002548	.001789	.13091	.0017770
%RSD	6.667341	45.41783	1.602157	122.3858	35.27504	.3505196	1.208899
#1	.0160837	.0016145	.0546859	-.004952	-.004940	37.24407	.1467375
#2	.0159831	.0029808	.0542744	-.001205	-.006924	37.30369	.1453614
#3	.0142525	.0043112	.0530248	-.000088	-.003353	37.49467	.1488873

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0043795	-.000045	14.03147	.0572668	.0327305	.1259563	67.21877
Stddev	.0000436	.000110	.07315	.0006782	.0005471	.0026026	.44458
%RSD	.9958157	245.5157	.5213587	1.184305	1.671490	2.066281	.6613854
#1	.0043644	.000079	13.94881	.0580488	.0332124	.1285987	66.70689
#2	.0043455	-.000132	14.05772	.0569109	.0328432	.1258749	67.44100
#3	.0044287	-.000082	14.08788	.0568405	.0321358	.1233954	67.50841

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.050353	18.16742	.0549348	-.002575	1.286335	.1369825	.1509676
Stddev	.003591	.04933	.0010507	.000115	.020200	.0033881	.0009121
%RSD	.3418398	.2715502	1.912624	4.477941	1.570316	2.473381	.6041659
#1	1.046305	18.14415	.0559397	-.002464	1.267641	.1342332	.1519329
#2	1.051603	18.22408	.0550210	-.002694	1.307762	.1359466	.1501201
#3	1.053152	18.13402	.0538437	-.002569	1.283602	.1407676	.1508500

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.707631	-.017325	.0038509	-.002227	1.749619	1.802483	2.463419
Stddev	.064845	.002012	.0000664	.000307	.007462	.051813	.048534
%RSD	1.377438	11.61409	1.725361	13.76991	.4264744	2.874546	1.970188
#1	4.684320	-.019536	.0039273	-.001960	1.746195	1.789835	2.516048
#2	4.657664	-.016837	.0038186	-.002159	1.744483	1.758165	2.453784
#3	4.780908	-.015601	.0038067	-.002562	1.758178	1.859450	2.420426

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q343101LX5 Acquired: 10/23/2025 18:55:56 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.519297	.0663905	-.026446
Stddev	.036763	.0037610	.000355
%RSD	2.419742	5.664913	1.340751
#1	1.560050	.0646992	-.026069
#2	1.509210	.0637721	-.026773
#3	1.488630	.0707002	-.026496

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7544.974	104815.9	6482.639	5790.820	7869.683
Stddev	12.572	178.8	22.967	27.356	9.847
%RSD	.1666302	.1705826	.3542790	.4724060	.1251302
#1	7556.601	104793.4	6460.194	5769.916	7864.668
#2	7531.632	105004.8	6506.094	5821.781	7863.353
#3	7546.689	104649.3	6481.628	5780.762	7881.028

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCV07 Acquired: 10/23/2025 18:59:59 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.034453**	**4.525986**	**5.057139**	**5.087314**	**4.900236**	**9.836367**	**9.588910**
Stddev	.021798	.084038	.018766	.035862	.016043	.027931	.060454
%RSD	.4329692	1.856787	.3710740	.7049290	.3274012	.2839530	.6304525
#1	5.059553	4.611785	5.078502	5.128562	4.917369	9.868308	9.657586
#2	5.020282	4.522345	5.043317	5.069859	4.885567	9.816530	9.565403
#3	5.023525	4.443828	5.049599	5.063522	4.897772	9.824264	9.543740

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2441523**	**2.531608**	**24.63102**	**.9521944**	**2.473231**	**1.245133**	**4.708597**
Stddev	.0031453	.011218	.09590	.0030141	.008607	.002703	.033507
%RSD	1.288237	.4431147	.3893516	.3165459	.3480180	.2170955	.7116225
#1	.2477815	2.544306	24.74123	.9556728	2.483109	1.248250	4.676957
#2	.2424582	2.527480	24.56653	.9503517	2.467338	1.243725	4.743702
#3	.2422173	2.523039	24.58531	.9505587	2.469247	1.243425	4.705133

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.430438**	**25.09658**	**2.492447**	**1.275967**	**22.67231**	**2.456503**	**2.552095**
Stddev	.020340	.08958	.009427	.005225	.10986	.005930	.008431
%RSD	.8368851	.3569478	.3782040	.4095081	.4845476	.2413903	.3303551
#1	2.453150	25.19790	2.503330	1.281632	22.56783	2.461298	2.561071
#2	2.424264	25.02787	2.486827	1.274934	22.78685	2.449872	2.544343
#3	2.413901	25.06398	2.487185	1.271336	22.66224	2.458337	2.550871

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**23.78692**	**5.461774**	**4.884050**	**5.021856**	**4.820329**	**4.749931**	**5.193050**
Stddev	.17205	.073584	.027272	.025977	.018185	.033472	.047337
%RSD	.7232876	1.347249	.5583937	.5172870	.3772504	.7046805	.9115386
#1	23.61272	5.546448	4.914416	5.050238	4.840178	4.711282	5.245943
#2	23.95673	5.425536	4.876090	4.999258	4.816337	4.769079	5.178543
#3	23.79132	5.413337	4.861643	5.016073	4.804472	4.769433	5.154665

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCV07 Acquired: 10/23/2025 18:59:59 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**5.010746**	**4.645151**	**4.781785**
Stddev	.042489	.028749	.070814
%RSD	.8479592	.6189130	1.480902
#1	5.059803	4.676784	4.862472
#2	4.985580	4.638054	4.729966
#3	4.986856	4.620615	4.752916

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6955.721**	**95689.41**	**6032.724**	**5254.927**	**7515.347**
Stddev	20.021	142.85	58.429	17.749	19.230
%RSD	.2878288	.1492892	.9685311	.3377577	.2558768
#1	6936.369	95852.67	5965.793	5250.281	7493.625
#2	6954.446	95587.36	6073.551	5274.537	7522.219
#3	6976.349	95628.21	6058.827	5239.964	7530.197

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCB07 Acquired: 10/23/2025 19:04:01 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0007498**	**.0023023**	**.0007134**	**-.000340**	**-.000805**	**-.001491**	**.0023727**
Stddev	.0019765	.0003065	.0001963	.003091	.000860	.005394	.0022606
%RSD	263.6056	13.31260	27.50974	907.6942	106.8707	361.7215	95.27711
#1	.0019429	.0019718	.0009033	-.003578	.000028	-.007508	.0049816
#2	.0018382	.0025771	.0005114	-.000022	-.000752	.002913	.0011414
#3	-.001532	.0023579	.0007254	.002579	-.001691	.000121	.0009950

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0001244**	**-.000028**	**.0012932**	**.0001627**	**.0000806**	**-.000132**	**-.002137**
Stddev	.0000447	.000039	.0113135	.0003569	.0000938	.000354	.002802
%RSD	35.93721	141.1541	874.8387	219.4445	116.3551	267.0921	131.1295
#1	.0000953	-.000067	-.005007	.0005412	.0001883	.000221	-.000589
#2	.0001021	-.000029	-.005468	.0001146	.0000172	-.000133	-.000450
#3	.0001759	.000012	.014354	-.000168	.0000363	-.000486	-.005371

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000057**	**-.002719**	**.0001723**	**-.000345**	**.1506637**	**-.002591**	**-.000201**
Stddev	.000286	.003124	.0000901	.000424	.0197259	.002882	.000080
%RSD	505.1171	114.9027	52.27172	122.7410	13.09269	111.2292	39.71342
#1	-.000183	-.002723	.0002688	.000131	.1327523	-.004574	-.000109
#2	-.000258	.000407	.0000904	-.000681	.1474334	.000715	-.000254
#3	.000271	-.005840	.0001578	-.000485	.1718054	-.003913	-.000240

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2741423**	**-.001580**	**.0004103**	**-.004827**	**-.000606**	**.0113049**	**-.002736**
Stddev	.0428324	.001119	.0002436	.000504	.000549	.0104939	.001147
%RSD	15.62415	70.83499	59.35647	10.43409	90.50725	92.82629	41.92090
#1	.2947967	-.000497	.0005681	-.004513	-.001200	.0047262	-.003762
#2	.2248965	-.002732	.0005331	-.004559	-.000502	.0057817	-.001498
#3	.3027338	-.001512	.0001298	-.005407	-.000117	.0234070	-.002949

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCB07 Acquired: 10/23/2025 19:04:01 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0074723	.0002140	.0001219
Stddev	.0025945	.0005913	.0000684
%RSD	34.72215	276.2820	56.07625
#1	.0062782	-.000350	.0001205
#2	.0104489	.000163	.0001910
#3	.0056898	.000829	.0000543

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7005.987	98367.14	5887.992	5476.326	8348.157
Stddev	33.123	208.80	10.343	15.355	33.728
%RSD	.4727796	.2122696	.1756605	.2803965	.4040206
#1	7042.910	98214.22	5890.656	5470.194	8385.739
#2	6978.887	98282.17	5876.578	5464.984	8320.517
#3	6996.163	98605.03	5896.743	5493.800	8338.216

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3431-01MS Acquired: 10/23/2025 19:08:16 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6409867	1.626220	1.147337	1.445558	.2722755	131.5249
Stddev	.0038980	.018512	.002265	.005269	.0020933	.3599
%RSD	.6081206	1.138362	.1973733	.3645098	.7687981	.2736385
#1	.6454595	1.643394	1.145016	1.451008	.2702814	131.1157
#2	.6391860	1.606610	1.147454	1.440490	.2744555	131.6671
#3	.6383146	1.628655	1.149540	1.445178	.2720895	131.7921

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6368442	.1601167	.1974635	44.31983	.5073239	.3357467
Stddev	.0033385	.0004340	.0000504	.08912	.0015727	.0003944
%RSD	.5242180	.2710585	.0255112	.2010800	.3099884	.1174685
#1	.6384032	.1599055	.1974054	44.23428	.5084985	.3358851
#2	.6330115	.1606158	.1974959	44.31308	.5055372	.3353018
#3	.6391180	.1598286	.1974891	44.41213	.5079359	.3360533

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6241250	237.3749	3.596396	55.08695	.7033860	.0457316
Stddev	.0004414	1.4365	.010046	.21106	.0009018	.0002871
%RSD	.0707256	.6051507	.2793216	.3831425	.1282109	.6277741
#1	.6244917	237.9338	3.601469	54.84794	.7031742	.0456838
#2	.6242482	235.7429	3.584826	55.24771	.7026090	.0454713
#3	.6236350	238.4478	3.602894	55.16518	.7043749	.0460395

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.453861	.7144153	.6380425	23.06549	.2006864	.3010522
Stddev	.064638	.0022369	.0020627	.14188	.0056253	.0008922
%RSD	1.001543	.3131111	.3232830	.6151372	2.803014	.2963506
#1	6.488976	.7166125	.6358527	23.11760	.2048735	.3014039
#2	6.379266	.7144928	.6399487	22.90492	.1942923	.3000378
#3	6.493342	.7121407	.6383263	23.17395	.2028936	.3017149

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3431-01MS Acquired: 10/23/2025 19:08:16 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6622933	6.956487	8.466317	F 16.68088	5.364212	.2896000
Stddev	.0014074	.016971	.145032	.03537	.018532	.0018380
%RSD	.2124990	.2439611	1.713046	.2120139	.3454690	.6346579
#1	.6619553	6.947199	8.326978	16.71964	5.375372	.2909484
#2	.6610858	6.946188	8.455533	16.65035	5.342820	.2875064
#3	.6638389	6.976075	8.616440	16.67266	5.374444	.2903451

Elem	Sr4077
Units	ppm
Avg	.0369371
Stddev	.0006578
%RSD	1.780856
#1	.0375623
#2	.0369980
#3	.0362509

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8606.605	120733.9	7678.822	6862.815	7128.647
Stddev	6.851	611.0	16.954	26.113	6.286
%RSD	.0796050	.5060464	.2207909	.3805046	.0881800
#1	8606.790	120273.3	7669.989	6832.831	7129.966
#2	8599.663	121426.9	7698.369	6875.045	7121.806
#3	8613.362	120501.3	7668.108	6880.569	7134.168

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3431-01MSD Acquired: 10/23/2025 19:12:11 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6482054**	**1.633653**	**1.193884**	**1.448280**	**.2628057**	**140.8247**
Stddev	.0017844	.063915	.001688	.003326	.0035111	.2746
%RSD	.2752861	3.912400	.1414289	.2296730	1.335998	.1949936
#1	.6467114	1.561810	1.194848	1.444876	.2613180	141.0008
#2	.6501813	1.684206	1.194870	1.451523	.2668157	140.5083
#3	.6477237	1.654943	1.191935	1.448440	.2602835	140.9650

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6724364**	**.1656256**	**.2023057**	**47.46389**	**.5135692**	**.3514030**
Stddev	.0026756	.0009523	.0002225	.06686	.0002673	.0005531
%RSD	.3978896	.5749947	.1099684	.1408562	.0520432	.1574053
#1	.6705667	.1664243	.2020611	47.51395	.5138629	.3519733
#2	.6755012	.1658808	.2024960	47.48975	.5133403	.3508689
#3	.6712411	.1645716	.2023599	47.38797	.5135045	.3513668

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6612235**	**260.2091**	**3.914604**	**57.73460**	**.7379924**	**.0466646**
Stddev	.0000840	1.4248	.017581	.13602	.0003746	.0009362
%RSD	.0127016	.5475555	.4491231	.2355917	.0507547	2.006277
#1	.6611392	258.5639	3.914026	57.86065	.7376220	.0456377
#2	.6612242	261.0310	3.932467	57.59043	.7379842	.0468855
#3	.6613072	261.0324	3.897319	57.75271	.7383710	.0474706

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.806060**	**.7368269**	**.6990504**	**24.23334**	**.1993523**	**.3058984**
Stddev	.056068	.0060282	.0008574	.19408	.0041318	.0006715
%RSD	.8238018	.8181269	.1226448	.8008804	2.072633	.2195174
#1	6.741476	.7429413	.6982580	24.05741	.1946276	.3051581
#2	6.834434	.7366507	.6999605	24.20109	.2022893	.3060686
#3	6.842270	.7308888	.6989327	24.44153	.2011399	.3064683

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3431-01MSD Acquired: 10/23/2025 19:12:11 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6730412	7.441310	8.216723	F 17.51529	6.347440	.2959155
Stddev	.0009852	.020998	.228377	.08530	.047757	.0022774
%RSD	.1463798	.2821755	2.779412	.4870168	.7523887	.7696149
#1	.6719853	7.435396	8.144303	17.42948	6.292348	.2935361
#2	.6739358	7.464630	8.033337	17.60007	6.377086	.2980750
#3	.6732025	7.423903	8.472529	17.51632	6.372886	.2961355

Elem	Sr4077
Units	ppm
Avg	.0267076
Stddev	.0013460
%RSD	5.039784
#1	.0275231
#2	.0274456
#3	.0251540

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8504.566	115210.2	7428.209	6511.184	6908.344
Stddev	8.642	864.3	20.525	16.210	7.022
%RSD	.1016161	.7502160	.2763084	.2489578	.1016424
#1	8498.501	115753.2	7421.461	6523.390	6902.669
#2	8500.736	115663.8	7451.258	6517.370	6906.167
#3	8514.461	114213.5	7411.907	6492.792	6916.197

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3431-01A Acquired: 10/23/2025 19:16:04 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6174374**	**1.544229**	**1.141127**	**1.385858**	**.5455577**	**132.6086**
Stddev	.0016899	.079900	.003551	.005937	.0029464	.2581
%RSD	.2736994	5.174128	.3111488	.4283971	.5400653	.1946366
#1	.6154940	1.482760	1.144983	1.385541	.5442216	132.8913
#2	.6185618	1.515379	1.137992	1.380087	.5489354	132.5492
#3	.6182563	1.634548	1.140408	1.391948	.5435161	132.3854

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6487016**	**.1542850**	**.1926019**	**49.02162**	**.4661816**	**.3324366**
Stddev	.0021008	.0006380	.0001363	.10346	.0007005	.0004157
%RSD	.3238471	.4135135	.0707467	.2110414	.1502696	.1250388
#1	.6494792	.1546627	.1924451	49.11944	.4655241	.3323700
#2	.6463229	.1535484	.1926701	48.91332	.4669184	.3328816
#3	.6503028	.1546440	.1926907	49.03209	.4661023	.3320583

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6298013**	**241.6711**	**3.749028**	**64.34506**	**.7096724**	**.0429392**
Stddev	.0007556	.2011	.015549	.10474	.0015669	.0006197
%RSD	.1199746	.0832087	.4147495	.1627815	.2207952	1.443293
#1	.6299585	241.8061	3.755970	64.45726	.7095620	.0436404
#2	.6304660	241.7672	3.731217	64.24985	.7112916	.0424648
#3	.6289795	241.4400	3.759897	64.32807	.7081636	.0427125

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**6.329889**	**.6977931**	**.6655616**	**23.78281**	**.2352181**	**.3019144**
Stddev	.032238	.0019330	.0012862	.02701	.0020003	.0002189
%RSD	.5093048	.2770098	.1932499	.1135495	.8503861	.0725064
#1	6.298751	.7000250	.6670405	23.80382	.2330296	.3018904
#2	6.327792	.6966626	.6647045	23.79227	.2369518	.3017085
#3	6.363125	.6966916	.6649397	23.75235	.2356728	.3021443

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3431-01A Acquired: 10/23/2025 19:16:04 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6728888	6.254199	6.482253	F 16.27516	6.794304	.3786284
Stddev	.0020077	.012618	.033633	.10354	.067649	.0008826
%RSD	.2983756	.2017480	.5188465	.6362019	.9956778	.2331125
#1	.6722721	6.255662	6.520946	16.24438	6.772396	.3796228
#2	.6712617	6.240914	6.465795	16.19050	6.740323	.3779376
#3	.6751325	6.266021	6.460019	16.39060	6.870192	.3783249

Elem	Sr4077
Units	ppm
Avg	.0395870
Stddev	.0010952
%RSD	2.766607
#1	.0394398
#2	.0385728
#3	.0407484

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	9093.311	125385.2	8018.491	7012.014	7356.684
Stddev	20.843	302.8	33.981	28.156	18.459
%RSD	.2292141	.2414598	.4237779	.4015365	.2509190
#1	9114.363	125111.3	7988.035	6979.840	7374.635
#2	9072.684	125334.1	8055.143	7024.054	7337.756
#3	9092.887	125710.3	8012.294	7032.148	7357.661

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3439-01 Acquired: 10/23/2025 19:19:58 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0473520	.0011770	.1664269	-.003093	-.021845	154.8630	.7427139
Stddev	.0019401	.0027058	.0005682	.001813	.003573	.3230	.0038814
%RSD	4.097205	229.8886	.3414185	58.60679	16.35465	.2085748	.5226011
#1	.0451847	-.001884	.1658104	-.004152	-.019495	155.2328	.7467000
#2	.0479450	.002164	.1665407	-.004128	-.025956	154.6364	.7389463
#3	.0489265	.003251	.1669296	-.001000	-.020084	154.7196	.7424955

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0193902	.0045804	9.569292	.1969743	.1494018	.3477819	268.4905
Stddev	.0001800	.0002701	.019105	.0007917	.0001576	.0020531	1.4955
%RSD	.9284408	5.896962	.1996520	.4019371	.1055003	.5903299	.5569975
#1	.0195893	.0045925	9.590068	.1976828	.1492222	.3478150	268.4524
#2	.0193425	.0048442	9.552479	.1971204	.1495174	.3498182	267.0144
#3	.0192388	.0043044	9.565329	.1961198	.1494657	.3457125	270.0047

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	7.339768	58.95186	.3232398	-.008240	11.53605	.3174773	.6456891
Stddev	.034251	.17243	.0009419	.000232	.04252	.0012672	.0013845
%RSD	.4666480	.2924862	.2913885	2.814477	.3686250	.3991334	.2144160
#1	7.373893	59.14691	.3221896	-.008410	11.52389	.3177703	.6468487
#2	7.305393	58.88893	.3240098	-.008334	11.50093	.3160893	.6460623
#3	7.340018	58.81973	.3235200	-.007976	11.58333	.3185723	.6441562

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	20.61939	.0605261	.0054666	.0069213	4.130669	8.496416	4.276925
Stddev	.08295	.0150968	.0000842	.0009581	.011414	.173111	.025360
%RSD	.4023064	24.94257	1.539501	13.84267	.2763144	2.037462	.5929457
#1	20.57988	.0522866	.0053970	.0058733	4.138214	8.385848	4.277820
#2	20.56357	.0513420	.0055601	.0077522	4.117539	8.695917	4.301825
#3	20.71471	.0779498	.0054428	.0071385	4.136255	8.407483	4.251129

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3439-01 Acquired: 10/23/2025 19:19:58 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1471310	.2973171	-.161297
Stddev	.0081862	.0008142	.001526
%RSD	5.563870	.2738658	.9459139
#1	.1474296	.2982047	-.160755
#2	.1551638	.2971422	-.160116
#3	.1387996	.2966046	-.163020

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8452.029	116434.2	7506.246	6518.446	7122.253
Stddev	9.780	149.8	29.817	40.657	16.317
%RSD	.1157114	.1286694	.3972265	.6237294	.2291017
#1	8454.610	116509.0	7473.380	6547.513	7133.538
#2	8441.217	116531.9	7513.794	6535.840	7103.544
#3	8460.259	116261.7	7531.563	6471.985	7129.677

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3439-05 Acquired: 10/23/2025 19:23:59 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0455222	-.002143	.1501474	-.005326	-.021291	146.4476	.7661604
Stddev	.0018306	.001929	.0006296	.001820	.001111	.0387	.0055419
%RSD	4.021269	90.00573	.4193409	34.16740	5.218787	.0264317	.7233400
#1	.0476240	-.000694	.1497422	-.003379	-.022089	146.4683	.7725325
#2	.0442768	-.004332	.1498271	-.006984	-.021761	146.4029	.7634849
#3	.0446659	-.001402	.1508727	-.005614	-.020022	146.4715	.7624639

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0196066	.0044132	9.168344	.3096335	.1554988	.5380230	259.1261
Stddev	.0001266	.0000482	.040552	.0014243	.0004516	.0006495	1.2226
%RSD	.6458916	1.091974	.4423015	.4599908	.2904336	.1207122	.4718191
#1	.0197504	.0044267	9.214632	.3092863	.1553843	.5379084	260.4999
#2	.0195578	.0044533	9.151326	.3084149	.1551154	.5374385	258.1576
#3	.0195116	.0043598	9.139075	.3111993	.1559966	.5387221	258.7209

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.302050	58.26849	.3299814	-.010848	10.74749	.3980360	1.154381
Stddev	.046733	.19554	.0002637	.000366	.05297	.0042381	.002960
%RSD	.7415578	.3355907	.0799082	3.378379	.4928697	1.064750	.2564513
#1	6.355131	58.49124	.3299517	-.010730	10.80834	.3946581	1.155324
#2	6.283926	58.18916	.3297339	-.011258	10.71170	.4027915	1.151064
#3	6.267093	58.12508	.3302587	-.010554	10.72243	.3966583	1.156755

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	16.66124	.0622809	.0039998	.0126772	3.751899	6.833041	4.076991
Stddev	.05410	.0068470	.0003315	.0002639	.022678	.142929	.028323
%RSD	.3247181	10.99373	8.288840	2.081806	.6044283	2.091736	.6947068
#1	16.72314	.0700509	.0042368	.0124763	3.777751	6.907405	4.059959
#2	16.63760	.0571305	.0041416	.0129761	3.735365	6.923458	4.061328
#3	16.62298	.0596613	.0036209	.0125792	3.742581	6.668261	4.109686

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3439-05 Acquired: 10/23/2025 19:23:59 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1538460	.2932960	-.162544
Stddev	.0007710	.0034939	.000895
%RSD	.5011451	1.191250	.5506536
#1	.1529634	.2926144	-.163496
#2	.1543887	.2901931	-.161720
#3	.1541857	.2970804	-.162414

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	8148.804	112756.1	7186.641	6277.074	7021.814
Stddev	9.124	250.6	1.380	15.289	19.996
%RSD	.1119712	.2222649	.0192037	.2435672	.2847729
#1	8158.980	112948.3	7187.728	6289.401	7040.735
#2	8146.081	112847.3	7187.106	6281.854	7023.813
#3	8141.351	112472.6	7185.088	6259.966	7000.893

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170214BL Acquired: 10/23/2025 19:27:59 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0017004**	**.0031112**	**-.000334**	**.0021379**	**.0008284**	**.0015566**
Stddev	.0001766	.0012533	.000942	.0022876	.0000882	.0054895
%RSD	10.38487	40.28178	282.2977	107.0000	10.64071	352.6654
#1	.0018883	.0042340	.000516	.0006209	.0008405	-.004730
#2	.0016750	.0017592	-.001347	.0010237	.0009099	.003995
#3	.0015379	.0033405	-.000170	.0047691	.0007348	.005405

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0054011**	**.0000439**	**-.000057**	**-.005422**	**.0000906**	**-.000079**
Stddev	.0014450	.0000233	.000017	.015767	.0004273	.000122
%RSD	26.75382	52.96345	29.55278	290.7803	471.8700	154.8608
#1	.0070564	.0000221	-.000038	-.005653	-.000302	-.000002
#2	.0043919	.0000414	-.000068	-.021073	.000545	-.000015
#3	.0047550	.0000684	-.000066	.010459	.000028	-.000219

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000079**	**.0084630**	**-.000317**	**.0338196**	**-.000193**	**.0000916**
Stddev	.000075	.0075571	.000626	.0421362	.000292	.0000820
%RSD	94.36361	89.29635	197.4515	124.5908	151.4966	89.45649
#1	-.000054	.0171871	-.000066	.0409375	.000122	.0001026
#2	-.000163	.0042672	.000144	.0719436	-.000454	.0000047
#3	-.000020	.0039347	-.001030	-.011422	-.000245	.0001675

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1288174**	**-.001800**	**-.000207**	**.1386766**	**-.009938**	**-.000109**
Stddev	.0286977	.004211	.000214	.0850449	.001130	.000309
%RSD	22.27777	234.0084	103.2720	61.32610	11.37579	284.0240
#1	.0958014	-.001051	-.000037	.0424224	-.009227	-.000443
#2	.1477774	.001987	-.000447	.2036557	-.009344	-.000051
#3	.1428735	-.006335	-.000137	.1699516	-.011241	.000167

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170214BL Acquired: 10/23/2025 19:27:59 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003896	.0000442	.0144224	-.003081	F .0132383	.0026801
Stddev	.000690	.0008878	.0089246	.000673	.0011650	.0024195
%RSD	17.69763	2010.177	61.88057	21.84869	8.800389	90.27658
#1	-.003179	.0005136	.0247255	-.002856	.0127901	.0009505
#2	-.003956	-.000980	.0094530	-.002549	.0123640	.0054449
#3	-.004554	.000599	.0090886	-.003837	.0145609	.0016447

Elem	Sr4077
Units	ppm
Avg	-.000167
Stddev	.000177
%RSD	105.9119
#1	-.000338
#2	.000016
#3	-.000179

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6780.704	95338.02	5830.724	5313.415	8176.497
Stddev	15.561	857.15	6.692	67.535	21.905
%RSD	.2294908	.8990623	.1147748	1.271026	.2678977
#1	6798.600	94850.67	5827.865	5276.602	8201.169
#2	6770.359	96327.73	5838.371	5391.358	8159.336
#3	6773.153	94835.66	5825.936	5272.286	8168.986

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170214BS Acquired: 10/23/2025 19:32:13 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7960228**	**1.852539**	**.9753175**	**2.010472**	**.7972741**	**2.038892**
Stddev	.0004926	.042145	.0001517	.007987	.0032845	.007062
%RSD	.0618875	2.274978	.0155578	.3972622	.4119669	.3463671
#1	.7954620	1.855845	.9754380	2.014972	.7998806	2.038583
#2	.7963858	1.808839	.9751471	2.001250	.7935849	2.046104
#3	.7962206	1.892934	.9753673	2.015193	.7983568	2.031990

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2001881**	**.2031836**	**.1945532**	**1.020941**	**.3859497**	**.1969288**
Stddev	.0031417	.0029985	.0004330	.013570	.0017272	.0001371
%RSD	1.569384	1.475748	.2225524	1.329172	.4475119	.0696220
#1	.1983833	.2013649	.1949604	1.015918	.3867739	.1969733
#2	.2038158	.2066445	.1946009	1.010597	.3839648	.1970381
#3	.1983651	.2015416	.1940984	1.036306	.3871104	.1967750

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3133303**	**2.923634**	**.2075493**	**2.084294**	**.4960537**	**.0746517**
Stddev	.0005616	.057733	.0013231	.018444	.0005250	.0004255
%RSD	.1792243	1.974686	.6374720	.8848939	.1058395	.5699358
#1	.3139714	2.932763	.2066006	2.092594	.4965539	.0741849
#2	.3130940	2.861881	.2069867	2.097130	.4961004	.0750177
#3	.3129256	2.976258	.2090607	2.063159	.4955069	.0747526

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.953004**	**.2945722**	**.2134370**	**9.498760**	**.3246899**	**.3977133**
Stddev	.060648	.0026616	.0004779	.165334	.0069853	.0005689
%RSD	2.053785	.9035508	.2239061	1.740583	2.151380	.1430380
#1	2.961534	.2976037	.2129673	9.483893	.3211022	.3982987
#2	2.888542	.2934941	.2134212	9.341363	.3327400	.3971626
#3	3.008936	.2926188	.2139227	9.671026	.3202274	.3976785

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170214BS Acquired: 10/23/2025 19:32:13 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6965231	.1929823	.8553644	5.920998	F .0127504	.2036077
Stddev	.0008592	.0025715	.0040004	.005649	.0010938	.0031516
%RSD	.1233546	1.332491	.4676865	.0953983	8.578617	1.547860
#1	.6963919	.1940418	.8526459	5.915012	.0136851	.2008763
#2	.6974404	.1900504	.8534892	5.921746	.0115474	.2070560
#3	.6957371	.1948547	.8599579	5.926235	.0130186	.2028909

Elem	Sr4077
Units	ppm
Avg	.1938488
Stddev	.0006094
%RSD	.3143857
#1	.1931569
#2	.1943059
#3	.1940836

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6822.258	94551.52	5787.613	5301.183	7841.069
Stddev	14.490	622.94	58.516	45.483	18.595
%RSD	.2123944	.6588382	1.011049	.8579751	.2371533
#1	6808.932	94228.71	5815.176	5293.005	7826.304
#2	6820.158	95269.61	5720.407	5350.201	7834.950
#3	6837.683	94156.24	5827.258	5260.345	7861.952

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170172TB Acquired: 10/23/2025 19:36:14 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.001297**	**-.001336**	**.0011589**	**.0076313**	**.0033102**	**.0029241**	**.0015139**
Stddev	.001273	.000596	.0008553	.0008328	.0008682	.0131362	.0012536
%RSD	98.16325	44.62757	73.80042	10.91243	26.22796	449.2296	82.81082
#1	-.002764	-.001092	.0001786	.0081788	.0025151	.0174031	.0018195
#2	-.000483	-.000901	.0017524	.0080421	.0031790	-.008231	.0001357
#3	-.000644	-.002016	.0015459	.0066729	.0042365	-.000400	.0025864

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000021**	**-.000135**	**.0064054**	**.0010550**	**-.000101**	**.0002560**	**.0057130**
Stddev	.000011	.000051	.0052499	.0001694	.000121	.0003300	.0127060
%RSD	54.63922	37.35333	81.96110	16.05213	119.8840	128.9271	222.4039
#1	-.000020	-.000144	.0087837	.0012465	-.000098	.0004644	.0086871
#2	-.000010	-.000181	.0100452	.0009938	.000019	-.000125	.0166682
#3	-.000032	-.000081	.0003872	.0009248	-.000222	.000428	-.008216

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0009594**	**-.018871**	**.0002179**	**-.000090**	**280.4374**	**-.002170**	**.0014358**
Stddev	.0008978	.026212	.0002914	.000064	6.7996	.002176	.0002014
%RSD	93.58225	138.9023	133.7451	70.64660	2.424657	100.2660	14.02749
#1	.0007312	-.005705	.0005348	-.000091	278.1294	-.003456	.0013342
#2	.0001977	-.049056	.0001573	-.000026	275.0921	-.003396	.0016677
#3	.0019494	-.001851	-.000038	-.000154	288.0906	.000342	.0013054

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.094464**	**-.008418**	**.0002399**	**-.019408**	**.0008430**	**.0275062**	**.0012970**
Stddev	.034473	.000604	.0002624	.000175	.0020252	.0098523	.0003971
%RSD	36.49336	7.179814	109.3770	.9029692	240.2385	35.81844	30.61489
#1	-.104353	-.008629	.0004571	-.019331	-.000315	.0386349	.0017458
#2	-.122911	-.007737	-.000052	-.019609	.003181	.0198970	.0009911
#3	-.056127	-.008889	.000314	-.019285	-.000337	.0239866	.0011542

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170172TB Acquired: 10/23/2025 19:36:14 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0227724	-.011063	.0000124
Stddev	.0027216	.001580	.0000953
%RSD	11.95133	14.27749	765.6629
#1	.0232176	-.012800	.0001000
#2	.0198556	-.010675	-.000089
#3	.0252440	-.009713	.000026

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6506.424	89848.26	5759.706	5060.222	7102.841
Stddev	21.281	64.69	17.873	27.243	18.334
%RSD	.3270842	.0719954	.3103169	.5383826	.2581173
#1	6503.700	89856.75	5757.467	5028.765	7097.852
#2	6528.936	89908.28	5778.593	5075.891	7123.153
#3	6486.636	89779.75	5743.057	5076.012	7087.518

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170223BL Acquired: 10/23/2025 19:40:36 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000376	.0039455	.0010096	.0008519	-.001794	-.013657	.0008450
Stddev	.0013521	.0014493	.0011832	.0006643	.000962	.016696	.0033684
%RSD	3593.865	36.73328	117.1954	77.98535	53.63515	122.2555	398.6314
#1	-.000993	.0055593	.0015718	.0001659	-.000706	.004783	.0040022
#2	-.000462	.0027546	-.000350	.0008975	-.002533	-.027749	-.002701
#3	.001568	.0035228	.001807	.0014922	-.002144	-.018004	.001234

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000515	-.000065	-.004504	.0001737	.0001367	.0000401	-.001482
Stddev	.0000990	.000029	.002651	.0003255	.0002083	.0002518	.009474
%RSD	192.2954	44.18241	58.85294	187.3929	152.3808	628.6633	639.3245
#1	.0000962	-.000071	-.007562	.0002420	.0000530	.0003236	.004469
#2	.0001201	-.000034	-.002865	-.000181	.0003739	-.000046	-.012407
#3	-.000062	-.000091	-.003084	.000460	-.000017	-.000157	.003493

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000213	-.041454	-.000407	.0000281	.2776918	-.003507	-.000225
Stddev	.000436	.018689	.000092	.0005292	.0177941	.001165	.000209
%RSD	204.0797	45.08313	22.71174	1885.762	6.407851	33.22098	92.75546
#1	-.000266	-.025546	-.000325	.0003674	.2576404	-.002725	-.000448
#2	.000246	-.062036	-.000507	.0002985	.2838337	-.004846	-.000194
#3	-.000621	-.036780	-.000388	-.000582	.2916014	-.002951	-.000034

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2916715	-.009702	-.000148	-.004826	.0002194	.0135808	-.003739
Stddev	.0338725	.000228	.000153	.000228	.0045090	.0117859	.000374
%RSD	11.61325	2.353931	103.6261	4.724249	2055.391	86.78340	9.997229
#1	.2545476	-.009719	-.000178	-.004567	.0013761	.0132548	-.004002
#2	.3208969	-.009465	-.000284	-.004914	-.004755	.0019613	-.003311
#3	.2995699	-.009921	.000018	-.004997	.004037	.0255264	-.003904

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170223BL Acquired: 10/23/2025 19:40:36 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0082198	.0048337	-.000210
Stddev	.0029277	.0024975	.000113
%RSD	35.61758	51.66773	53.71841
#1	.0077702	.0049448	-.000140
#2	.0113462	.0072737	-.000151
#3	.0055429	.0022825	-.000341

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6949.233	97096.07	5791.937	5338.583	8320.099
Stddev	18.646	246.23	36.466	4.711	24.863
%RSD	.2683140	.2535990	.6295919	.0882374	.2988270
#1	6927.703	97134.31	5833.479	5336.019	8291.392
#2	6959.890	97320.95	5777.118	5335.711	8334.777
#3	6960.107	96832.96	5765.214	5344.020	8334.126

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170223BS Acquired: 10/23/2025 19:44:51 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7622415**	**1.789556**	**.9367798**	**1.946885**	**.7377542**	**1.839793**
Stddev	.0032869	.050507	.0018155	.001457	.0004355	.006032
%RSD	.4312133	2.822341	.1938033	.0748414	.0590342	.3278434
#1	.7642607	1.776484	.9351655	1.947852	.7380952	1.838039
#2	.7640149	1.746870	.9387452	1.945209	.7372636	1.834832
#3	.7584487	1.845314	.9364286	1.947594	.7379038	1.846507

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1828421**	**.1917574**	**.1871818**	**.9522758**	**.3718419**	**.1883838**
Stddev	.0016978	.0007427	.0001336	.0210214	.0003789	.0001738
%RSD	.9285747	.3873002	.0713637	2.207493	.1019096	.0922437
#1	.1844332	.1910288	.1870391	.9707437	.3718957	.1882964
#2	.1830384	.1917299	.1873038	.9293999	.3721911	.1885839
#3	.1810547	.1925134	.1872025	.9566838	.3714389	.1882711

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2997875**	**2.656750**	**.1860517**	**1.954740**	**.4733983**	**.0700424**
Stddev	.0006953	.020896	.0002858	.022761	.0001565	.0004908
%RSD	.2319279	.7865406	.1536045	1.164398	.0330640	.7007693
#1	.2990447	2.680797	.1857472	1.931961	.4732776	.0704532
#2	.3004228	2.643008	.1860937	1.954775	.4735752	.0701751
#3	.2998951	2.646444	.1863142	1.977483	.4733421	.0694988

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.562442**	**.2803235**	**.1977410**	**8.829665**	**.2981249**	**.3699702**
Stddev	.016612	.0045070	.0009466	.051229	.0014253	.0006751
%RSD	.6482785	1.607795	.4786930	.5801937	.4780939	.1824790
#1	2.545352	.2808055	.1979196	8.853531	.2965445	.3693803
#2	2.563443	.2755948	.1985856	8.864607	.2985172	.3698236
#3	2.578530	.2845701	.1967179	8.770857	.2993130	.3707065

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170223BS Acquired: 10/23/2025 19:44:51 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6305912**	**.1703703**	**.7687091**	**5.615662**	F **.0052373**	**.1751091**
Stddev	.0006522	.0020744	.0157505	.011476	.0009691	.0015782
%RSD	.1034319	1.217614	2.048961	.2043628	18.50303	.9012719
#1	.6308301	.1703452	.7770900	5.619926	.0045234	.1743392
#2	.6298532	.1683085	.7505401	5.602664	.0048480	.1740636
#3	.6310903	.1724572	.7784971	5.624397	.0063405	.1769245

Elem	Sr4077
Units	ppm
Avg	**.1760885**
Stddev	.0008158
%RSD	.4633101
#1	.1768896
#2	.1752587
#3	.1761172

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**7125.995**	**98591.76**	**6091.623**	**5427.310**	**8224.501**
Stddev	14.925	236.63	22.916	31.393	22.287
%RSD	.2094423	.2400118	.3761807	.5784314	.2709832
#1	7137.070	98481.68	6117.852	5402.145	8238.409
#2	7109.023	98430.22	6081.531	5417.298	8198.795
#3	7131.893	98863.38	6075.486	5462.489	8236.298

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCV08 Acquired: 10/23/2025 19:48:53 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV07 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.195668**	**4.633870**	**5.316569**	**5.189320**	**5.042572**	**10.26411**
Stddev	.011546	.232310	.007382	.024531	.005944	.05312
%RSD	.2222268	5.013308	.1388399	.4727204	.1178793	.5175669
#1	5.183636	4.401188	5.309396	5.163968	5.036271	10.20769
#2	5.196709	4.865807	5.316170	5.212938	5.043368	10.27147
#3	5.206658	4.634615	5.324142	5.191054	5.048079	10.31317

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.919973**	**.2539991**	**2.667870**	**25.57991**	**.9987099**	**2.602059**
Stddev	.055402	.0008710	.001960	.03227	.0042260	.001997
%RSD	.5584863	.3429205	.0734622	.1261582	.4231489	.0767305
#1	9.856164	.2549034	2.665624	25.54374	.9944536	2.600445
#2	9.955844	.2539281	2.668753	25.60575	1.002905	2.601440
#3	9.947909	.2531657	2.669233	25.59025	.998771	2.604292

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.301855**	**4.774023**	**2.522685**	**26.12414**	**2.622653**	**1.296063**
Stddev	.001871	.011356	.008948	.08791	.001659	.003849
%RSD	.1437557	.2378786	.3547111	.3364923	.0632374	.2969594
#1	1.300567	4.762173	2.512721	26.02436	2.621039	1.294106
#2	1.300997	4.784811	2.530036	26.15790	2.622566	1.300497
#3	1.304002	4.775085	2.525298	26.19016	2.624353	1.293586

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**23.07287**	**2.555883**	**2.605692**	**23.96265**	F **5.598450**	**5.130989**
Stddev	.22152	.007531	.005788	.20416	.018438	.008310
%RSD	.9600794	.2946615	.2221279	.8519990	.3293360	.1619540
#1	22.81711	2.547585	2.603320	23.72972	5.615395	5.121478
#2	23.20437	2.557778	2.612289	24.04768	5.601139	5.136845
#3	23.19712	2.562285	2.601467	24.11056	5.578815	5.134644

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCV08 Acquired: 10/23/2025 19:48:53 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal 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	**5.279564**	**5.014916**	**4.857008**	**5.374495**	**5.100995**	**4.826186**
Stddev	.021039	.026751	.035087	.035733	.036684	.028105
%RSD	.3984907	.5334195	.7223935	.6648541	.7191627	.5823478
#1	5.255305	4.985573	4.817472	5.358470	5.067111	4.794736
#2	5.290577	5.037945	4.884440	5.415434	5.139952	4.834979
#3	5.292810	5.021230	4.869112	5.349579	5.095923	4.848845

Elem	Sr4077
Units	ppm
Avg	**4.928828**
Stddev	.040967
%RSD	.8311637
#1	4.888604
#2	4.970499
#3	4.927383

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6734.189**	**93356.73**	**5749.027**	**5158.255**	**7240.673**
Stddev	8.362	502.97	14.436	34.363	10.850
%RSD	.1241668	.5387563	.2511010	.6661766	.1498464
#1	6724.550	93888.77	5763.079	5195.648	7228.157
#2	6739.493	92889.04	5734.235	5128.063	7247.409
#3	6738.523	93292.38	5749.766	5151.055	7246.452

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCB08 Acquired: 10/23/2025 19:52:55 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal 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	**.0003792**	**.0029171**	**-.000251**	**.0018072**	**-.000181**	**-.009562**	**.0005060**
Stddev	.0037210	.0003724	.001198	.0021464	.002198	.007000	.0024762
%RSD	981.2251	12.76674	476.8618	118.7691	1214.417	73.20611	489.4061
#1	.0040045	.0033452	.000219	.0004840	-.002110	-.013608	.0012658
#2	.0005637	.0027384	-.001613	.0042836	.002212	-.013600	.0025132
#3	-.003431	.0026677	.000641	.0006538	-.000645	-.001479	-.002261

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000231**	**-.000046**	**-.009538**	**-.000062**	**.0000356**	**-.000361**	**.0012483**
Stddev	.0000328	.000075	.016685	.000448	.0001145	.000358	.0083719
%RSD	142.0970	163.0047	174.9317	716.8120	321.7506	99.21844	670.6867
#1	.0000530	.000015	-.018559	-.000410	.0001671	.000009	.0106428
#2	-.000012	-.000129	.009716	.000443	-.000042	-.000706	-.005423
#3	.000028	-.000023	-.019771	-.000220	-.000018	-.000386	-.001475

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0005117**	**-.005406**	**-.000216**	**.0002476**	**.0713871**	**-.002070**	**-.000107**
Stddev	.0002517	.035613	.000275	.0002645	.0205970	.006704	.000281
%RSD	49.18668	658.7831	127.6421	106.8182	28.85260	323.9389	262.7840
#1	.0004346	.035133	-.000533	-.000057	.0498050	-.003601	.000128
#2	.0007929	-.031652	-.000076	.000382	.0735237	-.007876	-.000031
#3	.0003075	-.019698	-.000038	.000418	.0908325	.005268	-.000418

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1254789**	**-.000159**	**.0004173**	**-.005303**	**-.000717**	**.0220370**	**-.003697**
Stddev	.0619610	.001165	.0001875	.000176	.002879	.0159265	.000659
%RSD	49.37965	731.2348	44.91506	3.318581	401.5761	72.27178	17.81584
#1	.0692560	.001024	.0005385	-.005154	.002528	.0336953	-.003288
#2	.1919102	-.001304	.0002014	-.005497	-.002965	.0285252	-.003347
#3	.1152705	-.000198	.0005121	-.005258	-.001714	.0038905	-.004457

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCB08 Acquired: 10/23/2025 19:52:55 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB07 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0052586	-.000477	.0001549
Stddev	.0021686	.001290	.0000857
%RSD	41.23955	270.6916	55.31558
#1	.0056059	-.001561	.0001531
#2	.0072327	.000950	.0000701
#3	.0029373	-.000818	.0002414

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6988.796	95784.44	5954.052	5321.744	8411.648
Stddev	12.940	49.96	14.329	28.109	20.491
%RSD	.1851580	.0521592	.2406631	.5281887	.2436058
#1	7003.735	95737.02	5937.698	5348.500	8435.219
#2	6981.074	95836.61	5960.056	5292.454	8401.652
#3	6981.578	95779.69	5964.403	5324.278	8398.072

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170202TB Acquired: 10/23/2025 19:57:10 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000391**	**.0009341**	**.0016156**	**.0018799**	**.0031731**	**.0002764**	**.0018465**
Stddev	.001576	.0010782	.0002395	.0010627	.0010414	.0132611	.0017024
%RSD	403.3152	115.4297	14.82623	56.53264	32.82107	4797.428	92.19777
#1	.000938	-.000068	.0015024	.0017078	.0020105	.0012250	.0020380
#2	-.002132	.002075	.0014536	.0030181	.0034880	.0130378	.0000564
#3	.000022	.000795	.0018907	.0009137	.0040206	-.013434	.0034451

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000080**	**-.000103**	**.0290152**	**.0243626**	**-.000148**	**.0001084**	**.1175883**
Stddev	.000048	.000081	.0281380	.0003294	.000219	.0001442	.0055298
%RSD	59.69049	78.18436	96.97666	1.352114	148.4972	133.0509	4.702710
#1	-.000034	-.000030	.0485044	.0243829	.000101	-.000028	.1238085
#2	-.000077	-.000090	.0417845	.0240234	-.000314	.000093	.1157277
#3	-.000129	-.000190	-.003243	.0246813	-.000230	.000259	.1132288

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0021089**	**-.001510**	**.0014283**	**.0002002**	**354.5366**	**-.001104**	**.0015941**
Stddev	.0005292	.036244	.0003164	.0005139	5.6757	.002283	.0001652
%RSD	25.09458	2400.401	22.15491	256.7775	1.600889	206.8092	10.36013
#1	.0015358	.025683	.0017763	.0002202	359.5111	.001320	.0015159
#2	.0022117	.012445	.0013506	.0007038	355.7445	-.001418	.0014826
#3	.0025792	-.042657	.0011579	-.000324	348.3541	-.003213	.0017838

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.083747**	**-.005626**	**.0005597**	**-.019388**	**-.001470**	**.0165355**	**.0065005**
Stddev	.022938	.000220	.0002460	.000463	.001057	.0119968	.0008706
%RSD	27.38914	3.902917	43.94119	2.386849	71.86435	72.55197	13.39275
#1	-.063428	-.005381	.0004831	-.019163	-.002628	.0099858	.0074168
#2	-.079193	-.005805	.0003612	-.019081	-.001225	.0303815	.0056842
#3	-.108620	-.005691	.0008349	-.019921	-.000558	.0092391	.0064005

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170202TB Acquired: 10/23/2025 19:57:10 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0253142	-.009623	-.000091
Stddev	.0031741	.001922	.000093
%RSD	12.53883	19.97453	102.8293
#1	.0270892	-.010939	.000014
#2	.0272037	-.007417	-.000121
#3	.0216496	-.010512	-.000164

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6541.526	89243.73	5692.909	5107.940	7068.015
Stddev	27.417	334.49	35.203	20.978	27.992
%RSD	.4191272	.3748101	.6183570	.4106947	.3960443
#1	6571.716	89083.37	5676.962	5086.338	7099.980
#2	6534.684	89019.61	5668.502	5109.250	7056.184
#3	6518.177	89628.21	5733.263	5128.233	7047.880

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3414-01 Acquired: 10/23/2025 20:01:32 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0092388	.0001798	.1572758	.0036991	.0026243	.0811422	.0469078
Stddev	.0017371	.0025180	.0010677	.0021427	.0016329	.0101251	.0007389
%RSD	18.80262	1400.098	.6788917	57.92412	62.22303	12.47818	1.575241
#1	.0100035	-.002335	.1562231	.0043224	.0042659	.0828413	.0477487
#2	.0104624	.000174	.1583579	.0054610	.0010003	.0702751	.0466123
#3	.0072505	.002701	.1572464	.0013139	.0026066	.0903102	.0463624

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004822	.0007816	1.248835	.0011377	.0027323	.2126959	12.43107
Stddev	.0001183	.0000833	.019764	.0003099	.0000848	.0004380	.11663
%RSD	24.53650	10.65775	1.582575	27.23830	3.101914	.2059246	.9382090
#1	.0004827	.0008558	1.234835	.0012344	.0027515	.2130998	12.29854
#2	.0006002	.0006915	1.271443	.0013877	.0028057	.2122303	12.47657
#3	.0003636	.0007975	1.240227	.0007910	.0026395	.2127578	12.51808

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1135565	.0720175	.0263258	.0000245	224.2156	-.000604	.2527273
Stddev	.0006384	.0025521	.0002990	.0007091	2.5060	.005689	.0007266
%RSD	.5621951	3.543663	1.135640	2895.321	1.117687	942.2129	.2875092
#1	.1128364	.0747434	.0259929	-.000260	221.3354	-.006031	.2534392
#2	.1137798	.0696849	.0265713	.000832	225.8978	-.001096	.2519868
#3	.1140532	.0716244	.0264133	-.000498	225.4136	.005315	.2527558

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2309275	.0049310	.0008633	-.019728	.0014483	.3387774	.0123733
Stddev	.0286469	.0007804	.0001192	.000497	.0010978	.0206095	.0013455
%RSD	12.40514	15.82628	13.81017	2.519665	75.80021	6.083490	10.87409
#1	.2423157	.0042701	.0009310	-.019158	.0009696	.3361058	.0108766
#2	.2521291	.0047310	.0007256	-.019954	.0006711	.3605924	.0134825
#3	.1983378	.0057920	.0009333	-.020072	.0027042	.3196340	.0127608

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3414-01 Acquired: 10/23/2025 20:01:32 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.752891	-.010844	-.007985
Stddev	.005734	.001638	.000150
%RSD	.3271026	15.10465	1.873753
#1	1.758136	-.012475	-.007861
#2	1.746769	-.009199	-.008151
#3	1.753768	-.010858	-.007943

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6816.673	94586.79	5959.712	5305.046	7460.020
Stddev	19.605	222.26	21.979	15.230	23.938
%RSD	.2876014	.2349765	.3687893	.2870838	.3208799
#1	6798.739	94824.38	5940.825	5321.955	7446.355
#2	6813.677	94383.97	5983.836	5292.405	7446.046
#3	6837.604	94552.01	5954.476	5300.779	7487.661

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3414-02 Acquired: 10/23/2025 20:05:43 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0107457	-.001450	.2302038	.0015458	.0014073	.0772654	.0561135
Stddev	.0013035	.002975	.0016096	.0044680	.0011609	.0114721	.0022305
%RSD	12.13053	205.1866	.6992004	289.0445	82.49243	14.84759	3.974899
#1	.0104667	.000107	.2320287	-.000759	.0010587	.0727488	.0539789
#2	.0096042	.000424	.2295963	.006695	.0027026	.0687392	.0584288
#3	.0121661	-.004880	.2289864	-.001300	.0004607	.0903084	.0559328

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005808	.0008570	1.654617	.0021739	.0033534	.2321040	15.63618
Stddev	.0000320	.0000541	.035010	.0000810	.0001769	.0001388	.14287
%RSD	5.514731	6.311407	2.115914	3.724022	5.275410	.0597870	.9137344
#1	.0005756	.0009070	1.683850	.0022113	.0031643	.2321469	15.76683
#2	.0005518	.0008644	1.664184	.0020810	.0033811	.2319489	15.48362
#3	.0006152	.0007996	1.615818	.0022294	.0035148	.2322163	15.65810

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1423324	.1248316	.0343661	-.000063	272.9713	-.000392	.3109721
Stddev	.0016337	.0180453	.0004000	.000396	.3512	.001329	.0012435
%RSD	1.147811	14.45572	1.163849	628.1035	.1286658	338.6825	.3998732
#1	.1437317	.1197947	.0339374	-.000383	273.3083	-.001762	.3124075
#2	.1427283	.1098399	.0347292	-.000186	272.9984	.000892	.3102858
#3	.1405371	.1448602	.0344319	.000379	272.6074	-.000308	.3102230

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5855466	.0088623	.0009693	-.019595	.0018827	.4036692	.0110202
Stddev	.0797745	.0005069	.0000618	.000783	.0007381	.0159226	.0012116
%RSD	13.62393	5.720264	6.377802	3.998123	39.20476	3.944469	10.99390
#1	.5395737	.0092778	.0010154	-.020106	.0013943	.3873240	.0108488
#2	.5394039	.0082974	.0008990	-.018693	.0015219	.4191325	.0123083
#3	.6776621	.0090116	.0009934	-.019987	.0027318	.4045512	.0099035

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3414-02 Acquired: 10/23/2025 20:05:43 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**2.235531**	**-.006770**	**-.010119**
Stddev	.009386	.001457	.000148
%RSD	.4198365	21.51921	1.458182
#1	2.233698	-.007415	-.010288
#2	2.245698	-.007793	-.010017
#3	2.227197	-.005102	-.010052

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6939.782**	**95305.67**	**6184.233**	**5312.848**	**7542.878**
Stddev	4.400	258.67	56.260	30.633	3.069
%RSD	.0633970	.2714152	.9097410	.5765821	.0406936
#1	6937.630	95030.89	6212.221	5282.102	7540.471
#2	6944.843	95544.48	6119.467	5343.367	7546.334
#3	6936.872	95341.64	6221.010	5313.075	7541.829

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3414-03 Acquired: 10/23/2025 20:10:01 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0109671	-.001227	.2550666	.0017344	.0023237	.0799261	.0718329
Stddev	.0007502	.000808	.0007723	.0018189	.0011779	.0067826	.0001633
%RSD	6.840149	65.79689	.3028000	104.8772	50.69105	8.486046	.2273432
#1	.0104093	-.000586	.2555403	.0007972	.0018232	.0748649	.0719189
#2	.0106720	-.000961	.2541754	.0038308	.0014786	.0876327	.0716445
#3	.0118199	-.002135	.2554841	.0005751	.0036691	.0772806	.0719352

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0007215	.0004927	1.382052	.0017662	.0041506	.0592509	18.00034
Stddev	.0000996	.0000211	.012838	.0003400	.0001374	.0003954	.22717
%RSD	13.80239	4.273192	.9289254	19.25156	3.309493	.6673067	1.262032
#1	.0006367	.0004941	1.396726	.0018668	.0039989	.0590702	17.88870
#2	.0008311	.0004710	1.376538	.0020445	.0041866	.0597044	17.85058
#3	.0006966	.0005130	1.372892	.0013872	.0042664	.0589782	18.26173

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1300069	.1168183	.0280247	-.000155	230.4910	-.002739	.4612429
Stddev	.0003264	.0299800	.0001861	.000204	.6076	.006124	.0017323
%RSD	.2510678	25.66376	.6639471	131.7666	.2636051	223.5929	.3755655
#1	.1297939	.0894273	.0278467	.000026	231.1195	.004330	.4595803
#2	.1298441	.1488468	.0280096	-.000114	230.4466	-.006430	.4630373
#3	.1303827	.1121808	.0282179	-.000376	229.9068	-.006115	.4611111

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3846572	.0044315	.0014221	-.018302	.0005428	.4176142	.0093459
Stddev	.0466975	.0012295	.0000759	.000442	.0022421	.0184200	.0016809
%RSD	12.14002	27.74535	5.334719	2.417161	413.0328	4.410774	17.98566
#1	.3430240	.0037590	.0014600	-.018061	.0023857	.4128131	.0108835
#2	.4351497	.0036850	.0013347	-.018032	.0011962	.4020702	.0075513
#3	.3757977	.0058506	.0014716	-.018812	-.001953	.4379594	.0096029

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3414-03 Acquired: 10/23/2025 20:10:01 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**1.680378**	**-.007016**	**-.012776**
Stddev	.010368	.001536	.000342
%RSD	.6169862	21.88669	2.676097
#1	1.689643	-.008029	-.012815
#2	1.669180	-.005249	-.012417
#3	1.682312	-.007770	-.013097

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6817.278**	**95071.15**	**6017.261**	**5281.075**	**7439.503**
Stddev	6.798	621.62	39.591	45.133	6.088
%RSD	.0997199	.6538453	.6579588	.8546227	.0818322
#1	6817.922	94808.36	5991.729	5306.408	7440.921
#2	6823.731	95781.00	5997.186	5307.850	7444.757
#3	6810.181	94624.08	6062.868	5228.966	7432.831

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3414-04 Acquired: 10/23/2025 20:14:14 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0067276	-.000703	.1225815	.0018604	.0017563	.0486928	.0463675
Stddev	.0001526	.002179	.0012687	.0011901	.0016280	.0094102	.0013913
%RSD	2.268864	309.7671	1.034974	63.97079	92.69577	19.32574	3.000661
#1	.0066833	.000485	.1214208	.0005462	.0008335	.0595157	.0447707
#2	.0066021	.000623	.1239359	.0028653	.0007994	.0424435	.0470127
#3	.0068975	-.003218	.1223879	.0021698	.0036360	.0441192	.0473192

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002783	.0005393	.6403235	.0008633	.0015914	.2834323	7.889223
Stddev	.0000187	.0000683	.0116396	.0001830	.0001466	.0002091	.067306
%RSD	6.736346	12.67028	1.817766	21.20170	9.211362	.0737879	.8531334
#1	.0002758	.0004745	.6502346	.0010612	.0014830	.2835667	7.937765
#2	.0002609	.0006107	.6432298	.0007001	.0017582	.2831913	7.917514
#3	.0002982	.0005326	.6275062	.0008287	.0015331	.2835388	7.812390

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0611005	.0677198	.0185476	-.000182	210.5444	.0005024	.2018424
Stddev	.0004394	.0294302	.0001401	.000496	1.9432	.0032740	.0004999
%RSD	.7191001	43.45882	.7555664	272.4631	.9229530	651.6194	.2476521
#1	.0615747	.0934438	.0184655	.000371	210.8120	-.003096	.2023033
#2	.0607072	.0740891	.0187095	-.000327	212.3400	.003306	.2019128
#3	.0610195	.0356264	.0184680	-.000590	208.4813	.001297	.2013110

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1485811	.0040128	.0009058	-.019424	-.001059	.2455307	.0078937
Stddev	.0445001	.0009695	.0002305	.001137	.000978	.0171119	.0017037
%RSD	29.95005	24.15936	25.44819	5.852146	92.30389	6.969362	21.58345
#1	.1926705	.0050229	.0011224	-.020717	.000067	.2645039	.0061723
#2	.1036813	.0039257	.0006636	-.018582	-.001550	.2312657	.0095792
#3	.1493915	.0030898	.0009313	-.018974	-.001694	.2408226	.0079296

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3414-04 Acquired: 10/23/2025 20:14:14 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8944824	-.009375	-.005230
Stddev	.0112194	.003792	.000085
%RSD	1.254285	40.44774	1.626695
#1	.8988914	-.006736	-.005212
#2	.9028276	-.013721	-.005323
#3	.8817283	-.007669	-.005155

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6764.084	93648.65	5865.236	5229.612	7411.205
Stddev	9.503	171.87	26.808	5.231	18.554
%RSD	.1404902	.1835312	.4570726	.1000247	.2503506
#1	6768.921	93564.54	5875.400	5232.733	7407.341
#2	6753.135	93535.04	5885.476	5223.573	7394.888
#3	6770.195	93846.38	5834.832	5232.530	7431.387

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3414-05 Acquired: 10/23/2025 20:18:25 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0060279	.0013650	.1085575	.0033163	.0017002	.0463981	.0750936
Stddev	.0003238	.0024459	.0010998	.0041804	.0003869	.0063533	.0003904
%RSD	5.371750	179.1829	1.013125	126.0541	22.75568	13.69312	.5198393
#1	.0056825	-.000411	.1089711	.0035410	.0020851	.0443441	.0747445
#2	.0060765	.004155	.1093905	.0073798	.0013113	.0413260	.0755151
#3	.0063246	.000352	.1073108	-.000972	.0017043	.0535244	.0750212

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004821	.0005711	.6281278	.0000345	.0028026	.0603529	13.30656
Stddev	.0000191	.0000181	.0108597	.0002044	.0001241	.0005934	.07018
%RSD	3.966735	3.165712	1.728898	592.1423	4.427094	.9831779	.5274150
#1	.0004931	.0005895	.6164391	.0000425	.0029164	.0596818	13.22705
#2	.0004932	.0005534	.6300400	-.000174	.0026703	.0605689	13.33274
#3	.0004600	.0005703	.6379044	.000235	.0028212	.0608081	13.35989

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0746341	.0810948	.0237465	-.000329	217.8943	-.002652	.2110240
Stddev	.0002481	.0218315	.0004171	.000342	.4736	.005689	.0001217
%RSD	.3323718	26.92096	1.756640	103.7783	.2173685	214.5065	.0576630
#1	.0743492	.0933746	.0233167	-.000037	217.3676	-.006932	.2111645
#2	.0748017	.0940211	.0241497	-.000246	218.2850	.003804	.2109502
#3	.0747515	.0558887	.0237731	-.000705	218.0304	-.004828	.2109574

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.018887	.0013213	.0014236	-.020330	.0004914	.4422753	.0064251
Stddev	.010470	.0009493	.0006231	.000478	.0010171	.0188354	.0000129
%RSD	55.43308	71.84497	43.77112	2.350144	206.9846	4.258740	.2013081
#1	-.010006	.0002796	.0009758	-.020014	-.000630	.4217640	.0064138
#2	-.030431	.0021377	.0011598	-.020095	.000749	.4587947	.0064392
#3	-.016224	.0015466	.0021353	-.020879	.001355	.4462673	.0064222

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3414-05 Acquired: 10/23/2025 20:18:25 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6614524	-.006064	-.009905
Stddev	.0053003	.001614	.000055
%RSD	.8013149	26.62008	.5564946
#1	.6660054	-.006716	-.009843
#2	.6627178	-.004226	-.009924
#3	.6556338	-.007250	-.009948

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7022.968	96875.23	6010.044	5471.336	7650.979
Stddev	20.259	97.20	7.150	4.371	29.005
%RSD	.2884654	.1003367	.1189685	.0798935	.3791079
#1	7019.285	96809.56	6006.433	5476.364	7647.791
#2	7004.804	96986.89	6005.420	5468.441	7623.699
#3	7044.816	96829.25	6018.280	5469.202	7681.446

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3414-06 Acquired: 10/23/2025 20:22:36 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0060329	.0008327	.1099951	.0056346	.0031984	.0598608	.0582127
Stddev	.0014061	.0005115	.0001523	.0044788	.0013067	.0188569	.0032760
%RSD	23.30633	61.42195	.1384730	79.48667	40.85603	31.50131	5.627692
#1	.0054264	.0014219	.1098978	.0095854	.0021604	.0445326	.0611804
#2	.0076404	.0005020	.1101707	.0007690	.0046658	.0541321	.0546973
#3	.0050319	.0005744	.1099169	.0065495	.0027689	.0809178	.0587603

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004321	.0007236	.4553849	.0009595	.0024466	.3744687	10.20124
Stddev	.0000987	.0000751	.0138881	.0001472	.0001195	.0011366	.11570
%RSD	22.84771	10.38100	3.049753	15.33701	4.885024	.3035134	1.134129
#1	.0003590	.0007366	.4672083	.0008148	.0023098	.3748728	10.15230
#2	.0005444	.0006428	.4588559	.0009547	.0025310	.3731854	10.33336
#3	.0003928	.0007913	.4400905	.0011090	.0024990	.3753481	10.11805

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0510327	.0773070	.0225067	-.000141	194.8584	-.002058	.1685558
Stddev	.0007963	.0178403	.0003939	.000487	1.8249	.003896	.0007845
%RSD	1.560331	23.07719	1.750029	345.1726	.9365209	189.2717	.4654138
#1	.0507004	.0648320	.0229609	-.000506	194.3601	-.006502	.1692850
#2	.0519413	.0693473	.0222586	.000412	196.8807	-.000444	.1686567
#3	.0504563	.0977415	.0223007	-.000330	193.3344	.000771	.1677258

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0183857	.0021428	.0007635	-.019880	.0012193	.3257965	.0093559
Stddev	.0138234	.0005679	.0001720	.000185	.0029955	.0110809	.0021502
%RSD	75.18581	26.50116	22.52807	.9285776	245.6742	3.401157	22.98210
#1	.0288847	.0024245	.0008598	-.019948	.0002293	.3383355	.0069239
#2	.0235484	.0025147	.0005650	-.019671	.0045845	.3173213	.0110048
#3	.0027239	.0014891	.0008659	-.020021	-.001156	.3217326	.0101389

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3414-06 Acquired: 10/23/2025 20:22:36 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5128332	-.007012	-.007630
Stddev	.0018818	.002319	.000155
%RSD	.3669419	33.06853	2.030679
#1	.5147381	-.004836	-.007544
#2	.5127863	-.006749	-.007538
#3	.5109754	-.009451	-.007809

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6700.970	92069.03	5622.706	5215.243	7318.887
Stddev	25.025	183.64	44.809	9.600	24.984
%RSD	.3734518	.1994580	.7969240	.1840679	.3413578
#1	6672.213	92105.57	5611.424	5221.305	7292.121
#2	6712.889	92231.65	5672.078	5220.250	7322.949
#3	6717.806	91869.87	5584.617	5204.175	7341.591

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3414-07 Acquired: 10/23/2025 20:26:48 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0078578	-.001844	.1954766	.0040213	.0025531	.0477067	.0650572
Stddev	.0030573	.002829	.0014903	.0027054	.0023751	.0103182	.0007160
%RSD	38.90800	153.4299	.7623796	67.27613	93.03021	21.62850	1.100520
#1	.0043888	-.002410	.1960920	.0030769	.0021718	.0545633	.0656258
#2	.0090251	-.004347	.1965606	.0070723	.0003916	.0527167	.0652926
#3	.0101594	.001226	.1937772	.0019147	.0050958	.0358400	.0642531

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001297	.0004297	.5235013	.0009987	.0011786	.3332460	6.092688
Stddev	.0000233	.0000706	.0308351	.0001175	.0002457	.0003301	.015868
%RSD	17.99125	16.42274	5.890177	11.76480	20.85124	.0990613	.2604364
#1	.0001564	.0003717	.5130309	.0009952	.0010654	.3336118	6.110525
#2	.0001189	.0005083	.4992647	.0011179	.0014605	.3329702	6.087397
#3	.0001137	.0004091	.5582083	.0008830	.0010098	.3331560	6.080141

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0446512	.0690188	.0153248	.0003452	233.9241	-.003763	.1721810
Stddev	.0012640	.0540614	.0003796	.0001658	1.2721	.004734	.0007299
%RSD	2.830759	78.32854	2.476765	48.04905	.5438259	125.8227	.4239229
#1	.0437142	.0297923	.0157544	.0001710	235.3770	-.008858	.1720423
#2	.0460888	.0465774	.0150349	.0005012	233.3851	.000500	.1715304
#3	.0441507	.1306868	.0151850	.0003633	233.0102	-.002930	.1729703

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1131539	.0029872	.0008047	-.019956	-.001739	.2120565	.0058822
Stddev	.0713102	.0011017	.0002793	.000382	.002476	.0297839	.0012955
%RSD	63.02058	36.88068	34.70907	1.912522	142.3610	14.04526	22.02495
#1	.1843031	.0040287	.0008440	-.020396	-.004187	.2442382	.0070088
#2	.0416837	.0018338	.0005078	-.019722	.000763	.2064695	.0044665
#3	.1134748	.0030990	.0010623	-.019749	-.001793	.1854617	.0061712

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3414-07 Acquired: 10/23/2025 20:26:48 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7314963	-.011940	-.003703
Stddev	.0087736	.000585	.000032
%RSD	1.199400	4.901220	.8720434
#1	.7364112	-.012458	-.003694
#2	.7367107	-.011305	-.003739
#3	.7213669	-.012058	-.003676

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6681.705	91566.63	5830.275	5212.152	7302.642
Stddev	18.386	566.08	39.114	31.575	19.672
%RSD	.2751642	.6182205	.6708761	.6057869	.2693824
#1	6661.783	90981.42	5865.979	5188.341	7280.867
#2	6698.019	92111.42	5836.379	5247.968	7319.130
#3	6685.315	91607.04	5788.468	5200.145	7307.930

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3414-08 Acquired: 10/23/2025 20:30:58 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0125551	-.001670	.1623525	.0055228	.0035686	.0634257	.0602565
Stddev	.0025970	.000597	.0015879	.0040095	.0012974	.0125280	.0018643
%RSD	20.68447	35.78426	.9780814	72.59965	36.35709	19.75218	3.093970
#1	.0102259	-.001498	.1635934	.0053898	.0026141	.0508064	.0612173
#2	.0153553	-.001177	.1629011	.0015814	.0030459	.0758602	.0614443
#3	.0120840	-.002334	.1605630	.0095972	.0050459	.0636104	.0581077

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005975	.0004335	1.488485	.0008722	.0026476	.1105383	14.07679
Stddev	.0000370	.0000620	.014503	.0001019	.0000258	.0002501	.09690
%RSD	6.189421	14.29494	.9743415	11.67811	.9737716	.2262389	.6883553
#1	.0006323	.0003754	1.485888	.0008817	.0026743	.1104780	14.00721
#2	.0006015	.0004987	1.475456	.0009690	.0026229	.1108130	14.03570
#3	.0005587	.0004263	1.504111	.0007659	.0026456	.1103239	14.18747

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1358395	.1213504	.0235489	.0002250	208.4470	-.001609	.3301235
Stddev	.0007153	.0449995	.0003037	.0005521	1.1850	.000419	.0006894
%RSD	.5266033	37.08228	1.289575	245.3621	.5684758	26.02386	.2088434
#1	.1361948	.1398151	.0237338	-.000406	207.7474	-.001412	.3299999
#2	.1350161	.1541804	.0237144	.000465	207.7784	-.001324	.3295042
#3	.1363077	.0700556	.0231984	.000616	209.8152	-.002089	.3308663

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2626237	.0027376	.0009598	-.018192	-.000908	.3564343	.0099417
Stddev	.0362438	.0015516	.0003206	.000386	.001408	.0085477	.0013107
%RSD	13.80064	56.67834	33.40141	2.119195	155.1152	2.398101	13.18434
#1	.2507473	.0013902	.0010591	-.018425	.000288	.3576882	.0111786
#2	.2338082	.0044340	.0012190	-.017747	-.000552	.3642857	.0100786
#3	.3033157	.0023886	.0006013	-.018404	-.002460	.3473290	.0085678

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3414-08 Acquired: 10/23/2025 20:30:58 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.901107	-.006816	-.009089
Stddev	.020766	.001316	.000002
%RSD	1.092293	19.30679	.0240971
#1	1.905585	-.005413	-.009091
#2	1.919268	-.007012	-.009087
#3	1.878468	-.008023	-.009088

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6598.051	89944.56	5756.057	5048.484	7230.954
Stddev	15.304	244.56	38.095	31.561	18.890
%RSD	.2319481	.2718974	.6618293	.6251619	.2612356
#1	6582.712	90196.09	5719.022	5072.001	7219.189
#2	6598.121	89929.97	5795.131	5060.836	7220.930
#3	6613.320	89707.63	5754.019	5012.615	7252.743

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3417-09 Acquired: 10/23/2025 20:35:08 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0143556	-.002054	.0676540	.0021858	.0014611	.0611594	.0665991
Stddev	.0018667	.001704	.0010104	.0010301	.0005426	.0137114	.0014402
%RSD	13.00355	82.94894	1.493519	47.12864	37.13911	22.41917	2.162566
#1	.0162319	-.003971	.0671063	.0028578	.0020847	.0734964	.0661111
#2	.0124986	-.000715	.0688200	.0009998	.0010967	.0635846	.0682200
#3	.0143363	-.001475	.0670356	.0026998	.0012018	.0463972	.0654663

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009609	-.000141	2.699330	.0007809	.0027282	.0306107	25.75995
Stddev	.0000060	.000104	.012447	.0003933	.0000315	.0004675	.43879
%RSD	.6248440	73.91611	.4611116	50.35886	1.155307	1.527088	1.703378
#1	.0009625	-.000236	2.685209	.0003269	.0027166	.0307385	25.87552
#2	.0009542	-.000030	2.708709	.0010135	.0027639	.0310010	25.27495
#3	.0009659	-.000157	2.704072	.0010024	.0027041	.0300927	26.12939

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2969889	.1724167	.0217890	.0000380	281.5606	-.003036	.1911619
Stddev	.0029717	.0326458	.0001267	.0005999	3.4083	.001060	.0002307
%RSD	1.000605	18.93426	.5814508	1579.842	1.210513	34.91787	.1206572
#1	.2946466	.1397527	.0217918	-.000653	284.5047	-.004100	.1913678
#2	.2959884	.2050443	.0216610	.000339	277.8267	-.003026	.1912052
#3	.3003317	.1724531	.0219143	.000428	282.3504	-.001980	.1909126

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6188893	.0089612	.0007370	-.020338	-.000020	.6028236	.0152584
Stddev	.0175445	.0010716	.0000891	.001112	.003771	.0057450	.0014517
%RSD	2.834836	11.95786	12.08505	5.467283	18804.47	.9530133	9.514231
#1	.6386721	.0098679	.0006639	-.021300	.002865	.6090790	.0160913
#2	.6127779	.0077787	.0008362	-.020593	.001361	.6016084	.0161018
#3	.6052178	.0092370	.0007109	-.019121	-.004286	.5977835	.0135821

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3417-09 Acquired: 10/23/2025 20:35:08 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**2.404205**	**-.008603**	**-.017054**
Stddev	.012720	.000203	.000378
%RSD	.5290639	2.361987	2.219444
#1	2.414733	-.008495	-.017305
#2	2.407809	-.008837	-.016619
#3	2.390071	-.008476	-.017239

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6603.127**	**91040.45**	**5765.430**	**5142.319**	**7154.962**
Stddev	4.793	9.07	100.818	30.856	9.562
%RSD	.0725864	.0099622	1.748667	.6000368	.1336476
#1	6601.242	91034.71	5840.256	5176.213	7145.954
#2	6608.576	91050.91	5650.783	5115.860	7164.996
#3	6599.563	91035.74	5805.252	5134.885	7153.935

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCV09 Acquired: 10/23/2025 20:39:26 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV09 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.315914**	**4.938859**	**5.376325**	**5.360708**	**5.143456**	**10.26751**
Stddev	.003890	.091552	.010523	.006290	.009648	.01432
%RSD	.0731701	1.853698	.1957326	.1173387	.1875742	.1395050
#1	5.319875	4.986003	5.364722	5.367929	5.138257	10.28344
#2	5.312100	4.997232	5.379003	5.357772	5.137523	10.25568
#3	5.315766	4.833344	5.385251	5.356422	5.154588	10.26342

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.990404**	**.2595496**	**2.694813**	**25.69384**	**1.004925**	**2.625954**
Stddev	.013524	.0021167	.003104	.08487	.002128	.004907
%RSD	.1353678	.8155151	.1151919	.3303068	.2118050	.1868716
#1	10.00040	.2612353	2.691535	25.73889	1.005138	2.620636
#2	9.97502	.2571741	2.695198	25.59595	1.002698	2.626921
#3	9.99579	.2602394	2.697707	25.74669	1.006939	2.630306

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.317214**	**4.852715**	**2.543802**	**26.34161**	**2.649920**	**1.324992**
Stddev	.002013	.010904	.011324	.08460	.003414	.000332
%RSD	.1527872	.2246999	.4451767	.3211758	.1288521	.0250547
#1	1.315685	4.840191	2.547503	26.37486	2.646096	1.324705
#2	1.316462	4.857861	2.531089	26.24543	2.650997	1.324917
#3	1.319494	4.860095	2.552812	26.40453	2.652665	1.325356

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**25.70878**	**2.566879**	**2.654623**	**25.63997**	F **5.727814**	**5.183482**
Stddev	.12206	.005671	.003929	.12140	.038185	.002406
%RSD	.4747614	.2209384	.1480151	.4734872	.6666541	.0464179
#1	25.77039	2.562781	2.651561	25.51024	5.759493	5.184175
#2	25.78776	2.564505	2.659053	25.75084	5.685415	5.180805
#3	25.56820	2.573352	2.653255	25.65884	5.738535	5.185465

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCV09 Acquired: 10/23/2025 20:39:26 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal 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	**5.358036**	**5.042504**	**4.893519**	F **5.557055**	**5.300365**	**4.862435**
Stddev	.000972	.010416	.005109	.023808	.017406	.005802
%RSD	.0181317	.2065662	.1043982	.4284327	.3283862	.1193188
#1	5.358373	5.046964	4.887940	5.582994	5.312263	4.869088
#2	5.356941	5.030601	4.897968	5.551975	5.308444	4.858432
#3	5.358794	5.049948	4.894649	5.536197	5.280388	4.859784

Elem	Sr4077
Units	ppm
Avg	**4.939057**
Stddev	.111876
%RSD	2.265123
#1	4.983943
#2	4.811709
#3	5.021519

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6627.465**	**91101.14**	**5661.052**	**5040.808**	**7128.966**
Stddev	1.793	205.19	26.503	12.526	6.158
%RSD	.0270556	.2252345	.4681601	.2484925	.0863862
#1	6628.458	91320.96	5639.515	5048.132	7131.147
#2	6625.395	91067.80	5690.649	5026.344	7122.014
#3	6628.542	90914.66	5652.993	5047.948	7133.737

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCB09 Acquired: 10/23/2025 20:43:29 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB09 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0025606**	**.0029334**	**.0010429**	**.0014699**	**.0020480**	**.0091425**
Stddev	.0008290	.0023115	.0004406	.0009349	.0016222	.0146503
%RSD	32.37357	78.79720	42.24297	63.60101	79.20738	160.2443
#1	.0034075	.0052801	.0010593	.0004134	.0003002	-.000135
#2	.0025235	.0006589	.0014751	.0021902	.0035053	.026032
#3	.0017508	.0028613	.0005944	.0018059	.0023386	.001530

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0097854**	**.0000917**	**-.000106**	**.0018876**	**.0000831**	**.0000001**
Stddev	.0023188	.0000627	.000048	.0105864	.0003436	.0002303
%RSD	23.69610	68.44878	45.27560	560.8545	413.5233	238803.8
#1	.0099574	.0000327	-.000109	.0015426	-.000033	.0001507
#2	.0120134	.0000847	-.000056	.0126422	-.000188	.0001146
#3	.0073855	.0001576	-.000152	-.008522	.000470	-.000265

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000199**	**-.002213**	**.0002181**	**-.016642**	**-.000397**	**.0000024**
Stddev	.000373	.003619	.0004482	.021495	.000061	.0001608
%RSD	187.4539	163.4974	205.4701	129.1603	15.26266	6758.418
#1	.000191	-.006012	.0007059	-.038164	-.000376	-.000177
#2	-.000552	.001193	.0001241	-.016587	-.000350	.000050
#3	-.000235	-.001821	-.000176	.004825	-.000466	.000134

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.8461873**	**-.004621**	**-.000194**	**.7866453**	**-.000464**	**.0002943**
Stddev	.0239161	.003415	.000227	.0464185	.000247	.0000788
%RSD	2.826334	73.88900	116.9611	5.900820	53.24390	26.76591
#1	.8260365	-.000679	-.000412	.7330490	-.000399	.0002809
#2	.8399092	-.006636	-.000212	.8139482	-.000737	.0003790
#3	.8726162	-.006549	.000041	.8129387	-.000256	.0002231

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCB09 Acquired: 10/23/2025 20:43:29 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB09 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006019	-.000371	.0142889	-.002115	F .0133961	F .0195508
Stddev	.000118	.001846	.0070841	.000255	.0026037	.0042972
%RSD	1.968732	498.1447	49.57794	12.04641	19.43606	21.97960
#1	-.006066	.001761	.0166457	-.002097	.0146848	.0193481
#2	-.005884	-.001457	.0198941	-.001870	.0151040	.0239457
#3	-.006107	-.001416	.0063267	-.002379	.0103994	.0153585

Elem	Sr4077
Units	ppm
Avg	.0001509
Stddev	.0001677
%RSD	111.0928
#1	.0000019
#2	.0001184
#3	.0003325

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6828.470	95885.13	5712.109	5325.011	8186.288
Stddev	4.300	556.96	58.662	36.309	16.757
%RSD	.0629763	.5808607	1.026970	.6818577	.2046935
#1	6823.966	95260.56	5750.073	5284.363	8181.801
#2	6828.910	96064.64	5644.545	5336.439	8204.831
#3	6832.533	96330.21	5741.710	5354.232	8172.231

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3414-10 Acquired: 10/23/2025 20:47:43 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0185697	-.000154	.1777814	.0060848	.0022110	.1260537	.0776414
Stddev	.0021014	.003397	.0003372	.0011569	.0004342	.0176756	.0019751
%RSD	11.31657	2206.970	.1896480	19.01393	19.63632	14.02224	2.543821
#1	.0208980	.000639	.1779608	.0056183	.0025781	.1097245	.0798810
#2	.0179976	.002776	.1773925	.0052339	.0023231	.1236145	.0768946
#3	.0168135	-.003878	.1779910	.0074021	.0017318	.1448222	.0761487

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010535	.0010894	2.142832	.0000276	.0047926	.1198414	29.05224
Stddev	.0001144	.0000573	.022876	.0001491	.0001109	.0003815	.35134
%RSD	10.85692	5.261649	1.067536	540.3948	2.313641	.3183369	1.209343
#1	.0009697	.0011442	2.116523	-.000078	.0048633	.1198303	28.80488
#2	.0011838	.0010298	2.153943	.000198	.0048497	.1202282	28.89743
#3	.0010070	.0010943	2.158030	-.000038	.0046648	.1194655	29.45439

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2360069	.2218791	.0520313	-.000366	335.0512	-.002298	.2961534
Stddev	.0017963	.0186396	.0003840	.000145	2.0693	.000943	.0013539
%RSD	.7611443	8.400783	.7380541	39.63060	.6176206	41.05036	.4571514
#1	.2346693	.2172085	.0524224	-.000230	332.7475	-.002374	.2948215
#2	.2353028	.2060189	.0520167	-.000519	335.6535	-.001319	.2975282
#3	.2380487	.2424098	.0516548	-.000349	336.7526	-.003200	.2961106

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7016368	.0159824	.0012132	-.020154	.0026993	.8624681	.0142989
Stddev	.0609693	.0008595	.0001608	.000549	.0013276	.0117418	.0005283
%RSD	8.689585	5.377915	13.25813	2.725497	49.18402	1.361422	3.694599
#1	.7516945	.0167440	.0012176	-.019589	.0011991	.8658966	.0137022
#2	.6337369	.0161527	.0010502	-.020687	.0037227	.8493936	.0147069
#3	.7194792	.0150505	.0013718	-.020185	.0031762	.8721140	.0144876

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3414-10 Acquired: 10/23/2025 20:47:43 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**2.058667**	**-.007750**	**-.020994**
Stddev	.021851	.000947	.000360
%RSD	1.061438	12.22094	1.715111
#1	2.059312	-.007837	-.020760
#2	2.036501	-.008650	-.020812
#3	2.080189	-.006762	-.021408

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6502.640**	**88798.26**	**5749.283**	**5072.579**	**6983.090**
Stddev	22.171	485.12	35.484	46.481	27.263
%RSD	.3409605	.5463117	.6171938	.9163193	.3904086
#1	6506.967	88495.10	5732.725	5029.742	6986.943
#2	6478.624	89357.77	5725.104	5122.002	6954.106
#3	6522.329	88541.91	5790.020	5065.992	7008.222

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3414-11 Acquired: 10/23/2025 20:52:00 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0116013	-.001274	.1324313	.0035217	.0022233	.0549134	.0578839
Stddev	.0013764	.001925	.0006606	.0025190	.0010595	.0125977	.0013894
%RSD	11.86400	151.1663	.4988452	71.52706	47.65417	22.94104	2.400251
#1	.0111171	-.000637	.1317932	.0052095	.0022075	.0429020	.0585358
#2	.0105324	.000253	.1331124	.0006263	.0032907	.0538130	.0588275
#3	.0131543	-.003437	.1323882	.0047293	.0011718	.0680252	.0562885

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004165	.0001983	.7216164	.0004535	.0022116	.1188396	12.50747
Stddev	.0000147	.0000229	.0026886	.0000615	.0000727	.0005650	.32257
%RSD	3.534870	11.56290	.3725822	13.55335	3.288362	.4754500	2.578993
#1	.0004022	.0002005	.7188377	.0004129	.0022495	.1192287	12.62943
#2	.0004155	.0002201	.7218066	.0005242	.0021278	.1190985	12.14170
#3	.0004316	.0001744	.7242049	.0004234	.0022576	.1181915	12.75127

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0826039	.0620891	.0161172	-.000169	280.2610	-.000059	.3409202
Stddev	.0002323	.0295128	.0002721	.000402	6.8740	.002357	.0088864
%RSD	.2811996	47.53290	1.687937	238.1854	2.452703	4003.060	2.606584
#1	.0823482	.0311307	.0158032	.000174	284.2589	.002417	.3476546
#2	.0828018	.0652318	.0162823	-.000070	272.3237	-.002275	.3308483
#3	.0826616	.0899047	.0162662	-.000610	284.2005	-.000319	.3442576

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4541926	.0109102	.0009291	-.019554	-.001712	.2853342	.0108415
Stddev	.0475377	.0010585	.0001537	.000173	.002223	.0034875	.0008666
%RSD	10.46641	9.702309	16.54252	.8851296	129.8208	1.222249	7.993792
#1	.4001705	.0109949	.0007800	-.019613	-.002521	.2879261	.0098929
#2	.4896319	.0098119	.0009204	-.019358	-.003417	.2813691	.0115918
#3	.4727754	.0119239	.0010870	-.019689	.000802	.2867074	.0110398

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3414-11 Acquired: 10/23/2025 20:52:00 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**1.480392**	**-.010475**	**-.009278**
Stddev	.001618	.001762	.000187
%RSD	.1092936	16.82319	2.013541
#1	1.481205	-.011734	-.009378
#2	1.481442	-.011230	-.009062
#3	1.478529	-.008461	-.009393

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6792.162**	**95016.74**	**5983.065**	**5401.353**	**7374.998**
Stddev	42.845	2109.72	59.419	124.756	47.056
%RSD	.6307944	2.220366	.9931250	2.309718	.6380432
#1	6761.615	94009.67	5933.252	5322.350	7336.346
#2	6773.733	97441.29	5967.112	5545.176	7361.252
#3	6841.137	93599.27	6048.833	5336.534	7427.396

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3414-12 Acquired: 10/23/2025 20:56:19 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0112680	.0008077	.1130291	.0041201	.0015573	.0437211	.0520760
Stddev	.0016007	.0015963	.0014913	.0009942	.0008352	.0127542	.0010930
%RSD	14.20573	197.6260	1.319379	24.12983	53.63224	29.17179	2.098815
#1	.0110543	.0025641	.1124879	.0051455	.0017559	.0343405	.0527410
#2	.0129649	.0004137	.1118840	.0040544	.0006407	.0385791	.0526724
#3	.0097849	-.000555	.1147155	.0031604	.0022753	.0582437	.0508146

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004623	.0001191	.7128595	.0018088	.0020265	.0681688	11.85191
Stddev	.0000904	.0000709	.0108428	.0002267	.0000344	.0003182	.05533
%RSD	19.55170	59.53607	1.521036	12.53024	1.699448	.4667372	.4668549
#1	.0003631	.0000498	.7250950	.0020427	.0019902	.0681372	11.90371
#2	.0005399	.0001159	.7090409	.0015902	.0020587	.0685016	11.79362
#3	.0004840	.0001915	.7044426	.0017934	.0020307	.0678676	11.85840

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0833383	.0586510	.0152059	.0000208	181.7579	-.004185	.3335232
Stddev	.0010465	.0352901	.0002416	.0004099	1.5380	.004381	.0010371
%RSD	1.255690	60.16970	1.588889	1976.013	.8462082	104.6782	.3109642
#1	.0821363	.0835843	.0149399	.0003725	183.3142	-.008084	.3345158
#2	.0840468	.0740975	.0154118	-.000429	180.2388	.000555	.3324467
#3	.0838317	.0182712	.0152658	.000119	181.7207	-.005025	.3336073

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3545469	.0050239	.0011290	-.019383	-.001197	.3005795	.0071414
Stddev	.0590400	.0005698	.0002363	.000573	.001038	.0184734	.0005793
%RSD	16.65224	11.34149	20.93151	2.956282	86.67138	6.145940	8.111724
#1	.2978649	.0049923	.0008574	-.019910	-.000600	.2864804	.0067286
#2	.4156917	.0056088	.0012417	-.019466	-.002396	.2937663	.0068919
#3	.3500842	.0044706	.0012879	-.018773	-.000596	.3214919	.0078036

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3414-12 Acquired: 10/23/2025 20:56:19 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**1.446251**	**-.008509**	**-.008859**
Stddev	.004062	.000983	.000031
%RSD	.2808488	11.55250	.3502605
#1	1.450383	-.007433	-.008842
#2	1.442263	-.008735	-.008839
#3	1.446106	-.009360	-.008895

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6617.293**	**91052.53**	**5689.895**	**5095.756**	**7287.017**
Stddev	34.916	714.74	36.523	25.859	42.922
%RSD	.5276499	.7849762	.6418960	.5074644	.5890203
#1	6586.631	90245.52	5685.359	5076.468	7243.608
#2	6609.952	91605.72	5655.851	5125.140	7288.010
#3	6655.296	91306.34	5728.474	5085.659	7329.435

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3414-13 Acquired: 10/23/2025 21:00:30 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0260263	-.000726	.2018176	.0061388	.0018116	.1184417	.0746446
Stddev	.0028376	.002484	.0011178	.0045265	.0022729	.0043758	.0007112
%RSD	10.90281	342.3099	.5538644	73.73496	125.4683	3.694441	.9528268
#1	.0228682	-.002174	.2006201	.0056578	-.000331	.1201480	.0741806
#2	.0268492	.002143	.2028335	.0018721	.001569	.1134698	.0742898
#3	.0283615	-.002146	.2019993	.0108866	.004196	.1217072	.0754635

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012935	.0004225	2.168093	-.000280	.0073500	.0291959	31.65592
Stddev	.0000663	.0000794	.016690	.000263	.0001650	.0002137	.38877
%RSD	5.128629	18.79801	.7697891	93.89276	2.244461	.7318706	1.228107
#1	.0013212	.0003503	2.149957	-.000166	.0075014	.0294405	31.93389
#2	.0012178	.0004097	2.171517	-.000093	.0073745	.0291017	31.82221
#3	.0013414	.0005075	2.182806	-.000581	.0071742	.0290456	31.21166

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2331822	.2435926	.0436420	-.000561	235.3396	-.000698	.7978004
Stddev	.0016087	.0209924	.0003302	.000470	3.4481	.007406	.0008650
%RSD	.6899042	8.617813	.7565777	83.90263	1.465173	1060.399	.1084175
#1	.2341633	.2556139	.0439920	-.000160	237.8796	-.005864	.7982782
#2	.2340578	.2193530	.0433361	-.000443	236.7249	-.004018	.7968019
#3	.2313256	.2558110	.0435979	-.001079	231.4142	.007787	.7983210

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7092116	.0131991	.0059817	-.020003	.0000443	1.060497	.0121760
Stddev	.0303712	.0023666	.0001465	.000299	.0025381	.032756	.0008032
%RSD	4.282396	17.93025	2.449105	1.494464	5723.959	3.088735	6.596608
#1	.6753162	.0145891	.0059590	-.019964	-.000613	1.065257	.0117315
#2	.7339528	.0145418	.0061382	-.019725	-.002100	1.090613	.0116933
#3	.7183659	.0104665	.0058478	-.020319	.002846	1.025622	.0131032

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3414-13 Acquired: 10/23/2025 21:00:30 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.293624	-.008588	-.023615
Stddev	.022645	.001641	.000443
%RSD	.6875530	19.10865	1.878031
#1	3.290622	-.010061	-.023779
#2	3.317620	-.006819	-.023952
#3	3.272629	-.008886	-.023112

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6567.591	89341.29	5776.127	5001.357	7173.598
Stddev	30.373	343.58	17.405	11.781	42.279
%RSD	.4624615	.3845719	.3013203	.2355627	.5893654
#1	6540.068	89151.19	5784.479	4987.899	7138.954
#2	6562.528	89134.76	5787.782	5006.367	7161.131
#3	6600.177	89737.91	5756.121	5009.805	7220.708

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3427-04 Acquired: 10/23/2025 21:04:38 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001381	.0018295	.0026553	.0036107	.0013135	.0409964	.1691209
Stddev	.0004104	.0000254	.0008589	.0038773	.0019858	.0054593	.0007726
%RSD	297.1857	1.386296	32.34694	107.3828	151.1818	13.31651	.4568246
#1	-.000324	.0018025	.0023744	-.000722	-.000421	.0446758	.1689286
#2	.000462	.0018332	.0019720	.004801	.003480	.0347238	.1699715
#3	.000276	.0018528	.0036195	.006753	.000882	.0435895	.1684626

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000023	.0000003	6.657561	.0009215	-.000271	.0095493	.0398000
Stddev	.000022	.0000378	.025299	.0000824	.000066	.0004931	.0100050
%RSD	93.03859	14651.36	.3799984	8.943948	24.37093	5.163642	25.13817
#1	-.000037	-.000042	6.673508	.0008668	-.000235	.0093078	.0410899
#2	-.000034	.000030	6.628392	.0008813	-.000231	.0092234	.0490976
#3	.000002	.000013	6.670785	.0010163	-.000347	.0101165	.0292127

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0456067	.7722121	.0006143	.0005768	282.5415	-.000442	.0461946
Stddev	.0005774	.0146192	.0000813	.0003859	4.1892	.000871	.0003483
%RSD	1.266105	1.893155	13.24100	66.90463	1.482693	197.2582	.7539718
#1	.0461818	.7757751	.0005397	.0009877	287.3759	-.000660	.0462277
#2	.0450270	.7561408	.0006022	.0005209	280.2683	.000518	.0465252
#3	.0456112	.7847205	.0007010	.0002219	279.9802	-.001184	.0458310

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7706610	.0194428	.0003447	-.020374	.0019481	.5550307	.0911901
Stddev	.0665734	.0011474	.0001510	.000502	.0014568	.0087612	.0015508
%RSD	8.638477	5.901639	43.81143	2.463026	74.78393	1.578499	1.700595
#1	.7929924	.0181455	.0001923	-.019907	.0025405	.5509176	.0895881
#2	.8231977	.0203248	.0004943	-.020311	.0002883	.5650916	.0912981
#3	.6957929	.0198580	.0003477	-.020905	.0030153	.5490829	.0926840

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3427-04 Acquired: 10/23/2025 21:04:38 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3087169	-.009652	.0404086
Stddev	.0015880	.000987	.0003762
%RSD	.5144027	10.22834	.9309220
#1	.3069861	-.009727	.0401432
#2	.3101069	-.010600	.0402437
#3	.3090576	-.008630	.0408391

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6713.516	88704.05	5809.222	4968.877	7258.620
Stddev	20.680	306.05	11.720	16.078	28.808
%RSD	.3080301	.3450189	.2017430	.3235697	.3968827
#1	6728.336	88922.36	5800.664	4980.956	7275.473
#2	6689.891	88354.23	5822.580	4950.628	7225.356
#3	6722.322	88835.56	5804.423	4975.047	7275.032

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3427-04DUP Acquired: 10/23/2025 21:08:59 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001620	-.000078	.0025062	.0060373	.0019740	.0431610	.1720936
Stddev	.0010912	.002028	.0016239	.0013796	.0019959	.0220979	.0021925
%RSD	673.4656	2587.391	64.79474	22.85116	101.1100	51.19885	1.273991
#1	.0003914	-.002416	.0015922	.0045754	.0002109	.0566287	.1738878
#2	-.001026	.000960	.0015453	.0062201	.0015702	.0551963	.1727434
#3	.001120	.001221	.0043812	.0073164	.0041408	.0176579	.1696497

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000293	-.000062	6.624376	.0009426	-.000019	.0096983	.0135285
Stddev	.0000271	.000043	.046998	.0003111	.000098	.0001513	.0069153
%RSD	92.48225	70.15464	.7094637	33.00976	512.7581	1.559702	51.11660
#1	.0000156	-.000077	6.665387	.0008724	.000003	.0095272	.0208129
#2	.0000605	-.000013	6.634648	.0006725	.000066	.0098142	.0070536
#3	.0000118	-.000095	6.573092	.0012828	-.000127	.0097536	.0127189

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0439797	.8000016	.0002846	.0000515	285.6858	-.001446	.0448886
Stddev	.0013766	.0110566	.0003017	.0004811	4.8603	.004035	.0001831
%RSD	3.130091	1.382079	106.0181	934.2027	1.701272	279.0942	.4078892
#1	.0446957	.8040623	-.000014	.0005786	291.2693	-.006058	.0450928
#2	.0448508	.8084537	.000279	-.000364	283.3845	.001435	.0447392
#3	.0423926	.7874887	.000589	-.000060	282.4035	.000285	.0448338

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6822711	.0187387	.0006035	-.020496	.0005370	.5619578	.0938675
Stddev	.0117714	.0003104	.0000823	.000685	.0015744	.0138019	.0004039
%RSD	1.725332	1.656669	13.63326	3.340843	293.1928	2.456032	.4302887
#1	.6924036	.0190547	.0006004	-.020636	-.000676	.5513896	.0938207
#2	.6693585	.0187273	.0006872	-.021101	.002316	.5775727	.0942927
#3	.6850513	.0184341	.0005228	-.019753	-.000030	.5569110	.0934889

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3427-04DUP Acquired: 10/23/2025 21:08:59 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3061848	-.011177	.0403472
Stddev	.0044504	.001295	.0003860
%RSD	1.453492	11.58165	.9567878
#1	.3079773	-.012602	.0404352
#2	.3094594	-.010858	.0406817
#3	.3011177	-.010072	.0399248

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6501.992	88320.81	5768.042	4960.320	7026.269
Stddev	17.969	693.89	10.765	35.707	20.885
%RSD	.2763688	.7856505	.1866237	.7198517	.2972392
#1	6511.598	87607.05	5756.312	4919.618	7038.805
#2	6481.261	88992.96	5770.347	4974.969	7002.159
#3	6513.117	88362.42	5777.468	4986.373	7037.842

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3427-04LX5 Acquired: 10/23/2025 21:13:20 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013999	.0049544	.0004083	.0025756	.0021342	.0028655	.0451292
Stddev	.0014769	.0021184	.0012217	.0034145	.0011163	.0063697	.0019617
%RSD	105.4950	42.75875	299.2246	132.5706	52.30403	222.2901	4.346835
#1	.0024713	.0040259	-.000109	.0063074	.0010440	-.003973	.0465552
#2	-.000285	.0034587	-.000470	.0018114	.0020837	.003939	.0459405
#3	.002013	.0073785	.001804	-.000392	.0032748	.008630	.0428921

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000015	-.000049	1.543436	.0001897	-.000010	.0024339	.0061953
Stddev	.000052	.000054	.017450	.0000999	.000219	.0001299	.0086088
%RSD	352.6938	109.9252	1.130573	52.66257	2157.170	5.336924	138.9567
#1	.000005	-.000069	1.554144	.0002972	-.000183	.0024585	.0137518
#2	.000024	-.000090	1.552863	.0000998	.000236	.0025497	-.003176
#3	-.000074	.000012	1.523300	.0001720	-.000083	.0022935	.008010

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0109015	.1820914	-.000125	.0003912	65.79127	-.004395	.0098156
Stddev	.0004255	.0163428	.000138	.0006460	.44206	.003262	.0001842
%RSD	3.902696	8.975077	110.7403	165.1544	.6719096	74.22197	1.876868
#1	.0106690	.1994258	-.000231	.0008288	65.48649	-.001303	.0098037
#2	.0113926	.1798841	-.000175	.0006955	66.29827	-.004078	.0100055
#3	.0106430	.1669644	.000031	-.000351	65.58906	-.007804	.0096376

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.343364	-.004222	.0001467	-.007067	.0002423	.1306436	.0168691
Stddev	.125007	.000248	.0000272	.000326	.0020147	.0119609	.0005739
%RSD	9.305486	5.881169	18.55396	4.614142	831.5254	9.155397	3.402045
#1	1.205083	-.004399	.0001179	-.007119	-.001027	.1315902	.0169807
#2	1.376652	-.003938	.0001721	-.006717	-.000812	.1182375	.0173790
#3	1.448357	-.004328	.0001500	-.007363	.002565	.1421031	.0162476

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3427-04LX5 Acquired: 10/23/2025 21:13:20 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0924085	.0302119	.0092626
Stddev	.0034416	.0006531	.0002423
%RSD	3.724356	2.161767	2.616146
#1	.0953631	.0306338	.0094824
#2	.0932328	.0294596	.0093026
#3	.0886295	.0305422	.0090027

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6492.971	90040.27	5610.456	5076.415	7270.143
Stddev	15.294	385.90	62.065	15.704	26.761
%RSD	.2355470	.4285912	1.106240	.3093584	.3680927
#1	6481.411	90462.48	5554.479	5089.794	7263.422
#2	6487.189	89705.76	5599.688	5059.124	7247.383
#3	6510.313	89952.58	5677.200	5080.326	7299.624

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3427-04MS Acquired: 10/23/2025 21:17:34 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7983516**	**1.681345**	**.9478960**	**1.972033**	**.7884376**	**1.921366**	**.4058157**
Stddev	.0036455	.050570	.0021089	.007817	.0028398	.020540	.0034166
%RSD	.4566306	3.007691	.2224786	.3964010	.3601840	1.069038	.8419104
#1	.8025107	1.680492	.9477213	1.963009	.7861795	1.943774	.4097555
#2	.7968341	1.631207	.9500869	1.976734	.7916258	1.903432	.4040247
#3	.7957099	1.732335	.9458800	1.976356	.7875073	1.916891	.4036670

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1911904**	**.1989347**	**9.333323**	**.3773827**	**.1961590**	**.3021742**	**2.878421**
Stddev	.0021015	.0002799	.076826	.0022278	.0005936	.0012095	.035457
%RSD	1.099153	.1406949	.8231350	.5903304	.3026143	.4002593	1.231812
#1	.1899267	.1989198	9.421677	.3748235	.1960436	.3017592	2.892840
#2	.1900283	.1992218	9.282264	.3784365	.1968018	.3035366	2.904396
#3	.1936163	.1986626	9.296028	.3788880	.1956315	.3012270	2.838026

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2612042**	**2.949479**	**.4935479**	**.0695986**	**357.1177**	**.2887662**	**.2566141**
Stddev	.0023771	.068432	.0008746	.0008557	3.8900	.0031848	.0009057
%RSD	.9100404	2.320122	.1772004	1.229452	1.089273	1.102917	.3529303
#1	.2638852	2.990991	.4930053	.0690113	352.7504	.2923408	.2557689
#2	.2593541	2.870495	.4945568	.0692041	360.2109	.2862305	.2575701
#3	.2603732	2.986950	.4930816	.0705804	358.3916	.2877274	.2565033

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**10.79420**	**.3130030**	**.4150615**	**.7145166**	**.1968810**	**1.514097**	**6.410831**
Stddev	.16309	.0043049	.0008088	.0011449	.0017854	.041750	.007441
%RSD	1.510933	1.375342	.1948526	.1602285	.9068634	2.757401	.1160761
#1	10.93053	.3100909	.4150373	.7145409	.1987479	1.560354	6.402645
#2	10.83854	.3109703	.4158821	.7156491	.1951901	1.479209	6.412663
#3	10.61352	.3179478	.4142651	.7133597	.1967051	1.502729	6.417186

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3427-04MS Acquired: 10/23/2025 21:17:34 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3792948	.1753802	.2347133
Stddev	.0035760	.0021805	.0010513
%RSD	.9427882	1.243285	.4479140
#1	.3795212	.1778817	.2357579
#2	.3756110	.1743765	.2347266
#3	.3827522	.1738822	.2336554

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6320.680	85617.73	5381.499	4919.448	6724.838
Stddev	19.617	337.57	62.371	29.545	11.895
%RSD	.3103694	.3942798	1.158994	.6005724	.1768849
#1	6309.216	85888.44	5433.175	4951.317	6715.575
#2	6309.493	85239.49	5399.104	4892.969	6720.687
#3	6343.332	85725.26	5312.217	4914.058	6738.253

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3427-04MSD Acquired: 10/23/2025 21:21:43 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8260152	1.680011	.9821122	2.051332	.7756263	2.128063	.3921923
Stddev	.0015726	.113418	.0024932	.004351	.0048166	.009795	.0028756
%RSD	.1903823	6.751054	.2538635	.2121030	.6209968	.4602989	.7331991
#1	.8257888	1.567804	.9842981	2.052785	.7810717	2.139284	.3948468
#2	.8245681	1.677627	.9826417	2.046440	.7738837	2.123683	.3891376
#3	.8276887	1.794603	.9793967	2.054770	.7719235	2.121222	.3925924

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1961077	.2066388	8.966170	.3920913	.2035710	.3130889	2.915241
Stddev	.0015903	.0004840	.042798	.0014468	.0001862	.0011033	.008720
%RSD	.8109537	.2342409	.4773220	.3690037	.0914604	.3523832	.2991133
#1	.1978843	.2070349	9.008695	.3905653	.2035942	.3142106	2.905286
#2	.1956219	.2067823	8.923106	.3922655	.2037444	.3130511	2.918912
#3	.1948170	.2060993	8.966708	.3934432	.2033743	.3120051	2.921526

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2534990	2.948953	.5129167	.0713970	328.7360	.2933267	.2620560
Stddev	.0003560	.034390	.0013296	.0007217	1.8542	.0060373	.0016864
%RSD	.1404193	1.166191	.2592158	1.010755	.5640435	2.058210	.6435190
#1	.2534310	2.982973	.5132622	.0705651	330.2620	.2991305	.2601225
#2	.2531819	2.949680	.5140394	.0717712	329.2736	.2937693	.2632229
#3	.2538840	2.914204	.5114485	.0718548	326.6724	.2870803	.2628226

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	10.76012	.3183257	.4087956	.7008157	.1879975	1.457055	6.539370
Stddev	.05417	.0040738	.0004159	.0012633	.0016448	.036382	.005690
%RSD	.5034708	1.279743	.1017295	.1802670	.8749019	2.496929	.0870131
#1	10.70841	.3224098	.4089267	.6994223	.1894681	1.422570	6.535968
#2	10.75550	.3183048	.4091301	.7018863	.1862214	1.495075	6.536202
#3	10.81646	.3142624	.4083300	.7011384	.1883030	1.453519	6.545939

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3427-04MSD Acquired: 10/23/2025 21:21:43 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.3709783	.1700564	.2327796
Stddev	.0008128	.0012893	.0011030
%RSD	.2190827	.7581772	.4738219
#1	.3704214	.1692302	.2339781
#2	.3706026	.1715421	.2325536
#3	.3719109	.1693970	.2318072

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6368.079	86766.57	5489.376	4946.735	6786.718
Stddev	10.315	332.88	68.983	38.706	6.931
%RSD	.1619810	.3836520	1.256664	.7824517	.1021220
#1	6356.222	86578.82	5411.881	4958.063	6779.740
#2	6373.032	87150.91	5544.077	4978.514	6786.815
#3	6374.983	86569.97	5512.171	4903.630	6793.600

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3427-04A Acquired: 10/23/2025 21:25:54 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7840597	1.690946	.9451158	1.960798	.7384449	1.876622	.3337437
Stddev	.0064510	.035927	.0027300	.005659	.0068023	.010280	.0025166
%RSD	.8227758	2.124678	.2888497	.2886177	.9211644	.5477786	.7540416
#1	.7891337	1.658360	.9475178	1.967005	.7434738	1.864752	.3366471
#2	.7862457	1.729474	.9456826	1.959466	.7411557	1.882572	.3323956
#3	.7767997	1.685005	.9421469	1.955924	.7307051	1.882542	.3321883

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1863554	.1978313	7.301356	.3755996	.1939509	.2980326	2.724485
Stddev	.0004980	.0004026	.014135	.0007312	.0003792	.0013369	.024853
%RSD	.2672488	.2035295	.1935875	.1946791	.1955164	.4485795	.9122186
#1	.1866255	.1982380	7.288400	.3748657	.1941850	.2988142	2.727011
#2	.1866600	.1978231	7.299240	.3756050	.1941544	.2987946	2.698465
#3	.1857806	.1974328	7.316430	.3763281	.1935134	.2964889	2.747978

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2280375	2.686216	.4903834	.0676157	262.2435	.2845663	.2406574
Stddev	.0017392	.037420	.0021231	.0017379	3.0253	.0009649	.0013122
%RSD	.7626841	1.393036	.4329581	2.570320	1.153625	.3390828	.5452527
#1	.2279879	2.646308	.4918240	.0659378	259.1944	.2848283	.2415292
#2	.2263236	2.720514	.4913810	.0675012	265.2445	.2834974	.2412946
#3	.2298009	2.691826	.4879451	.0694080	262.2916	.2853731	.2391482

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.848026	.2977416	.3933340	.6700195	.1758486	1.325605	6.130092
Stddev	.140933	.0006179	.0015794	.0033952	.0006614	.021326	.010169
%RSD	1.431078	.2075400	.4015329	.5067297	.3761173	1.608797	.1658880
#1	9.842418	.2970344	.3945229	.6724623	.1763265	1.350161	6.129405
#2	9.709981	.2980135	.3939372	.6714537	.1750938	1.314919	6.140588
#3	9.991679	.2981770	.3915420	.6661426	.1761256	1.311733	6.120284

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3427-04A Acquired: 10/23/2025 21:25:54 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2777526	.1626369	.2113860
Stddev	.0037017	.0032219	.0004378
%RSD	1.332740	1.981046	.2070889
#1	.2762644	.1617413	.2115304
#2	.2819668	.1599574	.2108942
#3	.2750265	.1662118	.2117332

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6749.842	93112.24	5869.326	5246.581	7243.626
Stddev	19.077	435.02	2.837	9.770	11.601
%RSD	.2826361	.4671951	.0483339	.1862091	.1601497
#1	6729.711	93396.81	5872.074	5253.338	7230.574
#2	6752.160	93328.42	5866.408	5235.380	7247.545
#3	6767.654	92611.48	5869.497	5251.027	7252.760

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCV10 Acquired: 10/23/2025 21:30:03 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV10 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.006505**	**4.825711**	**5.109855**	**5.043272**	**4.818389**	**9.717856**
Stddev	.016659	.203016	.012065	.021909	.012897	.056959
%RSD	.3327392	4.206967	.2361080	.4344275	.2676699	.5861274
#1	5.011612	4.641345	5.105641	5.040197	4.824420	9.765836
#2	5.020012	5.043283	5.123462	5.066556	4.827165	9.654908
#3	4.987891	4.792505	5.100463	5.023062	4.803580	9.732824

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.493026**	**.2537055**	**2.566560**	**24.72127**	**.9621992**	**2.489593**
Stddev	.041659	.0036924	.005358	.09541	.0045917	.004910
%RSD	.4388411	1.455402	.2087433	.3859260	.4772048	.1972343
#1	9.531281	.2579320	2.566389	24.80548	.9664876	2.489977
#2	9.448641	.2520784	2.572001	24.61765	.9573549	2.494300
#3	9.499155	.2511060	2.561290	24.74068	.9627551	2.484502

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.249546**	**4.662898**	**2.426785**	**25.38708**	**2.512770**	**1.276364**
Stddev	.003219	.044875	.016893	.11933	.003714	.002591
%RSD	.2576353	.9623836	.6961263	.4700567	.1477982	.2029767
#1	1.251396	4.626492	2.441720	25.52475	2.513914	1.279144
#2	1.251413	4.649168	2.408450	25.31308	2.515778	1.274017
#3	1.245828	4.713034	2.430185	25.32342	2.508619	1.275932

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**23.72744**	**2.463997**	**2.530480**	**24.36363**	F **5.610273**	**4.926057**
Stddev	.04156	.009061	.006500	.26379	.086141	.018907
%RSD	.1751519	.3677450	.2568757	1.082733	1.535416	.3838136
#1	23.73534	2.472732	2.530457	24.06978	5.709708	4.933507
#2	23.68250	2.454641	2.523991	24.44109	5.562736	4.940104
#3	23.76448	2.464618	2.536991	24.58001	5.558375	4.904560

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCV10 Acquired: 10/23/2025 21:30:03 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV10 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.099184**	**4.812599**	**4.646703**	**5.332318**	**4.981369**	**4.564194**
Stddev	.019861	.017653	.057765	.027039	.038468	.018818
%RSD	.3894998	.3668115	1.243134	.5070739	.7722384	.4122894
#1	5.100853	4.827105	4.583656	5.320895	4.957078	4.579399
#2	5.118158	4.792944	4.659369	5.363193	5.025721	4.543148
#3	5.078540	4.817748	4.697083	5.312865	4.961309	4.570034

Elem	Sr4077
Units	ppm
Avg	**4.737757**
Stddev	.126485
%RSD	2.669715
#1	4.804609
#2	4.591875
#3	4.816788

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6613.136**	**89169.19**	**5488.568**	**4947.113**	**7116.155**
Stddev	21.362	316.72	76.492	9.363	17.311
%RSD	.3230250	.3551952	1.393653	.1892659	.2432581
#1	6599.856	88911.29	5400.316	4954.361	7110.555
#2	6601.774	89522.71	5535.811	4950.436	7102.337
#3	6637.778	89073.57	5529.576	4936.541	7135.572

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCB10 Acquired: 10/23/2025 21:34:06 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB10 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0015793**	**.0030363**	**.0004019**	**.0017174**	**.0020194**	**-.005936**
Stddev	.0004162	.0015261	.0006122	.0024019	.0013477	.004562
%RSD	26.34939	50.26298	152.3147	139.8572	66.73636	76.85231
#1	.0013583	.0047985	.0004705	.0039789	.0023254	-.004657
#2	.0020594	.0021426	.0009770	-.000804	.0005450	-.002150
#3	.0013204	.0021679	-.000242	.001977	.0031878	-.011000

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0096331**	**.0000354**	**-.000044**	**-.002540**	**.0001320**	**.0000516**
Stddev	.0011243	.0001587	.000095	.009435	.0002325	.0000426
%RSD	11.67106	448.1519	216.9809	371.4122	176.2084	82.50258
#1	.0092249	-.000136	.000026	-.003524	.0001407	.0000249
#2	.0109045	.000177	-.000152	-.011445	-.000105	.0000292
#3	.0087700	.000066	-.000006	.007348	.000360	.0001007

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0000271**	**-.003795**	**-.000004**	**-.023801**	**-.000154**	**-.000213**
Stddev	.0005663	.012429	.000674	.014429	.000216	.000259
%RSD	2088.273	327.5064	18269.20	60.62349	140.6569	121.7208
#1	-.000140	-.008726	.000006	-.025247	.000094	-.000472
#2	.000658	.010343	.000665	-.037451	-.000304	-.000213
#3	-.000437	-.013002	-.000682	-.008703	-.000252	.000046

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **1.016998**	**.0003215**	**.0000207**	F **1.007121**	**-.000216**	**.0003494**
Stddev	.067981	.0034118	.0001976	.088118	.000310	.0002535
%RSD	6.684451	1061.059	955.9905	8.749506	143.4999	72.53019
#1	.941148	.0019124	.0002252	.952923	.000052	.0004044
#2	1.037418	-.003595	-.000169	.959642	-.000144	.0005709
#3	1.072429	.002647	.000006	1.108797	-.000556	.0000730

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCB10 Acquired: 10/23/2025 21:34:06 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB10 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.006258**	**-.000416**	**.0027100**	**-.003954**	F **.0142628**	F **.0190451**
Stddev	.000398	.001389	.0106578	.000866	.0024892	.0010474
%RSD	6.354903	333.5734	393.2759	21.89499	17.45251	5.499526
#1	-.005812	-.001586	-.005110	-.002955	.0158711	.0180676
#2	-.006576	-.000783	.014850	-.004454	.0113956	.0189171
#3	-.006386	.001119	-.001609	-.004454	.0155217	.0201506

Elem	Sr4077
Units	ppm
Avg	**.0000812**
Stddev	.0001164
%RSD	143.2914
#1	-.000053
#2	.000158
#3	.000139

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6665.617**	**92302.34**	**5412.627**	**5134.301**	**7972.800**
Stddev	8.831	392.09	11.499	15.818	16.759
%RSD	.1324901	.4247915	.2124504	.3080786	.2101982
#1	6664.554	92521.94	5407.438	5143.081	7959.913
#2	6657.365	92535.43	5404.637	5143.780	7966.741
#3	6674.932	91849.66	5425.807	5116.040	7991.746

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170225BL Acquired: 10/23/2025 21:38:19 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0014030**	**.0039678**	**.0006724**	**.0034672**	**.0020160**	**-.021605**
Stddev	.0020316	.0026490	.0012855	.0028578	.0024637	.007537
%RSD	144.8100	66.76403	191.1899	82.42502	122.2060	34.88530
#1	.0028754	.0019810	-.000387	.0066453	-.000609	-.021339
#2	.0022483	.0069753	.000302	.0011086	.002380	-.014204
#3	-.000915	.0029470	.002102	.0026477	.004277	-.029271

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0081445**	**.0000997**	**-.000092**	**-.008642**	**.0000448**	**-.000073**
Stddev	.0002851	.0000237	.000017	.007197	.0003100	.000061
%RSD	3.500520	23.79020	18.52254	83.27224	691.2183	82.98602
#1	.0080494	.0001261	-.000074	-.011797	.0001153	-.000101
#2	.0084650	.0000932	-.000094	-.000407	-.000294	-.000116
#3	.0079191	.0000800	-.000108	-.013722	.000314	-.000004

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000167**	**-.004651**	**-.000017**	**-.040692**	**-.000300**	**-.000198**
Stddev	.000320	.008820	.000992	.048137	.000200	.000246
%RSD	191.8041	189.6541	5695.086	118.2962	66.69332	124.6393
#1	-.000520	-.014605	.000948	.014692	-.000107	-.000227
#2	-.000083	.002191	.000033	-.072461	-.000506	.000062
#3	.000103	-.001537	-.001034	-.064306	-.000287	-.000428

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.6093271**	**-.000664**	**-.000273**	**.6527595**	**-.005999**	**.0000853**
Stddev	.0375813	.005142	.000027	.0180475	.000745	.0003403
%RSD	6.167667	774.2202	9.752767	2.764802	12.41716	398.7253
#1	.5718555	-.006421	-.000261	.6507383	-.005626	-.000043
#2	.6091086	.000957	-.000255	.6358077	-.005515	-.000172
#3	.6470171	.003472	-.000304	.6717325	-.006857	.000471

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170225BL Acquired: 10/23/2025 21:38:19 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005851	-.001178	.0262507	-.003813	F .0149079	.0076582
Stddev	.000122	.002719	.0167166	.000696	.0004753	.0019011
%RSD	2.091390	230.8199	63.68038	18.24929	3.188178	24.82465
#1	-.005991	.001185	.0131762	-.003108	.0153223	.0068667
#2	-.005768	-.000570	.0450858	-.003831	.0150123	.0098272
#3	-.005793	-.004149	.0204902	-.004499	.0143890	.0062807

Elem	Sr4077
Units	ppm
Avg	-.000249
Stddev	.000182
%RSD	73.08858
#1	-.000108
#2	-.000454
#3	-.000184

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6741.578	92316.38	5472.177	5146.073	8057.973
Stddev	8.303	668.32	17.840	19.391	21.043
%RSD	.1231547	.7239468	.3260084	.3768059	.2611499
#1	6735.328	92183.67	5472.929	5131.630	8041.431
#2	6750.998	93041.10	5453.973	5168.112	8081.658
#3	6738.406	91724.37	5489.629	5138.477	8050.829

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170225BS Acquired: 10/23/2025 21:42:33 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.7718903**	**1.753476**	**.9500528**	**1.932087**	**.7696221**	**1.848597**
Stddev	.0018535	.040742	.0008004	.006857	.0012065	.009195
%RSD	.2401276	2.323524	.0842454	.3549255	.1567707	.4974018
#1	.7717403	1.799393	.9493114	1.936217	.7690864	1.851643
#2	.7738143	1.721648	.9509014	1.924172	.7687762	1.838266
#3	.7701164	1.739387	.9499457	1.935874	.7710037	1.855883

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1836651**	**.2076023**	**.1890495**	**.9727898**	**.3701113**	**.1902879**
Stddev	.0044188	.0004289	.0000902	.0048522	.0001908	.0001800
%RSD	2.405915	.2066136	.0477153	.4987891	.0515510	.0946046
#1	.1858648	.2072631	.1891040	.9770105	.3699834	.1902488
#2	.1865524	.2080845	.1890991	.9738704	.3703306	.1904842
#3	.1785781	.2074594	.1889454	.9674884	.3700199	.1901306

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.3029205**	**2.602912**	**.1943475**	**1.998222**	**.4786104**	**.0716761**
Stddev	.0006404	.019902	.0008287	.016111	.0006571	.0008061
%RSD	.2113917	.7645921	.4263805	.8062852	.1372953	1.124683
#1	.3022392	2.625477	.1938837	2.000612	.4780864	.0716412
#2	.3035100	2.587860	.1953042	2.013005	.4783972	.0708880
#3	.3030122	2.595401	.1938546	1.981049	.4793477	.0724992

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**2.798436**	**.2806480**	**.1991396**	**8.777918**	**.3293840**	**.3866805**
Stddev	.014155	.0020931	.0014028	.060942	.0013720	.0005904
%RSD	.5058021	.7457971	.7044389	.6942685	.4165253	.1526951
#1	2.784381	.2816054	.2006981	8.810163	.3282185	.3871296
#2	2.812688	.2782475	.1979779	8.707627	.3308960	.3860117
#3	2.798238	.2820912	.1987429	8.815963	.3290374	.3869001

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: PB170225BS Acquired: 10/23/2025 21:42:33 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6703522	.1852662	.7626297	5.835850	F .0115700	.1888692
Stddev	.0007746	.0026357	.0110770	.027417	.0021093	.0021686
%RSD	.1155441	1.422672	1.452477	.4698075	18.23105	1.148218
#1	.6707628	.1837518	.7650396	5.839897	.0119187	.1871078
#2	.6694587	.1837372	.7723034	5.806635	.0134831	.1912913
#3	.6708349	.1883097	.7505461	5.861019	.0093080	.1882084

Elem	Sr4077
Units	ppm
Avg	.1821114
Stddev	.0008461
%RSD	.4646229
#1	.1824918
#2	.1827005
#3	.1811418

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6764.183	93278.68	5402.104	5302.974	7752.452
Stddev	8.176	223.74	16.812	20.294	7.151
%RSD	.1208697	.2398644	.3112171	.3826970	.0922358
#1	6772.377	93525.33	5421.038	5289.899	7756.143
#2	6756.025	93221.93	5396.351	5326.353	7744.211
#3	6764.148	93088.77	5388.923	5292.669	7757.004

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3417-01 Acquired: 10/23/2025 21:46:34 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4009329	-.742825	-.054122	.8842752	.2040661	.5166022	-.017316
Stddev	.0039371	.019685	.000397	.0022177	.0051091	.0100186	.001131
%RSD	.9819790	2.649955	.7331337	.2507914	2.503666	1.939327	6.532526
#1	.3964487	-.750454	-.054080	.8853633	.2099585	.5244234	-.017313
#2	.4038226	-.720468	-.054538	.8817236	.2013700	.5053096	-.016187
#3	.4025274	-.757554	-.053748	.8857386	.2008697	.5200738	-.018449

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027653	-.000265	2.905974	.0012808	.0111937	.0397034	29.93634
Stddev	.0000404	.000034	.019825	.0001366	.0000986	.0007679	.17897
%RSD	1.459415	12.81216	.6822025	10.66748	.8812799	1.934150	.5978454
#1	.0028105	-.000238	2.922708	.0011466	.0110856	.0388754	30.11140
#2	.0027328	-.000303	2.884079	.0012760	.0112789	.0398427	29.75370
#3	.0027527	-.000253	2.911134	.0014197	.0112166	.0403922	29.94393

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6212994	.4862173	.0266102	-.000504	13.08633	-.000971	.1742641
Stddev	.0032354	.0186230	.0003745	.000131	.11806	.000428	.0006202
%RSD	.5207508	3.830174	1.407264	26.01005	.9021427	44.11179	.3559141
#1	.6233709	.4674391	.0264361	-.000363	13.21327	-.001118	.1749489
#2	.6175711	.4865317	.0263546	-.000621	13.06588	-.001306	.1737400
#3	.6229562	.5046810	.0270401	-.000527	12.97983	-.000488	.1741035

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	37.48331	.1508930	.0041333	.2511212	.0025485	.6707952	3.140088
Stddev	.19251	.0005970	.0001817	.0012570	.0031126	.0305208	.015825
%RSD	.5135980	.3956354	4.395914	.5005534	122.1312	4.549948	.5039825
#1	37.70558	.1506568	.0042095	.2500467	.0038917	.7057259	3.128389
#2	37.36932	.1504502	.0039260	.2525035	-.001010	.6492795	3.133781
#3	37.37504	.1515719	.0042646	.2508133	.004764	.6573801	3.158095

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3417-01 Acquired: 10/23/2025 21:46:34 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	**8.173823**	**-.005931**	**-.018992**
Stddev	.052413	.003482	.000260
%RSD	.6412356	58.71714	1.367194
#1	8.159795	-.004690	-.019210
#2	8.129851	-.003239	-.018705
#3	8.231823	-.009863	-.019060

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6362.615**	**85594.83**	**5674.807**	**5018.774**	**7367.527**
Stddev	19.704	626.76	34.452	62.716	24.126
%RSD	.3096867	.7322365	.6070981	1.249636	.3274668
#1	6385.270	84871.93	5635.796	4947.395	7395.025
#2	6353.113	85926.49	5701.059	5043.872	7357.645
#3	6349.463	85986.06	5687.568	5065.054	7349.910

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3420-05 Acquired: 10/23/2025 21:50:33 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1093912	.0046261	.0033770	1.035645	.0070462	4.724854
Stddev	.0017880	.0029330	.0017865	.009296	.0018342	.021225
%RSD	1.634486	63.40186	52.90219	.8975607	26.03094	.4492247
#1	.1109287	.0047757	.0053527	1.046065	.0078842	4.748628
#2	.1098157	.0074815	.0029032	1.028205	.0083116	4.707808
#3	.1074291	.0016211	.0018752	1.032664	.0049426	4.718127

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0141942	.0000403	.0004740	1.977061	.0340575	.0027011
Stddev	.0020253	.0000511	.0000943	.011998	.0006501	.0003149
%RSD	14.26830	126.8481	19.90257	.6068824	1.908938	11.65993
#1	.0157790	-.000010	.0005818	1.990799	.0337745	.0030471
#2	.0148910	.000092	.0004331	1.968638	.0348012	.0026248
#3	.0119125	.000039	.0004070	1.971745	.0335969	.0024312

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0165222	1.022112	.0213814	1.501897	.0340263	.0017840
Stddev	.0003386	.017797	.0007682	.074587	.0002606	.0005430
%RSD	2.049112	1.741182	3.592604	4.966170	.7657654	30.43578
#1	.0161457	1.014596	.0221276	1.422304	.0341379	.0016618
#2	.0166195	1.042434	.0205931	1.570188	.0337285	.0013125
#3	.0168015	1.009307	.0214236	1.513200	.0342124	.0023777

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 5731.994	.0035423	.5582056	36.74165	F 13.69936	.0526533
Stddev	96.364	.0030186	.0019157	3.82434	.11034	.0009533
%RSD	1.681153	85.21731	.3431975	10.40872	.8054569	1.810597
#1	5822.521	.0004197	.5562408	32.68554	13.82622	.0523476
#2	5742.764	.0037622	.5583078	37.25760	13.62568	.0518903
#3	5630.698	.0064449	.5600683	40.28182	13.64619	.0537220

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3420-05 Acquired: 10/23/2025 21:50:33 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.014456	.1115517	F 27.67466	.3267761	F 1747.521	.0262541
Stddev	.000636	.0201877	.16286	.0025231	13.107	.0045747
%RSD	4.397772	18.09715	.5884803	.7721226	.7500512	17.42465
#1	-.014532	.1047752	27.83416	.3270741	1755.613	.0209992
#2	-.015050	.0956241	27.50863	.3241173	1754.551	.0293475
#3	-.013786	.1342558	27.68120	.3291371	1732.398	.0284156

Elem	Sr4077
Units	ppm
Avg	.0182643
Stddev	.0001168
%RSD	.6394354
#1	.0182173
#2	.0181784
#3	.0183973

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4769.942	65614.27	5530.898	3659.101	4600.602
Stddev	28.048	722.80	74.797	23.761	29.038
%RSD	.5880192	1.101587	1.352354	.6493694	.6311680
#1	4761.518	65435.74	5461.178	3655.685	4590.437
#2	4801.237	64997.46	5521.612	3637.232	4633.355
#3	4747.072	66409.60	5609.905	3684.385	4578.014

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3420-05DUP Acquired: 10/23/2025 21:55:03 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1135342	.0112915	.0033140	1.052920	.0101818	5.013305
Stddev	.0042293	.0033399	.0005498	.013291	.0024304	.019671
%RSD	3.725175	29.57879	16.59011	1.262332	23.87027	.3923725
#1	.1114437	.0111880	.0027798	1.053112	.0089397	4.990715
#2	.1107572	.0080046	.0032841	1.039533	.0086235	5.022553
#3	.1184017	.0146819	.0038781	1.066114	.0129823	5.026648

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0159391	.0001645	.0005112	2.100816	.0366904	.0028113
Stddev	.0034206	.0000280	.0000661	.018545	.0008138	.0002471
%RSD	21.46019	17.01541	12.93712	.8827567	2.218160	8.787655
#1	.0196875	.0001786	.0004963	2.095061	.0373508	.0029432
#2	.0151430	.0001827	.0004539	2.085831	.0369393	.0025263
#3	.0129868	.0001323	.0005836	2.121557	.0357812	.0029645

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0175492	1.122793	.0231289	1.575468	.0356892	.0022731
Stddev	.0004968	.012662	.0004836	.026279	.0009237	.0007728
%RSD	2.830689	1.127703	2.091066	1.668007	2.588108	33.99852
#1	.0169856	1.108302	.0230222	1.595341	.0349881	.0022563
#2	.0177387	1.131718	.0236570	1.585392	.0353437	.0030543
#3	.0179234	1.128359	.0227076	1.545673	.0367358	.0015089

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 5506.415	.0053450	.5808013	69.79438	F 13.91255	.0546354
Stddev	111.100	.0012374	.0004673	3.57856	.16068	.0014678
%RSD	2.017650	23.15123	.0804620	5.127284	1.154943	2.686622
#1	5634.313	.0049745	.5811212	65.84197	14.09799	.0545741
#2	5451.124	.0067254	.5810177	70.72659	13.81461	.0531992
#3	5433.809	.0043352	.5802650	72.81458	13.82505	.0561329

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3420-05DUP Acquired: 10/23/2025 21:55:03 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.015435	.1007348	F 33.66626	.3433124	F 1870.979	.0415231
Stddev	.000696	.0004985	.95233	.0076384	65.197	.0052202
%RSD	4.506822	.4948947	2.828724	2.224902	3.484622	12.57173
#1	-.016163	.1007765	32.60010	.3404538	1863.341	.0356824
#2	-.015364	.1002168	33.96612	.3375156	1809.938	.0457337
#3	-.014777	.1012112	34.43257	.3519677	1939.659	.0431532

Elem	Sr4077
Units	ppm
Avg	.0190619
Stddev	.0000431
%RSD	.2260284
#1	.0190162
#2	.0190677
#3	.0191018

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4588.743	62348.42	5415.236	3482.666	4422.360
Stddev	113.319	412.14	73.414	23.206	112.840
%RSD	2.469507	.6610346	1.355692	.6663291	2.551571
#1	4620.032	62283.63	5332.275	3455.907	4460.327
#2	4683.130	61972.50	5441.628	3494.823	4511.320
#3	4463.066	62789.12	5471.805	3497.268	4295.434

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3420-05LX5 Acquired: 10/23/2025 21:59:32 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0217924**	**.0093110**	**.0001697**	**.1892004**	**.0046364**	**.8998312**
Stddev	.0008564	.0004069	.0003822	.0015731	.0019991	.0030482
%RSD	3.929894	4.369672	225.2348	.8314179	43.11671	.3387541
#1	.0227644	.0090898	.0003164	.1876940	.0041382	.8964875
#2	.0214640	.0090627	-.000264	.1908325	.0068375	.9005513
#3	.0211488	.0097805	.000457	.1890748	.0029336	.9024549

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0107487**	**.0001515**	**-.000012**	**.4179054**	**.0074673**	**.0005994**
Stddev	.0007124	.0000822	.000023	.0116189	.0004986	.0001521
%RSD	6.627388	54.22021	192.4476	2.780264	6.676931	25.37907
#1	.0106126	.0000590	-.000009	.4085228	.0072160	.0004273
#2	.0115193	.0001798	-.000037	.4309017	.0080415	.0007160
#3	.0101142	.0002158	.000010	.4142917	.0071443	.0006547

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0038302**	**.1773965**	**.0038167**	**.3350432**	**.0071937**	**.0004817**
Stddev	.0000812	.0039710	.0006561	.0216185	.0003976	.0001852
%RSD	2.120037	2.238481	17.18899	6.452447	5.527248	38.44896
#1	.0038379	.1728112	.0030667	.3120467	.0073027	.0006021
#2	.0037454	.1797057	.0040992	.3549515	.0067529	.0005746
#3	.0039073	.1796725	.0042841	.3381316	.0075254	.0002684

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1694.803**	**-.001232**	**.1010266**	**22.02225**	**3.478153**	**.0103847**
Stddev	17.699	.003931	.0002783	.99725	.037046	.0002517
%RSD	1.044339	319.1601	.2754462	4.528358	1.065094	2.423675
#1	1707.452	.003207	.1010020	21.02843	3.513373	.0100959
#2	1674.576	-.002630	.1013163	22.01544	3.481569	.0105012
#3	1702.380	-.004273	.1007614	23.02289	3.439518	.0105571

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3420-05LX5 Acquired: 10/23/2025 21:59:32 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006714	.0163101	F 10.13097	.0554945	F 528.1631	.0550553
Stddev	.000612	.0005844	.17272	.0002995	4.9664	.0026339
%RSD	9.111866	3.583232	1.704842	.5397700	.9403078	4.784071
#1	-.006425	.0168300	10.31224	.0556492	522.5097	.0522249
#2	-.007417	.0164227	10.11235	.0556851	530.1563	.0574343
#3	-.006300	.0156775	9.96831	.0551493	531.8231	.0555067

Elem	Sr4077
Units	ppm
Avg	.0036114
Stddev	.0001697
%RSD	4.698841
#1	.0035180
#2	.0035088
#3	.0038072

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6111.008	80212.35	5689.590	4716.988	6121.646
Stddev	27.078	676.78	22.514	38.529	24.403
%RSD	.4430940	.8437372	.3957085	.8168034	.3986314
#1	6141.744	80986.82	5697.593	4761.044	6149.454
#2	6100.606	79915.52	5664.168	4689.600	6111.687
#3	6090.674	79734.70	5707.010	4700.320	6103.799

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3420-05MS Acquired: 10/23/2025 22:03:49 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.014862**	**1.658886**	**.9456926**	**3.361223**	**.8519581**	**5.111729**
Stddev	.011884	.094870	.0099313	.040636	.0113972	.024933
%RSD	1.170970	5.718909	1.050163	1.208964	1.337768	.4877609
#1	1.027468	1.759723	.9552378	3.407234	.8623439	5.117006
#2	1.013256	1.571396	.9464243	3.346183	.8537651	5.084580
#3	1.003864	1.645538	.9354157	3.330250	.8397653	5.133601

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2001938**	**.1708858**	**.2117525**	**2.699802**	**.4013116**	**.2037746**
Stddev	.0035776	.0033674	.0024567	.032988	.0012519	.0022191
%RSD	1.787055	1.970570	1.160189	1.221871	.3119496	1.089007
#1	.2042254	.1701762	.2144118	2.735498	.4027457	.2061088
#2	.1973977	.1679297	.2112780	2.670441	.4004376	.2035230
#3	.1989585	.1745515	.2095676	2.693467	.4007513	.2016920

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2835522**	**4.403512**	**.2024456**	**3.282504**	**.5413322**	**.0892305**
Stddev	.0032628	.072415	.0021354	.073704	.0066573	.0003516
%RSD	1.150697	1.644479	1.054784	2.245362	1.229804	.3939760
#1	.2870942	4.480109	.2047839	3.330239	.5474739	.0888860
#2	.2828931	4.394259	.2005988	3.197617	.5422651	.0895887
#3	.2806692	4.336169	.2019542	3.319655	.5342576	.0892167

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **5442.616**	**.2848038**	**.7728953**	**78.98297**	F **14.08696**	**.4431910**
Stddev	30.871	.0051691	.0040461	1.81950	.27878	.0049205
%RSD	.5672116	1.814973	.5235026	2.303665	1.979027	1.110252
#1	5476.596	.2866146	.7731470	76.92561	14.03934	.4483775
#2	5434.957	.2789729	.7687291	79.64280	13.83506	.4426072
#3	5416.296	.2888239	.7768097	80.38049	14.38649	.4385885

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3420-05MS Acquired: 10/23/2025 22:03:49 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6995680	.2514586	F 29.14258	7.994301	F 1787.424	.3120258
Stddev	.0076030	.0026250	.53526	.122917	47.221	.0027557
%RSD	1.086820	1.043928	1.836678	1.537563	2.641836	.8831700
#1	.7081223	.2507221	28.58358	8.131587	1838.716	.3118626
#2	.6970009	.2492805	29.19373	7.956853	1745.756	.3093553
#3	.6935809	.2543733	29.65042	7.894463	1777.801	.3148595

Elem	Sr4077
Units	ppm
Avg	.1942999
Stddev	.0013406
%RSD	.6899662
#1	.1952380
#2	.1927644
#3	.1948971

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4719.757	62481.00	5184.131	3549.302	4556.700
Stddev	45.778	167.52	79.610	14.766	43.389
%RSD	.9699282	.2681077	1.535646	.4160173	.9522116
#1	4673.871	62305.77	5197.696	3534.387	4513.747
#2	4719.975	62497.67	5256.087	3563.914	4555.838
#3	4765.427	62639.56	5098.610	3549.606	4600.513

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3420-05MSD Acquired: 10/23/2025 22:08:05 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.006510**	**1.636672**	**.9506267**	**3.286150**	**.8451528**	**5.215132**
Stddev	.011581	.073223	.0062459	.032816	.0121679	.003285
%RSD	1.150584	4.473911	.6570295	.9986215	1.439723	.0629813
#1	.993150	1.684061	.9434256	3.248830	.8311113	5.214182
#2	1.012700	1.673618	.9545719	3.310492	.8526013	5.212427
#3	1.013681	1.552336	.9538827	3.299129	.8517459	5.218787

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1885427**	**.1653149**	**.2117672**	**2.596409**	**.3898193**	**.2033368**
Stddev	.0019737	.0014639	.0017009	.016658	.0014240	.0014775
%RSD	1.046829	.8855329	.8031687	.6415806	.3653079	.7266240
#1	.1900448	.1644540	.2098033	2.608935	.3886612	.2016338
#2	.1863073	.1644856	.2127590	2.577504	.3893874	.2041005
#3	.1892761	.1670052	.2127393	2.602788	.3914093	.2042762

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.2835182**	**4.263174**	**.1938231**	**3.109136**	**.5395223**	**.0867150**
Stddev	.0022337	.061839	.0013348	.024975	.0045526	.0004584
%RSD	.7878593	1.450532	.6886823	.8032842	.8438240	.5286344
#1	.2809476	4.320745	.1953639	3.122999	.5342992	.0870897
#2	.2849868	4.270971	.1930186	3.080304	.5416182	.0862038
#3	.2846203	4.197807	.1930868	3.124105	.5426495	.0868514

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **4875.044**	**.2746487**	**.7510354**	**80.28639**	F **13.67012**	**.4377567**
Stddev	17.697	.0020590	.0026981	2.67750	.11844	.0034156
%RSD	.3630158	.7496974	.3592494	3.334942	.8664242	.7802603
#1	4891.625	.2743292	.7499829	77.40544	13.59691	.4338973
#2	4856.410	.2768488	.7490222	80.75519	13.60668	.4389831
#3	4877.097	.2727681	.7541012	82.69853	13.80677	.4403899

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3420-05MSD Acquired: 10/23/2025 22:08:05 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7063474	.2486285	F 30.41935	8.038661	F 1832.516	.2942177
Stddev	.0032760	.0017144	.55744	.071263	14.908	.0025443
%RSD	.4637870	.6895325	1.832531	.8865007	.8135153	.8647536
#1	.7025673	.2481494	29.84801	7.958618	1838.861	.2917960
#2	.7081147	.2505315	30.44828	8.095211	1843.203	.2939880
#3	.7083602	.2472047	30.96177	8.062153	1815.486	.2968690

Elem	Sr4077
Units	ppm
Avg	.1873986
Stddev	.0010617
%RSD	.5665244
#1	.1882906
#2	.1862243
#3	.1876810

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4722.432	63943.05	5330.799	3676.007	4534.134
Stddev	10.217	245.80	48.644	10.913	12.803
%RSD	.2163560	.3844059	.9125007	.2968769	.2823672
#1	4731.817	64165.60	5352.075	3679.088	4543.531
#2	4711.548	63984.32	5365.180	3685.050	4519.552
#3	4723.933	63679.23	5275.142	3663.885	4539.319

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3420-05A Acquired: 10/23/2025 22:12:22 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.025302	1.745047	.9805953	3.366772	.8604105	6.825560
Stddev	.012891	.039381	.0096172	.027067	.0013044	.056953
%RSD	1.257315	2.256724	.9807492	.8039585	.1516051	.8344150
#1	1.010552	1.702090	.9695829	3.339760	.8589184	6.761211
#2	1.034412	1.753606	.9873411	3.393894	.8609790	6.869488
#3	1.030941	1.779444	.9848617	3.366663	.8613343	6.845982

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2137339	.1759655	.2182718	3.039061	.3974403	.2092151
Stddev	.0013510	.0018100	.0026578	.020449	.0053606	.0014349
%RSD	.6321196	1.028609	1.217653	.6728803	1.348773	.6858483
#1	.2134311	.1779650	.2152122	3.022987	.3981461	.2076212
#2	.2152107	.1754926	.2200092	3.062078	.4024130	.2104038
#3	.2125600	.1744389	.2195939	3.032119	.3917618	.2096204

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2909687	4.672643	.2162532	3.372472	.5583565	.0911608
Stddev	.0025789	.073624	.0023305	.040392	.0058643	.0013684
%RSD	.8863279	1.575630	1.077689	1.197697	1.050280	1.501113
#1	.2880163	4.602959	.2136005	3.326070	.5515889	.0911664
#2	.2927821	4.749658	.2179719	3.391588	.5619414	.0925264
#3	.2921076	4.665311	.2171871	3.399758	.5615391	.0897896

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 5224.801	.3003814	.7942448	90.21021	F 14.82813	.4473427
Stddev	44.534	.0018611	.0098384	3.43071	.12747	.0043368
%RSD	.8523549	.6195782	1.238711	3.803019	.8596288	.9694679
#1	5245.690	.2982581	.7996139	86.25651	14.96622	.4424178
#2	5255.051	.3011566	.8002305	91.97265	14.80319	.4505908
#3	5173.663	.3017297	.7828899	92.40147	14.71497	.4490196

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3420-05A Acquired: 10/23/2025 22:12:22 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7355172	.2893553	F 32.71157	8.413389	F 1916.483	.3286953
Stddev	.0081318	.0070816	.38016	.100423	28.285	.0043139
%RSD	1.105596	2.447370	1.162156	1.193604	1.475905	1.312440
#1	.7262060	.2849753	32.31697	8.297455	1887.306	.3239055
#2	.7391231	.2975253	33.07542	8.473417	1918.359	.3322749
#3	.7412226	.2855653	32.74231	8.469294	1943.784	.3299056

Elem	Sr4077
Units	ppm
Avg	.2087009
Stddev	.0020200
%RSD	.9678906
#1	.2063685
#2	.2098686
#3	.2098657

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	4592.314	62538.09	5090.588	3676.376	4379.143
Stddev	51.524	379.40	25.211	27.090	54.192
%RSD	1.121971	.6066642	.4952449	.7368771	1.237511
#1	4651.491	62556.18	5066.095	3666.291	4441.258
#2	4568.052	62149.97	5116.460	3655.775	4354.651
#3	4557.400	62908.11	5089.209	3707.063	4341.520

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3422-02 Acquired: 10/23/2025 22:16:40 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0011658**	**.0006506**	**.0005600**	**.0048004**	**.0019923**	**-.000240**	**.0041697**
Stddev	.0006114	.0005554	.0015193	.0002376	.0010708	.025241	.0029324
%RSD	52.44133	85.36279	271.2922	4.948884	53.74783	10530.23	70.32557
#1	.0009674	.0000209	.0002539	.0045945	.0007571	-.006267	.0035025
#2	.0006783	.0008606	.0022091	.0047463	.0026586	.027469	.0073782
#3	.0018518	.0010704	-.000783	.0050603	.0025613	-.021922	.0016284

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.000165**	**-.000134**	**.0404281**	**.0048519**	**-.000189**	**.0004370**	**.0158290**
Stddev	.000046	.000014	.0178528	.0003331	.000100	.0004819	.0041708
%RSD	27.91982	10.49371	44.15930	6.865765	53.07567	110.2821	26.34886
#1	-.000200	-.000123	.0431700	.0050107	-.000168	.0006333	.0152335
#2	-.000113	-.000150	.0213630	.0050758	-.000298	-.000112	.0202655
#3	-.000182	-.000130	.0567513	.0044691	-.000101	.000790	.0119880

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0023863**	**.0561210**	**.0003036**	**.0002809**	**5.064591**	**-.003045**	**.0020606**
Stddev	.0012755	.0329844	.0000433	.0005994	.214008	.003363	.0001795
%RSD	53.45204	58.77363	14.26336	213.3777	4.225568	110.4355	8.710489
#1	.0030327	.0294670	.0003515	.0006232	5.311315	.000658	.0021867
#2	.0009170	.0930094	.0002922	-.000411	4.929203	-.003884	.0018551
#3	.0032092	.0458866	.0002671	.000631	4.953255	-.005909	.0021399

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.611431**	**.2212817**	**.0004552**	**-.018542**	**-.001075**	**6.419370**	**.0008488**
Stddev	.129249	.0064012	.0003576	.000704	.001156	.086832	.0012030
%RSD	8.020742	2.892760	78.54644	3.794932	107.6036	1.352661	141.7398
#1	1.743611	.2139253	.0007668	-.019319	.000039	6.324175	.0004552
#2	1.605354	.2255820	.0005340	-.018360	-.002269	6.439703	.0021993
#3	1.485328	.2243378	.0000648	-.017947	-.000994	6.494231	-.000108

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3422-02 Acquired: 10/23/2025 22:16:40 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1609298	-.005614	.0001854
Stddev	.0077147	.002135	.0000276
%RSD	4.793831	38.02975	14.86758
#1	.1698319	-.005647	.0001862
#2	.1567626	-.003463	.0002126
#3	.1561949	-.007733	.0001575

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	7040.020	98581.12	5249.155	5619.125	8338.992
Stddev	36.142	673.29	73.967	58.990	40.337
%RSD	.5133796	.6829806	1.409131	1.049815	.4837101
#1	7040.447	99260.58	5329.062	5683.016	8333.222
#2	7003.666	98568.60	5183.079	5607.631	8301.852
#3	7075.946	97914.17	5235.325	5566.727	8381.903

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCV11 Acquired: 10/23/2025 22:20:51 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV11 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.979036**	F **4.437334**	**5.159392**	**4.941835**	**4.716715**	**9.496842**
Stddev	.004206	.218769	.003794	.018206	.004575	.047103
%RSD	.0844813	4.930187	.0735307	.3684058	.0970018	.4959900
#1	4.981874	4.526848	5.156886	4.960443	4.717866	9.468207
#2	4.974203	4.188004	5.157533	4.924059	4.720604	9.551207
#3	4.981031	4.597151	5.163757	4.941003	4.711674	9.471113

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.354333**	**.2682940**	**2.588988**	**24.32717**	**.9513972**	**2.493009**
Stddev	.021586	.0068579	.004276	.05537	.0065244	.002139
%RSD	.2307619	2.556119	.1651467	.2275949	.6857713	.0857815
#1	9.329428	.2734101	2.586250	24.30453	.9479274	2.491490
#2	9.365901	.2709705	2.586799	24.39027	.9473408	2.492083
#3	9.367670	.2605014	2.593915	24.28671	.9589233	2.495454

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.252638**	F **4.390929**	**2.416216**	**25.13728**	**2.525430**	**1.234824**
Stddev	.000638	.133932	.001455	.13014	.001628	.003754
%RSD	.0509174	3.050186	.0602277	.5177057	.0644716	.3040479
#1	1.251901	4.255277	2.414616	25.02509	2.525949	1.232865
#2	1.252998	4.394440	2.417460	25.27995	2.523605	1.232453
#3	1.253014	4.523071	2.416571	25.10679	2.526735	1.239152

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **32.75698**	**2.406952**	**2.448863**	F **28.34598**	F **6.122526**	**4.867516**
Stddev	.62407	.015983	.010022	.90698	.174724	.004587
%RSD	1.905156	.6640546	.4092602	3.199675	2.853787	.0942453
#1	32.04166	2.400114	2.447808	27.38360	6.268922	4.867147
#2	33.03907	2.425216	2.439409	28.46940	6.169556	4.863125
#3	33.19020	2.395524	2.459370	29.18492	5.929101	4.872277

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCV11 Acquired: 10/23/2025 22:20:51 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal 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	**5.159774**	**4.730661**	F **7.352448**	**5.392457**	**5.265220**	F **4.495613**
Stddev	.016355	.021963	.135467	.037692	.051146	.015287
%RSD	.3169694	.4642755	1.842471	.6989808	.9713913	.3400383
#1	5.171505	4.716143	7.211537	5.420358	5.263448	4.490438
#2	5.141092	4.755929	7.364088	5.349578	5.214983	4.512815
#3	5.166726	4.719912	7.481720	5.407435	5.317229	4.483585

Elem	Sr4077
Units	ppm
Avg	**4.716730**
Stddev	.124754
%RSD	2.644926
#1	4.786203
#2	4.791280
#3	4.572706

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6755.498**	**92083.82**	**5151.477**	**5265.677**	**7216.599**
Stddev	38.482	597.30	139.583	38.594	37.437
%RSD	.5696460	.6486448	2.709566	.7329269	.5187586
#1	6794.959	92772.74	5052.584	5301.297	7249.777
#2	6753.461	91711.03	5090.703	5271.060	7224.008
#3	6718.075	91767.69	5311.143	5224.675	7176.012

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCB11 Acquired: 10/23/2025 22:24:53 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB11 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0013694	.0064014	.0008795	.0056165	.0045021	-.013459
Stddev	.0012436	.0028814	.0003529	.0022839	.0017669	.022157
%RSD	90.81954	45.01250	40.12128	40.66398	39.24583	164.6227
#1	.0003514	.0092488	.0005458	.0033604	.0024729	.001950
#2	.0010011	.0064682	.0012489	.0055620	.0053333	-.038852
#3	.0027555	.0034871	.0008440	.0079272	.0057002	-.003476

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0109680	.0001126	-.000111	-.007951	.0000561	.0000498
Stddev	.0028829	.0000502	.000014	.013219	.0001124	.0002341
%RSD	26.28442	44.56933	12.53143	166.2601	200.4152	469.9561
#1	.0112852	.0000819	-.000123	-.006105	.0000454	-.000212
#2	.0079396	.0001706	-.000096	-.021995	.0001734	.000238
#3	.0136791	.0000855	-.000114	.004248	-.000051	.000124

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000060	-.010862	-.000968	.0144659	-.000261	.0003957
Stddev	.000079	.002539	.000214	.0315782	.000050	.0002115
%RSD	131.0051	23.37168	22.10524	218.2945	18.96675	53.44947
#1	-.000005	-.008082	-.001212	.0320409	-.000313	.0003120
#2	-.000151	-.011447	-.000810	-.021990	-.000214	.0006363
#3	-.000025	-.013057	-.000883	.033346	-.000258	.0002389

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 10.43951	-.006457	-.000001	F 6.455639	F .1839805	.0004782
Stddev	.09511	.008091	.000051	.166026	.0028802	.0001319
%RSD	.9110384	125.3094	3969.660	2.571796	1.565511	27.57916
#1	10.33112	.002849	.000056	6.263934	.1867934	.0006114
#2	10.50901	-.010389	-.000041	6.552708	.1841107	.0004754
#3	10.47841	-.011830	-.000019	6.550276	.1810373	.0003477

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCB11 Acquired: 10/23/2025 22:24:53 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB11 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006015	.0002238	F 1.689624	-.004941	F .5206118	F .0199411
Stddev	.000222	.0023878	.032000	.001495	.0164051	.0008923
%RSD	3.686345	1066.708	1.893922	30.25971	3.151122	4.474629
#1	-.005965	.0020793	1.726242	-.003761	.5027580	.0209713
#2	-.005822	.0010623	1.675597	-.006622	.5240560	.0194375
#3	-.006257	-.002470	1.667033	-.004440	.5350213	.0194144

Elem	Sr4077
Units	ppm
Avg	.0001182
Stddev	.0001840
%RSD	155.6377
#1	.0002755
#2	.0001634
#3	-.000084

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	6802.032	92295.21	5329.198	5237.797	8040.620
Stddev	7.888	233.20	27.460	27.750	13.151
%RSD	.1159709	.2526625	.5152799	.5298037	.1635556
#1	6804.781	92118.77	5297.734	5230.903	8037.737
#2	6793.137	92559.59	5348.331	5268.344	8029.149
#3	6808.178	92207.27	5341.531	5214.143	8054.972

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3434-02 Acquired: 10/23/2025 22:29:05 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.0165244**	**.0019628**	**.1439853**	**.0061103**	**.0089440**	**9.472177**
Stddev	.0025778	.0046062	.0012446	.0022523	.0031667	.011381
%RSD	15.60015	234.6763	.8643910	36.86107	35.40565	.1201535
#1	.0185357	.0002460	.1445986	.0054943	.0067287	9.471479
#2	.0174191	.0071809	.1448043	.0042301	.0125711	9.483892
#3	.0136184	-.001538	.1425531	.0086066	.0075324	9.461162

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.4688475**	**.0010372**	**.0020279**	**156.1064**	**.0895872**	**.0069908**
Stddev	.0012257	.0000201	.0001188	.2757	.0004432	.0001195
%RSD	.2614349	1.942500	5.857233	.1766296	.4946594	1.709449
#1	.4674932	.0010158	.0018981	155.7894	.0897207	.0071114
#2	.4698808	.0010402	.0021310	156.2392	.0899482	.0069886
#3	.4691684	.0010557	.0020547	156.2906	.0890926	.0068724

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**.1063789**	**21.50913**	**1.132157**	**486.2875**	**.0324243**	**.0025946**
Stddev	.0007346	.15582	.004972	.7965	.0007152	.0001431
%RSD	.6905219	.7244265	.4391490	.1637893	2.205804	5.515402
#1	.1072268	21.65006	1.126576	485.3853	.0331491	.0027598
#2	.1059344	21.53553	1.133781	486.8932	.0324048	.0025146
#3	.1059755	21.34180	1.136113	486.5841	.0317190	.0025093

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **3297.281**	**.0261408**	**.6071064**	**239.2718**	**1.752917**	**.0236575**
Stddev	9.706	.0011231	.0025877	1.4904	.021315	.0000728
%RSD	.2943646	4.296285	.4262325	.6228898	1.215947	.3076919
#1	3307.127	.0268136	.6096815	240.5317	1.728840	.0236681
#2	3296.997	.0267645	.6071315	239.6573	1.760533	.0237244
#3	3287.721	.0248443	.6045063	237.6266	1.769377	.0235799

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: Q3434-02 Acquired: 10/23/2025 22:29:05 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001451	.2997391	F 28.45777	3.886871	F 393.9471	.0934182
Stddev	.000777	.0082263	.23932	.037336	3.8922	.0022826
%RSD	53.58321	2.744499	.8409784	.9605757	.9880108	2.443455
#1	-.000619	.2907428	28.56339	3.916452	397.5491	.0915928
#2	-.001575	.3015965	28.62611	3.899243	394.4740	.0926843
#3	-.002159	.3068778	28.18380	3.844920	389.8183	.0959775

Elem	Sr4077
Units	ppm
Avg	2.654110
Stddev	.004267
%RSD	.1607556
#1	2.650225
#2	2.658677
#3	2.653429

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5380.269	70003.56	5392.348	3998.649	5218.270
Stddev	32.410	162.90	66.381	6.923	32.050
%RSD	.6023770	.2326995	1.231017	.1731323	.6141802
#1	5343.649	70150.95	5465.545	3991.548	5183.901
#2	5391.899	69828.66	5375.448	3999.020	5223.567
#3	5405.259	70031.07	5336.051	4005.379	5247.340

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCV12 Acquired: 10/23/2025 22:33:17 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV12 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**4.920354**	**4.547473**	**5.067913**	**4.929844**	**4.658810**	**9.285016**
Stddev	.005561	.124541	.006148	.008145	.007561	.044782
%RSD	.1130159	2.738697	.1213053	.1652106	.1622958	.4823060
#1	4.914003	4.429973	5.072743	4.923976	4.665417	9.335071
#2	4.922712	4.534418	5.070003	4.926412	4.660448	9.271228
#3	4.924347	4.678027	5.060993	4.939142	4.650564	9.248750

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**9.068187**	**.2577109**	**2.538972**	**23.73648**	**.9324803**	**2.442663**
Stddev	.064999	.0038078	.002360	.14059	.0005855	.002400
%RSD	.7167794	1.477532	.0929360	.5922982	.0627941	.0982707
#1	9.126013	.2616380	2.540041	23.85155	.9321144	2.442447
#2	9.080710	.2574597	2.540608	23.77811	.9321709	2.445164
#3	8.997837	.2540349	2.536267	23.57977	.9331557	2.440377

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**1.227620**	F **4.223935**	**2.348486**	**24.54782**	**2.471257**	**1.220650**
Stddev	.000975	.041755	.019983	.26701	.001856	.000520
%RSD	.0794222	.9885394	.8508676	1.087721	.0750849	.0426384
#1	1.228562	4.182083	2.363287	24.78725	2.472338	1.220564
#2	1.227684	4.224128	2.356416	24.59632	2.472318	1.221208
#3	1.226615	4.265593	2.325756	24.25988	2.469114	1.220178

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F **30.01656**	**2.360411**	**2.411184**	**27.03706**	F **5.810933**	**4.767264**
Stddev	.28200	.012720	.012093	.12490	.074497	.003451
%RSD	.9394880	.5389050	.5015339	.4619493	1.282016	.0723848
#1	30.34152	2.373931	2.419803	26.93735	5.888798	4.770125
#2	29.83597	2.348679	2.416389	26.99668	5.803666	4.768236
#3	29.87220	2.358625	2.397360	27.17715	5.740336	4.763432

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCV12 Acquired: 10/23/2025 22:33:17 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCV12 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**5.048927**	**4.597035**	**5.322137**	**5.330937**	**5.365503**	F **4.343334**
Stddev	.005143	.031291	.065067	.013777	.008005	.034683
%RSD	.1018658	.6806870	1.222581	.2584312	.1491993	.7985448
#1	5.051512	4.625984	5.253480	5.332203	5.356312	4.380095
#2	5.052265	4.601285	5.330039	5.316571	5.370953	4.338718
#3	5.043004	4.563836	5.382893	5.344038	5.369243	4.311190

Elem	Sr4077
Units	ppm
Avg	**4.635281**
Stddev	.030525
%RSD	.6585413
#1	4.640949
#2	4.602319
#3	4.662574

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6827.473**	**92302.30**	**5382.949**	**5287.293**	**7307.234**
Stddev	16.104	251.23	57.938	13.716	17.874
%RSD	.2358687	.2721771	1.076324	.2594195	.2446023
#1	6808.957	92450.82	5317.321	5282.811	7286.947
#2	6835.245	92443.85	5404.514	5276.377	7314.088
#3	6838.217	92012.24	5427.012	5302.689	7320.666

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCB12 Acquired: 10/23/2025 22:37:20 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB12 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004704	.0041215	.0010612	.0034899	.0031013	-.017571
Stddev	.0009170	.0009623	.0001755	.0014295	.0018232	.005946
%RSD	194.9171	23.34909	16.53601	40.96079	58.78852	33.83821
#1	.0006892	.0030835	.0010125	.0042605	.0051658	-.024260
#2	-.000536	.0049841	.0009153	.0043687	.0024258	-.015565
#3	.001258	.0042969	.0012560	.0018404	.0017122	-.012888

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0122584	.0000264	-.000074	.0186522	.0000751	-.000056
Stddev	.0016951	.0000492	.000015	.0090793	.0000951	.000413
%RSD	13.82763	186.6593	19.54437	48.67663	126.5510	732.6887
#1	.0103124	.0000721	-.000082	.0125405	-.000032	-.000260
#2	.0130504	.0000328	-.000084	.0143311	.000151	-.000327
#3	.0134126	-.000026	-.000058	.0290849	.000106	.000419

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005575	-.004611	.0002627	-.022185	-.000300	.0001307
Stddev	.0000753	.002602	.0002965	.014875	.000206	.0001689
%RSD	13.51287	56.42892	112.8564	67.04932	68.54896	129.2606
#1	.0005098	-.001608	.0005079	-.017373	-.000504	.0000392
#2	.0006443	-.006200	.0003470	-.038870	-.000302	.0000273
#3	.0005182	-.006024	-.000067	-.010312	-.000093	.0003256

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 7.480528	.0004734	-.000196	F 4.644733	F .1358853	.0004375
Stddev	.058634	.0047953	.000106	.059206	.0011267	.0002218
%RSD	.7838251	1012.917	54.26865	1.274701	.8291666	50.70481
#1	7.467919	-.004443	-.000274	4.621304	.1356389	.0005131
#2	7.429225	.005137	-.000075	4.600827	.1349022	.0006116
#3	7.544441	.000726	-.000239	4.712069	.1371148	.0001877

Reviewed By:jaswal
On:10/28/2025 3:14:16 PM
Inst Id :P4
LB :LB137630

Sample Name: CCB12 Acquired: 10/23/2025 22:37:20 Type: Unk
Method: 6010-200.7 NEW(v307) Mode: CONC Corr. Factor: 1.000000
User: Jaswal Custom ID1: CCB12 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	**-.006089**	**-.000086**	F **.6349756**	**-.005261**	F **.3735760**	F **.0187746**
Stddev	.000129	.001023	.0138509	.001119	.0087444	.0028447
%RSD	2.125599	1191.921	2.181328	21.26274	2.340721	15.15173
#1	-.006222	-.000478	.6388666	-.005723	.3828977	.0183962
#2	-.006083	-.000854	.6464649	-.003985	.3722759	.0161381
#3	-.005963	.001075	.6195953	-.006073	.3655546	.0217896

Elem	Sr4077
Units	ppm
Avg	**-.000122**
Stddev	.000054
%RSD	43.90704
#1	-.000182
#2	-.000106
#3	-.000078

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6813.999**	**91127.63**	**5141.907**	**5210.212**	**8063.486**
Stddev	58.635	564.78	45.283	22.778	66.290
%RSD	.8605110	.6197643	.8806742	.4371767	.8220998
#1	6748.719	91753.89	5193.700	5233.660	7988.744
#2	6831.085	90972.02	5109.791	5208.806	8086.551
#3	6862.194	90656.96	5122.229	5188.170	8115.162

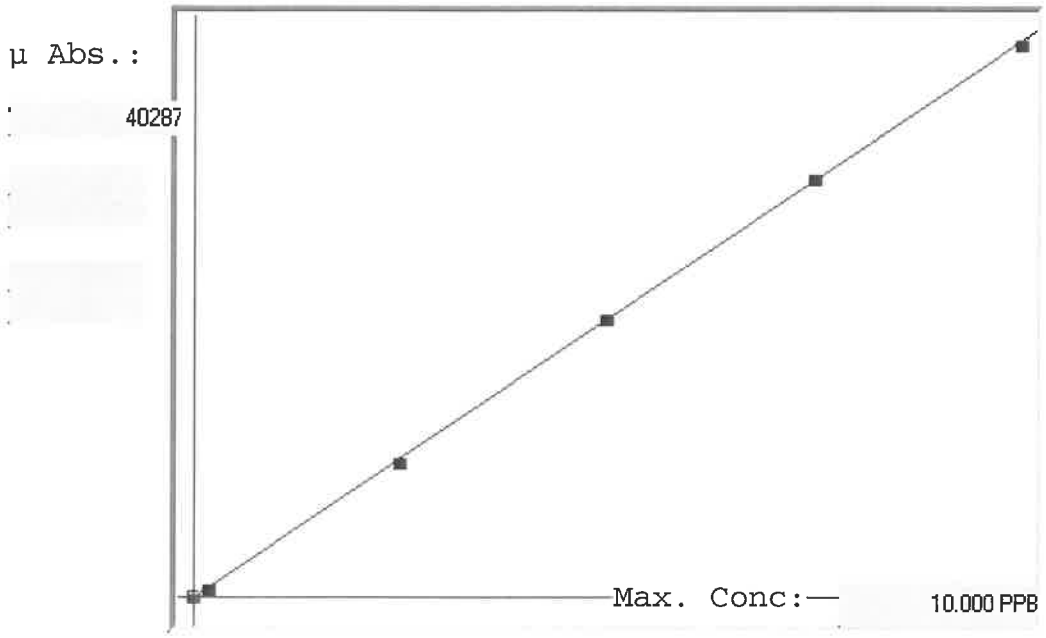
Reviewed By:mohan
On:10/27/2025 8:25:17 AM
Inst Id :CV1
LB :LB137620

LB137620

7470A

INSTRUMENT ID: CV1

Linear



A= 0.0000e+000

B= 2.4697e-004

C= 1.9379e-002

Rho= 0.9999695

Accept=Accepted

Std ID	Conc.	Calc.	Dev.	Mean	SD or %RSD	Rep 1	Rep 2	Rep 3	Rep 4	Rep 5
0.0	0.000	0.014	0.014	-22	0.000	-22	0			
0.2	0.200	0.192	-0.008	697	0.0 %	697	0			
2.5	2.500	2.460	-0.040	9881	0.0 %	9881	0			
5.0	5.000	5.035	0.035	20307	0.0 %	20307				
7.5	7.500	7.531	0.031	30414	0.0 %	30414				
10.0	10.000	9.969	-0.031	40287	0.0 %	40287				

Reviewed By:mohan
On:10/27/2025 8:25:17 AM
Inst Id :CV1
LB :LB137620

LB137620 INSTRUMENT ID : CV1

Method: 7470A Operator: Admin Date of Analysis: 23 Oct 2025 07:49:44

Type	Sample ID	Extended ID	Conc.	µ Abs.	Units	Type	Stnd Conc	Method	Date
S	0.0 - 1	Sc	-	-22	PPB	Std	0.0000	7470A	23 Oct 2025 08:00:59
S	0.2 - 1	S0.2	-	697	PPB	Std	0.2000	7470A	23 Oct 2025 08:03:23
S	2.5 - 1	S2.5	-	9881	PPB	Std	2.5000	7470A	23 Oct 2025 08:05:40
S	5.0 - 1	S5	-	20307	PPB	Std	5.0000	7470A	23 Oct 2025 08:07:57
S	7.5 - 1	S7.5	-	30414	PPB	Std	7.5000	7470A	23 Oct 2025 08:10:16
S	10.0 - 1	S10	-	40287	PPB	Std	10.0000	7470A	23 Oct 2025 08:12:35
U	ICV84 - 1	ICV84	3.9860	16061	PPB	SMPL		7470A	23 Oct 2025 08:15:49
U	ICB84 - 1	ICB84	-0.0219	-167	PPB	SMPL		7470A	23 Oct 2025 08:18:04
U	CCV75 - 1	CCV75	5.0337	20303	PPB	SMPL		7470A	23 Oct 2025 08:22:44
U	CCB75 - 1	CCB75	-0.0283	-193	PPB	SMPL		7470A	23 Oct 2025 08:24:59
U	CRA - 1	CRA	0.2207	815	PPB	SMPL		7470A	23 Oct 2025 08:27:18
U	HighStd - 1	HighStd	10.1090	40853	PPB	SMPL		7470A	23 Oct 2025 08:29:33
U	ChkStd - 1	ChkStd	6.7791	27370	PPB	SMPL		7470A	23 Oct 2025 08:31:48
U	PB170219BL - 1	PBW	-0.0515	-287	PPB	SMPL		7470A	23 Oct 2025 08:34:13
U	PB170219BS - 1	LCSW	3.7391	15061	PPB	SMPL		7470A	23 Oct 2025 08:36:34
U	Q3368-06 - 1	OUTSIDE-DUMPSTER	-0.0214	-165	PPB	SMPL		7470A	23 Oct 2025 08:38:51
U	Q3368-07 - 1	PRESS-SLUDGE	0.0236	17	PPB	SMPL		7470A	23 Oct 2025 08:41:10
U	Q3397-04 - 1	TP-7-WC	0.0283	36	PPB	SMPL		7470A	23 Oct 2025 08:43:26
U	Q3399-02 - 1	COMP-ROLLOFF	0.0236	17	PPB	SMPL		7470A	23 Oct 2025 08:45:43
U	Q3402-03 - 1	41-LA	0.0258	26	PPB	SMPL		7470A	23 Oct 2025 08:48:06
U	CCV76 - 1	CCV76	5.0485	20363	PPB	SMPL		7470A	23 Oct 2025 08:50:21
U	CCB76 - 1	CCB76	-0.0219	-167	PPB	SMPL		7470A	23 Oct 2025 08:52:36
U	Q3402-06 - 1	41-RA	0.0248	22	PPB	SMPL		7470A	23 Oct 2025 08:54:55
U	Q3402-09 - 1	41-LB	0.0307	46	PPB	SMPL		7470A	23 Oct 2025 08:57:11
U	Q3402-12 - 1	41-RB	0.0367	70	PPB	SMPL		7470A	23 Oct 2025 08:59:26
U	Q3403-04 - 1	MH-18	0.0298	42	PPB	SMPL		7470A	23 Oct 2025 09:01:43
U	Q3404-02 - 1	MOO-25-0285-0288	0.0248	22	PPB	SMPL		7470A	23 Oct 2025 09:04:06
U	Q3404-06 - 1	MOO-25-0292	0.0248	22	PPB	SMPL		7470A	23 Oct 2025 09:06:22
U	Q3406-02 - 1	ARS20-0037	0.0115	-32	PPB	SMPL		7470A	23 Oct 2025 09:08:38
U	Q3412-04 - 1	TP-6	0.0181	-5	PPB	SMPL		7470A	23 Oct 2025 09:10:55
U	Q3412-04DUP - 1	TP-6DUP	0.0246	21	PPB	SMPL		7470A	23 Oct 2025 09:13:42
U	Q3412-04MS - 1	TP-6MS	3.8216	15395	PPB	SMPL		7470A	23 Oct 2025 09:16:02
U	CCV77 - 1	CCV77	4.9033	19775	PPB	SMPL		7470A	23 Oct 2025 09:18:17
U	CCB77 - 1	CCB77	-0.0216	-166	PPB	SMPL		7470A	23 Oct 2025 09:20:36
U	Q3412-04MSD - 1	TP-6MSD	3.8082	15341	PPB	SMPL		7470A	23 Oct 2025 09:22:54
U	PB170172TB - 1	PB170172TB	-0.0006	-81	PPB	SMPL		7470A	23 Oct 2025 09:25:09
U	Q3412-04LX5 - 1		0.0258	26	PPB	SMPL		7470A	23 Oct 2025 09:27:36
U	Q3412-04A - 1		4.0633	16374	PPB	SMPL		7470A	23 Oct 2025 09:33:49
U	CCV78 - 1	CCV78	5.0493	20366	PPB	SMPL		7470A	23 Oct 2025 09:36:05
U	CCB78 - 1	CCB78	-0.0327	-211	PPB	SMPL		7470A	23 Oct 2025 09:38:24

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB170214

SOP ID : M3010A-Digestion-17

SDG No : N/A

Start Digest Date: 10/22/2025 **Time :** 12:30 **Temp :** 96 °C

Matrix : WATER

End Digest Date: 10/22/2025 **Time :** 15:33 **Temp :** 96 °C

Pippete ID: ICP A

Digestion tube ID: M5595

Balance ID : N/A

Block thermometer ID: MET-DIG. #1

Filter paper ID : N/A

Dig Technician Signature: SLS

pH Strip ID : M6069

Supervisor Signature:

Hood ID : #3

Temp : **1.** 96°C **2.** N/A

Block ID: **1.** HOT BLOCK #1 **2.** N/A

Standared Name	MLS USED	STD REF. # FROM LOG
LFS-1	0.25	M6209
LFS-2	0.25	M6201
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	MP87148
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

HOT BLOCK#1 CELL#50 96C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
10/22/25 15:33	SLS Met dig	Metals Lab
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Water Metals Preparation Sheet

PB170214

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
PB170214BL	PBW214	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	1
PB170214BS	LCS214	<2	5	25	Colorless	Colorless	Clear	Clear	M6209,M6201	2
~~PB170214TB~~ PB170172	~~LEB214~~ LEB172 SR 10/22/2025	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	3
Q3368-06	OUTSIDE-DUMPSTER	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	4
Q3368-07	PRESS-SLUDGE	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	5
Q3397-04	TP-7-WC	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	6
Q3399-02	COMP-ROLLOFF	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	7
Q3402-03	41-LA	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	8
Q3402-06	41-RA	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	9
Q3402-09	41-LB	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	10
Q3402-12	41-RB	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	11
Q3403-04	MH-18	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	12
Q3404-02	MOO-25-0285-0288	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	13
Q3404-06	MOO-25-0292	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	14
Q3406-02	ARS20-0037	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	15
Q3412-04	TP-6	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	16
Q3412-04MS	TP-6MS	<2	5	25	Colorless	Colorless	Clear	Clear	M6209,M6201	18
Q3412-04MSD	TP-6MSD	<2	5	25	Colorless	Colorless	Clear	Clear	M6209,M6201	19
Q3412-04DUP	TP-6DUP	<2	5	25	Colorless	Colorless	Clear	Clear	N/A	17

Alliance TECHNICAL GROUP

TCLP EXTRACTION LOGPAGE

PB170172

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
PB170172TB	LEB172	14	N/A	2000	N/A	N/A	N/A	4.94	1.5	T-2
Q3368-06	OUTSIDE-DUMPSTER	01	100.02	2000	N/A	N/A	N/A	5.5	1.0	T-1
Q3368-07	PRESS-SLUDGE	02	100.03	2000	N/A	N/A	N/A	3.5	1.0	T-1
Q3397-04	TP-7-WC	03	100.02	2000	N/A	N/A	N/A	5.6	1.5	T-1
Q3399-02	COMP-ROLLOFF	04	100.02	2000	N/A	N/A	N/A	4.5	1.0	T-1
Q3402-03	41-LA	05	100.03	2000	N/A	N/A	N/A	5.6	1.0	T-1
Q3402-06	41-RA	06	100.02	2000	N/A	N/A	N/A	5.5	1.5	T-1
Q3402-09	41-LB	07	100.01	2000	N/A	N/A	N/A	5.5	1.5	T-1
Q3402-12	41-RB	08	100.02	2000	N/A	N/A	N/A	5.6	1.0	T-1
Q3403-04	MH-18	09	100.03	2000	N/A	N/A	N/A	3.0	1.0	T-1
Q3404-02	MOO-25-0285-0288	10	100.02	2000	N/A	N/A	N/A	4.5	1.5	T-1
Q3404-06	MOO-25-0292	11	100.01	2000	N/A	N/A	N/A	3.0	1.0	T-2
Q3406-02	ARS20-0037	12	100.02	2000	N/A	N/A	N/A	3.5	1.5	T-2
Q3412-04	TP-6	13	100.03	2000	N/A	N/A	N/A	6.2	1.0	T-2

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB170219

SOP ID : M7470A-Mercury-20

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: 10/22/2025 **Time :** 13:30 **Temp :** 95 °C

End Digest Date: 10/22/2025 **Time :** 15:30 **Temp :** 95 °C

Digestion tube ID: M5595

Block thermometer ID: HG-DIG#3

Dig Technician Signature: MB

Supervisor Signature: 12

Temp : 1. 95°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
ICV	30mL	MP87692
CCV	30mL	MP87694
CRA	30mL	MP87686
Blank Spike	0.48mL	MP87685
Matrix Spike	0.48mL	MP87685

Chemical Used	ML/SAMPLE USED	Lot Number
HNO3/H2SO4(1:2)	2.25mL	MP87633
KMnO4 (5%)	4.5mL	MP87634
K2S2O8 (5%)	2.4mL	MP87635
Hydroxylamine HCL (12%)	1.8mL	MP87636
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	MP87686
0.05 ppb	S0.05	N/A	N/A
0.2 ppb	S0.2	30mL	MP87687
2.5 ppb	S2.5	30mL	MP87688
5.0 ppb	S5.0	30mL	MP87689
7.5 ppb	S7.5	30mL	MP87690
10.0 ppb	S10.0	30mL	MP87691
ICV	ICV	30mL	MP87692
ICB	ICB	30mL	MP87693
CCV	CCV	30mL	MP87694
CCB	CCB	30mL	MP87695
CRI	CRI	30mL	MP87696
CHK STD	CHK STD	30mL	MP87697

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
10/22/25 @ 16:20	MB - DIG LAB	MB - ORGANIC LAB
	Preparation Group	**Analysis Group**

Alliance TECHNICAL GROUP

Water Mercury Preparation Sheet

PB170219

Lab Sample ID	Client Sample ID	Initial Vol (ml)	Final Vol (ml)	pH	Comment	Prep Pos
PB170172TB	PB170172TB	3	30	<2	N/A	3-1
PB170219BL	PBW219	30	30	<2	N/A	2
PB170219BS	LCS219	30	30	<2	MP87685	3
Q3368-06	OUTSIDE-DUMPSTER	3	30	<2	N/A	4
Q3368-07	PRESS-SLUDGE	3	30	<2	N/A	5
Q3397-04	TP-7-WC	3	30	<2	N/A	6
Q3399-02	COMP-ROLLOFF	3	30	<2	N/A	7
Q3402-03	41-LA	3	30	<2	N/A	8
Q3402-06	41-RA	3	30	<2	N/A	9
Q3402-09	41-LB	3	30	<2	N/A	10
Q3402-12	41-RB	3	30	<2	N/A	11
Q3403-04	MH-18	3	30	<2	N/A	12
Q3404-02	MOO-25-0285-0288	3	30	<2	N/A	13
Q3404-06	MOO-25-0292	3	30	<2	N/A	14
Q3406-02	ARS20-0037	3	30	<2	N/A	15
Q3412-04	TP-6	3	30	<2	N/A	16
Q3412-04DUP	TP-6DUP	3	30	<2	N/A	17
Q3412-04MS	TP-6MS	3	30	<2	MP87685	18
Q3412-04MSD	TP-6MSD	3	30	<2	MP87685	19

Alliance TECHNICAL GROUP

TCLP EXTRACTION LOGPAGE

PB170172

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
PB170172TB	LEB172	14	N/A	2000	N/A	N/A	N/A	4.94	1.5	T-2
Q3368-06	OUTSIDE-DUMPSTER	01	100.02	2000	N/A	N/A	N/A	5.5	1.0	T-1
Q3368-07	PRESS-SLUDGE	02	100.03	2000	N/A	N/A	N/A	3.5	1.0	T-1
Q3397-04	TP-7-WC	03	100.02	2000	N/A	N/A	N/A	5.6	1.5	T-1
Q3399-02	COMP-ROLLOFF	04	100.02	2000	N/A	N/A	N/A	4.5	1.0	T-1
Q3402-03	41-LA	05	100.03	2000	N/A	N/A	N/A	5.6	1.0	T-1
Q3402-06	41-RA	06	100.02	2000	N/A	N/A	N/A	5.5	1.5	T-1
Q3402-09	41-LB	07	100.01	2000	N/A	N/A	N/A	5.5	1.5	T-1
Q3402-12	41-RB	08	100.02	2000	N/A	N/A	N/A	5.6	1.0	T-1
Q3403-04	MH-18	09	100.03	2000	N/A	N/A	N/A	3.0	1.0	T-1
Q3404-02	MOO-25-0285-0288	10	100.02	2000	N/A	N/A	N/A	4.5	1.5	T-1
Q3404-06	MOO-25-0292	11	100.01	2000	N/A	N/A	N/A	3.0	1.0	T-2
Q3406-02	ARS20-0037	12	100.02	2000	N/A	N/A	N/A	3.5	1.5	T-2
Q3412-04	TP-6	13	100.03	2000	N/A	N/A	N/A	6.2	1.0	T-2

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Fax : 908 789 8922

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB137620

Review By	jaswal	Review On	10/24/2025 6:52:34 PM
Supervise By	mohan	Supervise On	10/27/2025 8:25:17 AM

STD. NAME	STD REF.#
ICAL Standard	MP87686,MP87687,MP87688,MP87689,MP87690,MP87691
ICV Standard	MP87692
CCV Standard	MP87694
ICSA Standard	
CRI Standard	MP87696
LCS Standard	
Chk Standard	MP87693,MP87695,MP87697,MP87701

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	10/23/25 08:00		Sagar	OK
2	S0.2	S0.2	CAL2	10/23/25 08:03		Sagar	OK
3	S2.5	S2.5	CAL3	10/23/25 08:05		Sagar	OK
4	S5	S5	CAL4	10/23/25 08:07		Sagar	OK
5	S7.5	S7.5	CAL5	10/23/25 08:10		Sagar	OK
6	S10	S10	CAL6	10/23/25 08:12		Sagar	OK
7	ICV84	ICV84	ICV	10/23/25 08:15		Sagar	OK
8	ICB84	ICB84	ICB	10/23/25 08:18		Sagar	OK
9	CCV75	CCV75	CCV	10/23/25 08:22		Sagar	OK
10	CCB75	CCB75	CCB	10/23/25 08:24		Sagar	OK
11	CRA	CRA	CRDL	10/23/25 08:27		Sagar	OK
12	HighStd	HighStd	HIGH STD	10/23/25 08:29		Sagar	OK
13	ChkStd	ChkStd	SAM	10/23/25 08:31		Sagar	OK
14	PB170219BL	PB170219BL	MB	10/23/25 08:34		Sagar	OK
15	PB170219BS	PB170219BS	LCS	10/23/25 08:36		Sagar	OK
16	Q3368-06	OUTSIDE-DUMPSTE	SAM	10/23/25 08:38		Sagar	OK
17	Q3368-07	PRESS-SLUDGE	SAM	10/23/25 08:41		Sagar	OK
18	Q3397-04	TP-7-WC	SAM	10/23/25 08:43		Sagar	OK

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Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB137620

Review By	jaswal	Review On	10/24/2025 6:52:34 PM
Supervise By	mohan	Supervise On	10/27/2025 8:25:17 AM

STD. NAME	STD REF.#
ICAL Standard	MP87686,MP87687,MP87688,MP87689,MP87690,MP87691
ICV Standard	MP87692
CCV Standard	MP87694
ICSA Standard	
CRI Standard	MP87696
LCS Standard	
Chk Standard	MP87693,MP87695,MP87697,MP87701

19	Q3399-02	COMP-ROLLOFF	SAM	10/23/25 08:45		Sagar	OK
20	Q3402-03	41-LA	SAM	10/23/25 08:48		Sagar	OK
21	CCV76	CCV76	CCV	10/23/25 08:50		Sagar	OK
22	CCB76	CCB76	CCB	10/23/25 08:52		Sagar	OK
23	Q3402-06	41-RA	SAM	10/23/25 08:54		Sagar	OK
24	Q3402-09	41-LB	SAM	10/23/25 08:57		Sagar	OK
25	Q3402-12	41-RB	SAM	10/23/25 08:59		Sagar	OK
26	Q3403-04	MH-18	SAM	10/23/25 09:01		Sagar	OK
27	Q3404-02	MOO-25-0285-0288	SAM	10/23/25 09:04		Sagar	OK
28	Q3404-06	MOO-25-0292	SAM	10/23/25 09:06		Sagar	OK
29	Q3406-02	ARS20-0037	SAM	10/23/25 09:08		Sagar	OK
30	Q3412-04	TP-6	SAM	10/23/25 09:10		Sagar	OK
31	Q3412-04DUP	TP-6DUP	DUP	10/23/25 09:13		Sagar	OK
32	Q3412-04MS	TP-6MS	MS	10/23/25 09:16		Sagar	OK
33	CCV77	CCV77	CCV	10/23/25 09:18		Sagar	OK
34	CCB77	CCB77	CCB	10/23/25 09:20		Sagar	OK
35	Q3412-04MSD	TP-6MSD	MSD	10/23/25 09:22		Sagar	OK
36	PB170172TB	PB170172TB	MB	10/23/25 09:25		Sagar	OK
37	Q3412-04L	TP-6L	SD	10/23/25 09:27		Sagar	OK
38	Q3412-04A	TP-6A	PS	10/23/25 09:33		Sagar	OK

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Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB137620

Review By	jaswal	Review On	10/24/2025 6:52:34 PM
Supervise By	mohan	Supervise On	10/27/2025 8:25:17 AM

STD. NAME	STD REF.#
ICAL Standard	MP87686,MP87687,MP87688,MP87689,MP87690,MP87691
ICV Standard	MP87692
CCV Standard	MP87694
ICSA Standard	
CRI Standard	MP87696
LCS Standard	
Chk Standard	MP87693,MP87695,MP87697,MP87701

39	CCV78	CCV78	CCV	10/23/25 09:36		Sagar	OK
40	CCB78	CCB78	CCB	10/23/25 09:38		Sagar	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB137630

Review By	Janvi	Review On	10/28/2025 12:32:41 PM
Supervise By	jaswal	Supervise On	10/28/2025 3:14:16 PM

STD. NAME	STD REF.#
ICAL Standard	MP87637,MP87643,MP87641,MP87640,MP87639,MP87638
ICV Standard	MP87644,MP87643
CCV Standard	MP87647
ICSA Standard	MP87645,MP87646
CRI Standard	MP87643
LCS Standard	
Chk Standard	MP87668,MP87648,MP87651,MP87649,MP87650

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	10/23/25 12:40		Jaswal	OK
2	S1	S1	CAL2	10/23/25 12:45		Jaswal	OK
3	S2	S2	CAL3	10/23/25 12:49		Jaswal	OK
4	S3	S3	CAL4	10/23/25 12:53		Jaswal	OK
5	S4	S4	CAL5	10/23/25 12:57		Jaswal	OK
6	S5	S5	CAL6	10/23/25 13:01		Jaswal	OK
7	ICV01	ICV01	ICV	10/23/25 13:05		Jaswal	OK
8	LLICV01	LLICV01	LLICV	10/23/25 13:14		Jaswal	OK
9	ICB01	ICB01	ICB	10/23/25 13:20		Jaswal	OK
10	CRI01	CRI01	CRDL	10/23/25 13:24		Jaswal	OK
11	ICSA01	ICSA01	ICSA	10/23/25 13:28		Jaswal	OK
12	ICSAB01	ICSAB01	ICSAB	10/23/25 13:39		Jaswal	OK
13	ICSA01DL	ICSA01DL	ICSA	10/23/25 13:43		Jaswal	OK
14	ICSAB01DL	ICSAB01DL	ICSAB	10/23/25 13:47		Jaswal	OK
15	CCV01	CCV01	CCV	10/23/25 13:52		Jaswal	OK
16	CCB01	CCB01	CCB	10/23/25 13:57		Jaswal	OK
17	LR-1	LR-1	HIGH STD	10/23/25 14:01		Jaswal	OK
18	LR-2	LR-2	HIGH STD	10/23/25 14:06		Jaswal	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB137630

Review By	Janvi	Review On	10/28/2025 12:32:41 PM
Supervise By	jaswal	Supervise On	10/28/2025 3:14:16 PM

STD. NAME	STD REF.#
ICAL Standard	MP87637,MP87643,MP87641,MP87640,MP87639,MP87638
ICV Standard	MP87644,MP87643
CCV Standard	MP87647
ICSA Standard	MP87645,MP87646
CRI Standard	MP87643
LCS Standard	
Chk Standard	MP87668,MP87648,MP87651,MP87649,MP87650

19	LR-3	LR-3	HIGH STD	10/23/25 14:10		Jaswal	OK
20	Q3398-01	A748	SAM	10/23/25 14:15	Bad Injection	Jaswal	Not Ok
21	PB170190BS	PB170190BS	LCS	10/23/25 14:23		Jaswal	OK
22	Q3365-01DL	MW25DL	SAM	10/23/25 14:28	5x For Na	Jaswal	Confirms
23	Q3365-02DL	MW2DDL	SAM	10/23/25 14:32	5x For Na	Jaswal	Confirms
24	PB170190BL	PB170190BL	MB	10/23/25 14:36		Jaswal	OK
25	Q3398-01DL	A748DL	SAM	10/23/25 14:41	5X Mg,V oversaturated	Jaswal	Dilution
26	Q3398-01DL2	A748DL2	SAM	10/23/25 14:49	10x Mg still oversaturated	Jaswal	Dilution
27	CCV02	CCV02	CCV	10/23/25 15:04		Jaswal	OK
28	CCB02	CCB02	CCB	10/23/25 15:08		Jaswal	OK
29	Q3398-01DL3	A748DL	SAM	10/23/25 15:12	25X for Mg	Jaswal	Confirms
30	Q3368-06	OUTSIDE-DUMPSTE	SAM	10/23/25 15:17		Jaswal	OK
31	Q3368-07	PRESS-SLUDGE	SAM	10/23/25 15:21		Jaswal	OK
32	Q3397-04	TP-7-WC	SAM	10/23/25 15:25		Jaswal	OK
33	Q3399-02	COMP-ROLLOFF	SAM	10/23/25 15:30		Jaswal	OK
34	Q3402-03	41-LA	SAM	10/23/25 15:34		Jaswal	OK
35	Q3402-06	41-RA	SAM	10/23/25 15:38		Jaswal	OK
36	Q3402-09	41-LB	SAM	10/23/25 15:43		Jaswal	OK
37	Q3402-12	41-RB	SAM	10/23/25 15:47		Jaswal	OK
38	Q3403-04	MH-18	SAM	10/23/25 15:51		Jaswal	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB137630

Review By	Janvi	Review On	10/28/2025 12:32:41 PM
Supervise By	jaswal	Supervise On	10/28/2025 3:14:16 PM

STD. NAME	STD REF.#
ICAL Standard	MP87637,MP87643,MP87641,MP87640,MP87639,MP87638
ICV Standard	MP87644,MP87643
CCV Standard	MP87647
ICSA Standard	MP87645,MP87646
CRI Standard	MP87643
LCS Standard	
Chk Standard	MP87668,MP87648,MP87651,MP87649,MP87650

39	CCV03	CCV03	CCV	10/23/25 15:56		Jaswal	OK
40	CCB03	CCB03	CCB	10/23/25 16:11		Jaswal	OK
41	Q3404-02	MOO-25-0285-0288	SAM	10/23/25 16:15		Jaswal	OK
42	Q3404-06	MOO-25-0292	SAM	10/23/25 16:19		Jaswal	OK
43	Q3416-01	NB-08-10212025	SAM	10/23/25 16:24		Jaswal	OK
44	CCV04	CCV04	CCV	10/23/25 16:43		Jaswal	OK
45	CCB04	CCB04	CCB	10/23/25 16:47		Jaswal	OK
46	Q3412-04	TP-6	SAM	10/23/25 16:51		Jaswal	OK
47	Q3412-04DUP	TP-6DUP	DUP	10/23/25 16:55		Jaswal	OK
48	Q3412-04L	TP-6L	SD	10/23/25 17:00		Jaswal	OK
49	Q3412-04MS	TP-6MS	MS	10/23/25 17:04		Jaswal	OK
50	Q3412-04MSD	TP-6MSD	MSD	10/23/25 17:08		Jaswal	OK
51	Q3412-04A	TP-6A	PS	10/23/25 17:12	0.1 ML OF M6008 AND M6017 IN 10ML SAMPLE.	Jaswal	OK
52	Q3406-02	ARS20-0037	SAM	10/23/25 17:16		Jaswal	OK
53	CCV05	CCV05	CCV	10/23/25 17:21		Jaswal	OK
54	CCB05	CCB05	CCB	10/23/25 17:25		Jaswal	OK
55	PB170185BL	PB170185BL	MB	10/23/25 17:30		Jaswal	OK
56	PB170185BS	PB170185BS	LCS	10/23/25 17:34		Jaswal	OK
57	Q3385-04	EFF-WW	SAM	10/23/25 17:38		Jaswal	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 # LB137630

Review By	Janvi	Review On	10/28/2025 12:32:41 PM
Supervise By	jaswal	Supervise On	10/28/2025 3:14:16 PM

STD. NAME	STD REF.#
ICAL Standard	MP87637,MP87643,MP87641,MP87640,MP87639,MP87638
ICV Standard	MP87644,MP87643
CCV Standard	MP87647
ICSA Standard	MP87645,MP87646
CRI Standard	MP87643
LCS Standard	
Chk Standard	MP87668,MP87648,MP87651,MP87649,MP87650

58	Q3385-04DUP	EFF-WWDUP	DUP	10/23/25 17:42		Jaswal	OK
59	Q3385-04L	EFF-WWL	SD	10/23/25 17:46		Jaswal	OK
60	Q3385-05	EFF-WWMS	MS	10/23/25 17:51		Jaswal	OK
61	Q3385-06	EFF-WWMSD	MSD	10/23/25 17:55		Jaswal	OK
62	Q3385-04A	EFF-WWA	PS	10/23/25 17:59	0.1 ML OF M6008 AND M6017 IN 10ML SAMPLE.	Jaswal	OK
63	Q3412-01	TP-6	SAM	10/23/25 18:03		Jaswal	OK
64	Q3412-01DUP	TP-6DUP	DUP	10/23/25 18:07		Jaswal	OK
65	CCV06	CCV06	CCV	10/23/25 18:11		Jaswal	OK
66	CCB06	CCB06	CCB	10/23/25 18:15		Jaswal	OK
67	Q3412-01L	TP-6L	SD	10/23/25 18:19		Jaswal	OK
68	Q3412-01MS	TP-6MS	MS	10/23/25 18:23		Jaswal	OK
69	Q3412-01MSD	TP-6MSD	MSD	10/23/25 18:27		Jaswal	OK
70	Q3412-01A	TP-6A	PS	10/23/25 18:31	0.1 ML OF M6008 AND M6017 IN 10ML SAMPLE.	Jaswal	OK
71	PB170224BL	PB170224BL	MB	10/23/25 18:35		Jaswal	OK
72	PB170224BS	PB170224BS	LCS	10/23/25 18:39		Jaswal	OK
73	Q3427-01	TP-8	SAM	10/23/25 18:43		Jaswal	OK
74	Q3431-01	EO-02-10222025	SAM	10/23/25 18:47		Jaswal	OK
75	Q3431-01DUP	EO-02-10222025DUP	DUP	10/23/25 18:51		Jaswal	OK
76	Q3431-01L	EO-02-10222025L	SD	10/23/25 18:55		Jaswal	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB137630

Review By	Janvi	Review On	10/28/2025 12:32:41 PM
Supervise By	jaswal	Supervise On	10/28/2025 3:14:16 PM

STD. NAME	STD REF.#
ICAL Standard	MP87637,MP87643,MP87641,MP87640,MP87639,MP87638
ICV Standard	MP87644,MP87643
CCV Standard	MP87647
ICSA Standard	MP87645,MP87646
CRI Standard	MP87643
LCS Standard	
Chk Standard	MP87668,MP87648,MP87651,MP87649,MP87650

77	CCV07	CCV07	CCV	10/23/25 18:59		Jaswal	OK
78	CCB07	CCB07	CCB	10/23/25 19:04		Jaswal	OK
79	Q3431-01MS	EO-02-10222025MS	MS	10/23/25 19:08		Jaswal	OK
80	Q3431-01MSD	EO-02-10222025MSD	MSD	10/23/25 19:12		Jaswal	OK
81	Q3431-01A	EO-02-10222025A	PS	10/23/25 19:16	0.1 ML OF M6008 AND M6017 IN 10ML SAMPLE.	Jaswal	OK
82	Q3439-01	TP-9	SAM	10/23/25 19:19		Jaswal	OK
83	Q3439-05	TP-10	SAM	10/23/25 19:23		Jaswal	OK
84	PB170214BL	PB170214BL	MB	10/23/25 19:27		Jaswal	OK
85	PB170214BS	PB170214BS	LCS	10/23/25 19:32		Jaswal	OK
86	PB170214TB	PB170214TB	MB	10/23/25 19:36		Jaswal	OK
87	PB170223BL	PB170223BL	MB	10/23/25 19:40		Jaswal	OK
88	PB170223BS	PB170223BS	LCS	10/23/25 19:44		Jaswal	OK
89	CCV08	CCV08	CCV	10/23/25 19:48		Jaswal	OK
90	CCB08	CCB08	CCB	10/23/25 19:52		Jaswal	OK
91	PB170202TB	PB170202TB	MB	10/23/25 19:57	Cr Recovery fail	Jaswal	Not Ok
92	Q3414-01	SB-1	SAM	10/23/25 20:01		Jaswal	OK
93	Q3414-02	SB-2	SAM	10/23/25 20:05		Jaswal	OK
94	Q3414-03	SB-3	SAM	10/23/25 20:10		Jaswal	OK
95	Q3414-04	SB-4	SAM	10/23/25 20:14		Jaswal	OK

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Supervise By	jaswal	Supervise On	10/28/2025 3:14:16 PM

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ICAL Standard	MP87637,MP87643,MP87641,MP87640,MP87639,MP87638
ICV Standard	MP87644,MP87643
CCV Standard	MP87647
ICSA Standard	MP87645,MP87646
CRI Standard	MP87643
LCS Standard	
Chk Standard	MP87668,MP87648,MP87651,MP87649,MP87650

96	Q3414-05	SB-5	SAM	10/23/25 20:18		Jaswal	OK
97	Q3414-06	SB-6	SAM	10/23/25 20:22		Jaswal	OK
98	Q3414-07	SB-7	SAM	10/23/25 20:26		Jaswal	OK
99	Q3414-08	SB-8	SAM	10/23/25 20:30		Jaswal	OK
100	Q3414-09	SB-9	SAM	10/23/25 20:35		Jaswal	OK
101	CCV09	CCV09	CCV	10/23/25 20:39		Jaswal	OK
102	CCB09	CCB09	CCB	10/23/25 20:43		Jaswal	OK
103	Q3414-10	SB-10	SAM	10/23/25 20:47		Jaswal	OK
104	Q3414-11	SB-11	SAM	10/23/25 20:52		Jaswal	OK
105	Q3414-12	SB-12	SAM	10/23/25 20:56		Jaswal	OK
106	Q3414-13	SB-13	SAM	10/23/25 21:00		Jaswal	OK
107	Q3427-04	TP-8	SAM	10/23/25 21:04		Jaswal	OK
108	Q3427-04DUP	TP-8DUP	DUP	10/23/25 21:08		Jaswal	OK
109	Q3427-04L	TP-8L	SD	10/23/25 21:13		Jaswal	OK
110	Q3427-04MS	TP-8MS	MS	10/23/25 21:17		Jaswal	OK
111	Q3427-04MSD	TP-8MSD	MSD	10/23/25 21:21		Jaswal	OK
112	Q3427-04A	TP-8A	PS	10/23/25 21:25	0.1 ML OF M6008 AND M6017 IN 10ML SAMPLE.	Jaswal	OK
113	CCV10	CCV10	CCV	10/23/25 21:30		Jaswal	OK
114	CCB10	CCB10	CCB	10/23/25 21:34		Jaswal	OK

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Supervise By	jaswal	Supervise On	10/28/2025 3:14:16 PM

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ICV Standard	MP87644,MP87643
CCV Standard	MP87647
ICSA Standard	MP87645,MP87646
CRI Standard	MP87643
LCS Standard	
Chk Standard	MP87668,MP87648,MP87651,MP87649,MP87650

115	PB170225BL	PB170225BL	MB	10/23/25 21:38	Not use	Jaswal	Not Ok
116	PB170225BS	PB170225BS	LCS	10/23/25 21:42	Not use	Jaswal	Not Ok
117	Q3417-01	101425	SAM	10/23/25 21:46		Jaswal	ReRun
118	Q3420-05	COMPOSITE	SAM	10/23/25 21:50	Not use	Jaswal	Not Ok
119	Q3420-05DUP	COMPOSITEDUP	DUP	10/23/25 21:55	Not use	Jaswal	Not Ok
120	Q3420-05L	COMPOSITEL	SD	10/23/25 21:59	Not use	Jaswal	Not Ok
121	Q3420-05MS	COMPOSITEMS	MS	10/23/25 22:03	Not use	Jaswal	Not Ok
122	Q3420-05MSD	COMPOSITEMSD	MSD	10/23/25 22:08	Not use	Jaswal	Not Ok
123	Q3420-05A	COMPOSITEA	PS	10/23/25 22:12	Not use	Jaswal	Not Ok
124	Q3422-02	PR132-FB2-2025102	SAM	10/23/25 22:16	Not use	Jaswal	Not Ok
125	CCV11	CCV11	CCV	10/23/25 22:20	CCV fail for Fe,K,Na,Tl	Jaswal	OK
126	CCB11	CCB11	CCB	10/23/25 22:24	CCB fail for K,Na	Jaswal	OK
127	Q3434-02	PR132-WC2-2025102	SAM	10/23/25 22:29	Not use	Jaswal	Not Ok
128	CCV12	CCV12	CCV	10/23/25 22:33	CCV fail for Fe,Na	Jaswal	OK
129	CCB12	CCB12	CCB	10/23/25 22:37	CCB fail for K,Na	Jaswal	OK

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TCLP EXTRACTION LOGPAGE

PB170172

SOP ID : M1311-TCLP-16

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 : 40718710

Start Prep Date : 10/21/2025 **Time :** 14:00

End Prep Date : 10/22/2025 **Time :** 07:20

Combination Ratio : 20

ZHE Cleaning Batch : N/A

Initial Room Temperature: 22 °C

Final Room Temperature: 21 °C

TCLP Technician Signature :

Supervisor By :

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	WP114525
HCL-TCLP,1N	N/A	WP114527
HNO3-TCLP,1N	N/A	WP114528
N/A	N/A	W1931,W1934,W3171,W3172
pH Strips	W1940,W1941,W1942	W3166,W1938,W1939,
1 Liter Amber	N/A	90924-08
120ml Plastic bottle	N/A	2738
1:1 HNO3	N/A	MP86978

Extraction Conformance/Non-Conformance Comments:

Matrix spikes are added after fiftration and before preservation. TUMBLER T-1 / T-2 checked,30 rpm. q3412-04 is used for MS-MSD.

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
10/22/25 09:30	TCP Room	SHG. Ext / EXT
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

TCLP EXTRACTION LOGPAGE

PB170172

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
PB170172TB	LEB172	14	N/A	2000	N/A	N/A	N/A	4.94	1.5	T-2
Q3368-06	OUTSIDE-DUMPSTER	01	100.02	2000	N/A	N/A	N/A	5.5	1.0	T-1
Q3368-07	PRESS-SLUDGE	02	100.03	2000	N/A	N/A	N/A	3.5	1.0	T-1
Q3397-04	TP-7-WC	03	100.02	2000	N/A	N/A	N/A	5.6	1.5	T-1
Q3399-02	COMP-ROLLOFF	04	100.02	2000	N/A	N/A	N/A	4.5	1.0	T-1
Q3402-03	41-LA	05	100.03	2000	N/A	N/A	N/A	5.6	1.0	T-1
Q3402-06	41-RA	06	100.02	2000	N/A	N/A	N/A	5.5	1.5	T-1
Q3402-09	41-LB	07	100.01	2000	N/A	N/A	N/A	5.5	1.5	T-1
Q3402-12	41-RB	08	100.02	2000	N/A	N/A	N/A	5.6	1.0	T-1
Q3403-04	MH-18	09	100.03	2000	N/A	N/A	N/A	3.0	1.0	T-1
Q3404-02	MOO-25-0285-0288	10	100.02	2000	N/A	N/A	N/A	4.5	1.5	T-1
Q3404-06	MOO-25-0292	11	100.01	2000	N/A	N/A	N/A	3.0	1.0	T-2
Q3406-02	ARS20-0037	12	100.02	2000	N/A	N/A	N/A	3.5	1.5	T-2
Q3412-04	TP-6	13	100.03	2000	N/A	N/A	N/A	6.2	1.0	T-2

SampleID	ClientID	Sample Weight (g)	Filter Weight (g)	Filtrate (mL)	Filter + Solid (After 100°C)	% solids	% Dry Solids
PB170172TB	LEB172	N/A	N/A	N/A	N/A	N/A	N/A
Q3368-06	OUTSIDE-DUMPSTER	N/A	N/A	N/A	N/A	100	N/A
Q3368-07	PRESS-SLUDGE	N/A	N/A	N/A	N/A	100	N/A
Q3397-04	TP-7-WC	N/A	N/A	N/A	N/A	100	N/A
Q3399-02	COMP-ROLLOFF	N/A	N/A	N/A	N/A	100	N/A
Q3402-03	41-LA	N/A	N/A	N/A	N/A	100	N/A
Q3402-06	41-RA	N/A	N/A	N/A	N/A	100	N/A
Q3402-09	41-LB	N/A	N/A	N/A	N/A	100	N/A
Q3402-12	41-RB	N/A	N/A	N/A	N/A	100	N/A
Q3403-04	MH-18	N/A	N/A	N/A	N/A	100	N/A
Q3404-02	MOO-25-0285-0288	N/A	N/A	N/A	N/A	100	N/A
Q3404-06	MOO-25-0292	N/A	N/A	N/A	N/A	100	N/A
Q3406-02	ARS20-0037	N/A	N/A	N/A	N/A	100	N/A
Q3412-04	TP-6	N/A	N/A	N/A	N/A	100	N/A

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TCLP Fluid Determination

PB170172

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
PB170172TB	LEB172	N/A	N/A	N/A	N/A	#1	4.94
Q3368-06	OUTSIDE-DUMPSTER	5.02	96.5	7.0	2.5	#1	4.94
Q3368-07	PRESS-SLUDGE	5.01	96.5	5.5	1.5	#1	4.94
Q3397-04	TP-7-WC	5.03	96.5	7.6	2.5	#1	4.94
Q3399-02	COMP-ROLLOFF	5.02	96.5	7.0	2.0	#1	4.94
Q3402-03	41-LA	5.01	96.5	7.6	2.5	#1	4.94
Q3402-06	41-RA	5.02	96.5	7.2	2.0	#1	4.94
Q3402-09	41-LB	5.02	96.5	7.2	2.5	#1	4.94
Q3402-12	41-RB	5.03	96.5	7.2	2.5	#1	4.94
Q3403-04	MH-18	5.02	96.5	5.6	1.5	#1	4.94
Q3404-02	MOO-25-0285-0288	5.03	96.5	6.0	2.0	#1	4.94
Q3404-06	MOO-25-0292	5.02	96.5	5.6	1.5	#1	4.94
Q3406-02	ARS20-0037	5.01	96.5	6.0	2.0	#1	4.94
Q3412-04	TP-6	5.02	96.5	8.6	3.0	#1	4.94

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Prep Standard - Chemical Standard Summary

Order ID : Q3368

Test : TCLP Mercury,TCLPMetals Group2

Prepbatch ID : PB170214,PB170219,

Sequence ID/Qc Batch ID: LB137620,LB137630,LB137630,LB137630,

Standard ID :
MP87148,MP87633,MP87634,MP87635,MP87636,MP87637,MP87638,MP87639,MP87640,MP87641,MP87642,MP87643,MP87644,MP87645,MP87646,MP87647,MP87648,MP87649,MP87650,MP87651,MP87668,MP87685,MP87686,MP87687,MP87688,MP87689,MP87690,MP87691,MP87692,MP87693,MP87694,MP87695,MP87696,MP87697,MP87701,

Chemical ID :
M4916,M5062,M5467,M5501,M5658,M5697,M5748,M5798,M5799,M5800,M5801,M5814,M5820,M5882,M5962,M5969,M5971,M5979,M5985,M5998,M6021,M6023,M6026,M6027,M6028,M6030,M6032,M6058,M6077,M6086,M6128,M6137,M6140,M6142,M6144,M6145,M6151,M6157,M6158,M6159,M6160,M6161,M6163,M6164,M6165,M6171,M6174,M6176,M6177,M6178,M6179,M6182,M6184,M6187,M6196,M6200,M6201,M6209,M6213,W3112,

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
170	1:1HCL	MP87148	09/09/2025	02/17/2026	Sagar Kanani	None	None	Sarabjit Jaswal 09/10/2025

FROM 1250.00000ml of M6151 + 1250.00000ml of W3112 = Final Quantity: 2500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3965	2:1 H2SO4 : HNO3	MP87633	10/17/2025	11/07/2025	Sagar Kanani	None	None	Sarabjit Jaswal 10/28/2025

FROM 1600.00000ml of M6157 + 800.00000ml of M6187 = Final Quantity: 3200.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
65	POTASSIUM PERMANGANATE SOLUTION 5 %	MP87634	10/17/2025	03/31/2026	Sagar Kanani	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 10/28/2025

FROM 100.00000gram of M4916 + 2000.00000ml of W3112 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
66	POTASSIUM PERSULFATE SOLUTION 5 %	MP87635	10/17/2025	02/02/2026	Sagar Kanani	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 10/28/2025

FROM 100.00000ml of M6213 + 2000.00000ml of W3112 = Final Quantity: 2000.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
67	SODIUM CHLORIDE - HYDROXYL- CHLORIDE SOLUTION	MP87636	10/17/2025	02/03/2026	Sagar Kanani	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 10/28/2025

FROM 2000.00000ml of W3112 + 240.00000gram of M5501 + 240.00000ml of M6196 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
902	ICP AES CAL BLK (SO/ICB/CCB)	MP87637	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 125.00000ml of M6200 + 2350.00000ml of W3112 + 25.00000ml of M6187 = Final Quantity: 2500.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
907	ICP AES STD S (S5)	MP87638	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 5.00000ml of M5467 + 5.00000ml of M5820 + 5.00000ml of M5969 + 5.00000ml of M5971 + 5.00000ml of M5998 + 5.00000ml of M6077 + 5.00000ml of M6160 + 5.00000ml of M6174 + 5.00000ml of M6176 + 455.00000ml of MP87637 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
910	ICP AES STD S4	MP87639	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 50.00000ml of MP87637 + 50.00000ml of MP87638 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
909	ICP AES STD S3	MP87640	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 25.00000ml of MP87638 + 75.00000ml of MP87637 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3913	ICP AES STD S2	MP87641	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 16.00000ml of MP87638 + 184.00000ml of MP87637 = Final Quantity: 200.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2950	ICP AES S1/CRI STOCK STD	MP87642	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 0.03000ml of M5798 + 0.03000ml of M6028 + 0.05000ml of M5658 + 0.05000ml of M6030 + 0.05000ml of M6140 + 0.05000ml of M6159 + 0.06000ml of M6177 + 0.10000ml of M5697 + 0.10000ml of M5801 + 0.10000ml of M5820 + 0.10000ml of M5962 + 0.10000ml of M5969 + 0.10000ml of M5971 + 0.10000ml of M6128 + 0.10000ml of M6176 + 0.15000ml of M5800 + 0.20000ml of M5799 + 0.20000ml of M5979 + 0.20000ml of M6021 + 0.20000ml of M6023 + 0.20000ml of M6027 + 0.20000ml of M6145 + 0.25000ml of M5467 + 0.25000ml of M6160 + 0.50000ml of M5814 + 0.50000ml of M6032 + 1.00000ml of M6086 + 1.00000ml of M6142 + 1.00000ml of M6144 + 1.00000ml of M6171 + 1.00000ml of M6178 + 2.00000ml of M6137 + 89.03000ml of MP87637 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2951	ICP AES S1/CRI WORK STD	MP87643	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 2.00000ml of MP87642 + 98.00000ml of MP87637 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4163	NEW ICV-060925	MP87644	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 0.20000ml of M6058 + 0.40000ml of M6163 + 0.40000ml of M6164 + 0.40000ml of M6165 + 48.60000ml of MP87637 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
904	ICP AES ICSA SOLN	MP87645	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 25.00000ml of M6182 + 225.00000ml of MP87637 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
3494	ICP AES ICSAB SOLN-1	MP87646	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 0.10000ml of M6077 + 10.00000ml of M6182 + 10.00000ml of M6184 + 79.90000ml of MP87637 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
911	ICP AES CCV SOLN	MP87647	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 50.00000ml of MP87637 + 50.00000ml of MP87638 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
903	ICP AES RINSE SOLN	MP87648	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 200.00000ml of M6187 + 9800.00000ml of W3112 = Final Quantity: 10000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4226	LR-2	MP87649	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 13.50000ml of M6140 + 9.00000ml of M6142 + 9.50000ml of M6159 + 18.00000ml of MP87637 = Final Quantity: 50.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4227	LR-3	MP87650	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 1.15000ml of M6026 + 1.25000ml of M5658 + 1.25000ml of M5748 + 1.50000ml of M6145 + 2.50000ml of M5697 + 2.50000ml of M6128 + 39.85000ml of MP87637 = Final Quantity: 50.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
4225	LR-1	MP87651	10/17/2025	11/17/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 11.50000ml of M6086 + 11.50000ml of M6144 + 11.50000ml of M6171 + 15.50000ml of MP87637 = Final Quantity: 50.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
919	ICP AES INTERNAL STD	MP87668	10/17/2025	11/11/2025	Janvi Patel	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 10/28/2025

FROM 1.00000ml of M6179 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M6187 = Final Quantity: 2000.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
871	MERCURY INTERMEDIATE B 250PPB WORKING STD.	MP87685	10/22/2025	10/23/2025	Mohan Bera	None	METALS_PIPETTE_5 (HG A)	Sarabjit Jaswal 10/28/2025

FROM 1.00000ml of M6187 + 2.50000ml of M5062 + 96.50000ml of W3112 = Final Quantity: 100.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1340	Hg 0.00 PPB STD	MP87686	10/22/2025	10/23/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 10/28/2025

FROM 2.50000ml of M6187 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1341	Hg 0.2 PPB STD	MP87687	10/22/2025	10/23/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 10/28/2025

FROM 2.50000ml of M6187 + 247.30000ml of W3112 + 0.20000ml of MP87685 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1342	Hg 2.5 PPB STD	MP87688	10/22/2025	10/23/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 10/28/2025

FROM 2.50000ml of M6187 + 245.00000ml of W3112 + 2.50000ml of MP87685 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1343	Hg 5.0 PPB STD	MP87689	10/22/2025	10/23/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 10/28/2025

FROM 2.50000ml of M6187 + 242.50000ml of W3112 + 5.00000ml of MP87685 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1344	Hg 7.5 PPB STD	MP87690	10/22/2025	10/23/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 10/28/2025

FROM 2.50000ml of M6187 + 240.00000ml of W3112 + 7.50000ml of MP87685 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1345	Hg 10.0 PPB STD	MP87691	10/22/2025	10/23/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 10/28/2025

FROM 2.50000ml of M6187 + 237.50000ml of W3112 + 10.00000ml of MP87685 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1346	Hg ICV SOLUTION	MP87692	10/22/2025	10/23/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 10/28/2025

FROM 2.50000ml of M6161 + 2.50000ml of M6187 + 245.00000ml of W3112 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1351	ICB (Hg 0.00 PPB SOLUTION)	MP87693	10/22/2025	10/23/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 10/28/2025

FROM 2.50000ml of M6187 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1358	CCV (Hg 5.0 PPB SOLUTION)	MP87694	10/22/2025	10/23/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 10/28/2025

FROM 485.00000ml of W3112 + 5.00000ml of M6187 + 10.00000ml of MP87685 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1352	CCB (Hg 0.00 PPB SOLUTION)	MP87695	10/22/2025	10/23/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 10/28/2025

FROM 495.00000ml of W3112 + 5.00000ml of M6187 = Final Quantity: 500.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1349	CRA/CRI (Hg 0.2 PPB SOLUTION)	MP87696	10/22/2025	10/23/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 10/28/2025

FROM 2.50000ml of M6187 + 247.50000ml of W3112 + 0.20000ml of MP87685 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1350	CHK STD (Hg 7.0 PPB SOLUTION)	MP87697	10/22/2025	10/23/2025	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 10/28/2025

FROM 2.50000ml of M6187 + 240.50000ml of W3112 + 7.00000ml of MP87685 = Final Quantity: 250.000 ml

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Metals STANDARD PREPARATION LOG

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
68	STANNOUS CHLORIDE SOLUTION	MP87701	10/23/2025	10/24/2025	Sagar Kanani	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 10/28/2025

FROM 450.00000ml of W3112 + 50.00000gram of M5882 + 50.00000ml of M6200 = Final Quantity: 500.000 ml

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3227-05 / Potassium Permanganate (2.5kg)	210800	03/31/2026	11/30/2022 / mohan	07/28/2021 / mohan	M4916

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	MSHG-10PPM / MERCURY HCl 125mL 10ug/mL	S2-HG709270	09/22/2026	05/28/2022 / mohan	01/27/2022 / mohan	M5062

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57058 / Cerium, 1000PPM, 100ML	020623	02/06/2026	03/06/2023 / bin	03/01/2023 / bin	M5467

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3624-05 / Sodium Chloride, Crystal (cs/4x2.5kg)	0000281938	07/06/2026	07/24/2023 / mohan	04/14/2023 / mohan	M5501

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58024 / Chromium, Cr, 500 ml, 1000 PPM	060523	06/05/2026	08/28/2023 / jaswal	08/25/2023 / jaswal	M5658

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	102523	10/25/2026	04/03/2024 / jaswal	10/27/2023 / jaswal	M5697

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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.	57004 / Be, 1000 PPM, 125 ml	102523	10/25/2026	02/09/2024 / bin	02/09/2024 / bin	M5798

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57050 / Sn, 1000 PPM, 125 ml	071123	07/11/2026	02/09/2024 / bin	02/09/2024 / bin	M5799

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57027 / CO, 1000 PPM, 125 ml	091923	09/19/2026	05/31/2024 / bin	02/09/2024 / bin	M5800

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57033 / As, 1000 PPM, 125 ml	111323	11/13/2026	02/09/2024 / bin	02/09/2024 / bin	M5801

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57005 / B, 1000 PPM, 125 ml	071123	07/11/2026	03/26/2024 / Sohil	01/03/2024 / jaswal	M5814

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57015 / P, 1000 PPM, 125 ml	091123	09/11/2026	05/01/2024 / jaswal	02/09/2024 / jaswal	M5820

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3980-01 / Stannous Chloride (cs/4x500g)	232820	08/31/2028	04/30/2024 / mohan	04/25/2024 / mohan	M5882

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57034 / Se, 1000 PPM, 125 ml	060624	06/06/2027	07/02/2024 / Jaswal	06/14/2024 / Jaswal	M5962

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57016 / S, 1000 PPM, 125 ml	122923	03/31/2026	03/31/2025 / kareem	06/11/2024 / Jaswal	M5969

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57003 / Li, 1000 PPM, 125 ml	061224	06/21/2027	06/06/2025 / Janvi	07/01/2024 / Jaswal	M5971

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	08/05/2026	08/06/2025 / Janvi	02/22/2024 / Jaswal	M5979

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGIN10-5 / INDIUM 1 x 500 ml	U2-IN729349	02/21/2028	10/08/2024 / Jaswal	06/14/2024 / Jaswal	M5985

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-3 / CLP CAL SOLUTION #3, 125mL	T2-MEB727800	07/30/2026	07/30/2025 / Janvi	02/22/2024 / kareem	M5998

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57023 / V, 1000 PPM, 125 ml	062424	06/24/2027	09/28/2024 / jaswal	08/05/2024 / Jaswal	M6021

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57081 / Tl, 1000 PPM, 125 ml	0624724	06/27/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6023

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57182 / Pb, 10000 PPM, 125 ml	110923	11/09/2026	12/05/2024 / janvi	08/05/2024 / Jaswal	M6026

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57028 / Ni, 1000 PPM, 125 ml	062024	06/20/2027	06/04/2025 / Janvi	08/05/2024 / Jaswal	M6027

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57048 / Cd, 1000 PPM, 125 ml	070124	07/01/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6028

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57047 / Ag, 1000 PPM, 125 ml	122823	12/28/2026	08/05/2024 / kareem	08/05/2024 / Jaswal	M6030

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57056 / Ba, 1000 PPM, 125 ml	010924	01/09/2027	01/14/2025 / Jaswal	08/05/2024 / Jaswal	M6032

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CHEM-QC-4 / CHEM-QC-4, Second Source, 1000 ug/ml, B, Mo, Si, Sn, Ti	V2-MEB746173	01/29/2026	01/29/2025 / JANVI	08/22/2024 / Jaswal	M6058

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	Z9651Q / CHEM-CLP-4/.25L	V2-MEB746762	09/06/2029	01/23/2025 / kareem	09/19/2024 / kareem	M6077

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58120 / Calcium, 500 ml, 10000 PPM	082324	08/23/2027	03/06/2025 / JANVI	10/14/2024 / jaswal	M6086

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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.	58126 / Fe, 10000 PPM, 500 ml	011025	01/10/2028	06/25/2025 / Janvi	01/13/2025 / Jaswal	M6140

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58119 / K, 10000 PPM, 500 ml	103024	10/30/2027	05/06/2025 / JANVI	01/13/2025 / Jaswal	M6142

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58111 / Na, 10000 PPM, 500 ml	072424	07/24/2027	01/23/2025 / kareem	01/13/2025 / Jaswal	M6144

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58030 / Zinc, Zn, 500 ml, 1000 PPM	121724	12/17/2027	02/04/2025 /	01/13/2025 / Jaswal	M6145

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	22G2862015	02/17/2026	02/18/2025 / Sagar	01/15/2025 / Sagar	M6151

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9673-33 / Sulfuric Acid, Instra-Analyzed (cs/6c2.5L)	24i1262013	11/07/2025	05/07/2025 / RUPESH	02/18/2025 / Mohan	M6157

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	10/30/2025	03/10/2025 / Eman	02/02/2025 / Sagar	M6158

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Al, 10000 PPM, 500 ml	011325	03/18/2026	03/18/2025 / kareem	02/09/2025 / kareem	M6159

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57051 / Sb, 1000 PPM, 125 ml	071724	07/17/2027	03/24/2025 / kareem	10/18/2024 / kareem	M6160

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-5 / ICV (HG) STOCK SOLN	ICV 5 0415	12/31/2025	05/01/2025 / mohan	03/30/2024 / mohan	M6161

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	QCP-CICV-1-125ML / EPA CLP ICP Verification Standard1	V2-MEB744107	06/08/2026	06/09/2025 / jaswal	06/06/2025 / jaswal	M6163

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	QCP-CICV-2-125ML / EPA CLP ICP Verification Standard2	U2-MEB733713	06/08/2026	06/09/2025 / jaswal	06/09/2025 / jaswal	M6164

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	QCP-CICV-3-125ML / EPA CLP ICP Verification Standard3	V2-MEB749572	06/08/2026	06/09/2025 / jaswal	06/09/2025 / jaswal	M6165

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58112 / Mg, 10000 PPM, 500 ml	011525	01/15/2028	07/15/2025 /	02/13/2025 / Janvi	M6171

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-1 / CLP CAL SOLUTION #1, 125mL	V2-MEB742428	07/31/2026	07/31/2025 / Janvi	05/05/2025 / Janvi	M6174

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57038 / Sr, 1000 PPM, 125 ml	092724	09/27/2027	08/06/2025 / Janvi	08/06/2025 / Janvi	M6176

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	031525	03/15/2028	08/06/2025 / Janvi	08/06/2025 / Janvi	M6177

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57042 / Mo, 1000 PPM, 125 ml	080528	08/05/2028	08/06/2025 / Janvi	08/06/2025 / Janvi	M6178

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGY10-1 / YTTRIUM 125mL 10,000ug/mL	V2-Y740548	08/05/2026	08/06/2025 / Janvi	06/02/2024 / Janvi	M6179

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART A / ICSA (ICP) STOCK SOLN	ICSA-1211	02/05/2026	08/06/2025 / Janvi	03/06/2024 / Janvi	M6182

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART B / ICSAB (ICP) STOCK SOLN	ICSB-0710	02/05/2026	08/06/2025 / Janvi	03/06/2024 / Janvi	M6184

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24H0162012	01/28/2026	08/29/2025 / Sagar	08/08/2025 / Sagar	M6187

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Fax : 908 789 8922

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	H330-500 / HYDROXYLAMINE HYDROCHLORIDE ACS 500G	243373	02/03/2026	09/04/2025 / mohan	08/04/2025 / mohan	M6196

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	24D1562005	02/10/2026	09/11/2025 / Sagar	08/25/2025 / Sagar	M6200

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	WW-LFS-2 / Laboratory Fortified Stock Solution 2, 125 ml	V2-MEB743480	10/15/2026	10/15/2025 /	07/20/2025 / janvi	M6201

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	V2-MEB752149	10/15/2026	10/15/2025 / Janvi	07/20/2025 / Janvi	M6209

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)	216224-	02/02/2026	10/08/2025 / Sagar	10/07/2025 / Sagar	M6213

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.

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M6032

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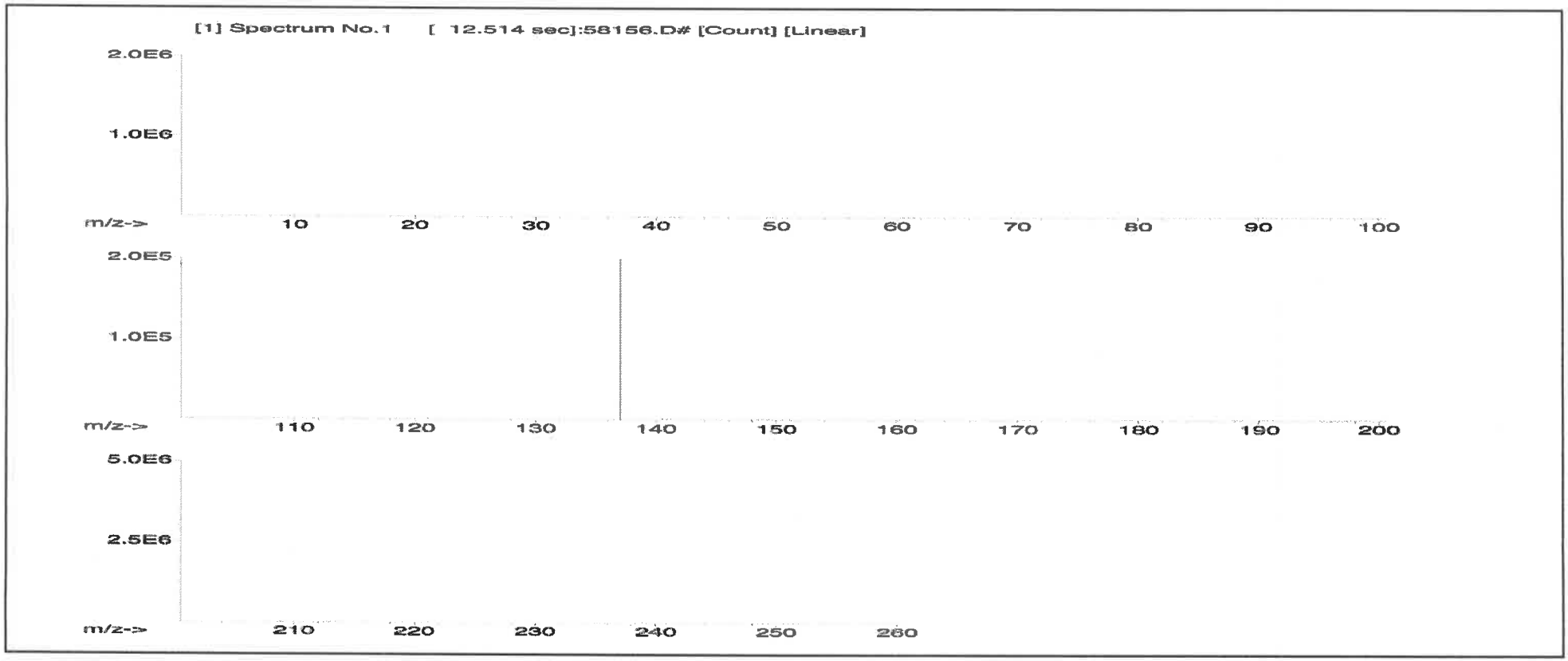
CERTIFIED WEIGHT REPORT:

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).

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Revd 10/14/2024 M6085/M6086/M6087

CERTIFIED WEIGHT REPORT:

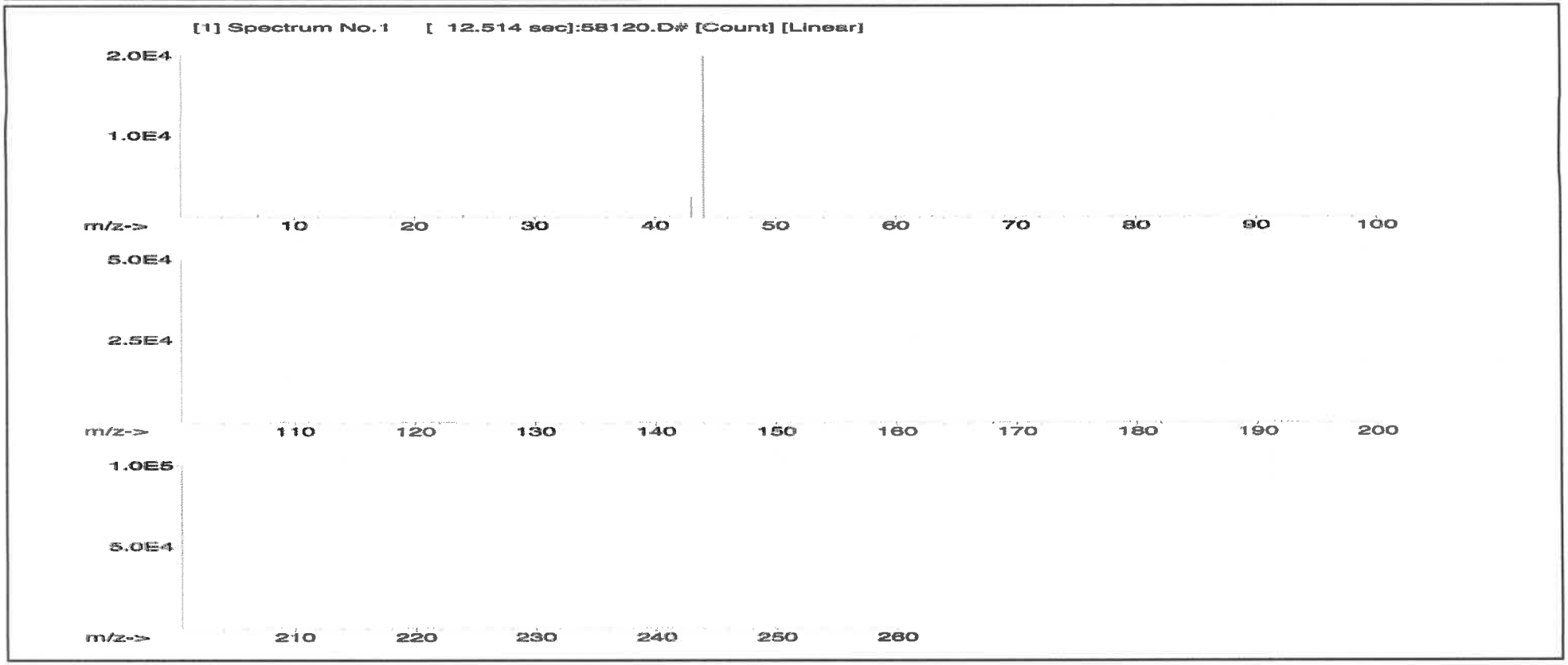
Part Number:	**58120**		**Solvent:**	24002546	Nitric Acid
Lot Number:	**082324**				
Description:	**Calcium (Ca)**		2%	80.0	Nitric Acid
Expiration Date:	082327			(mL)	
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
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.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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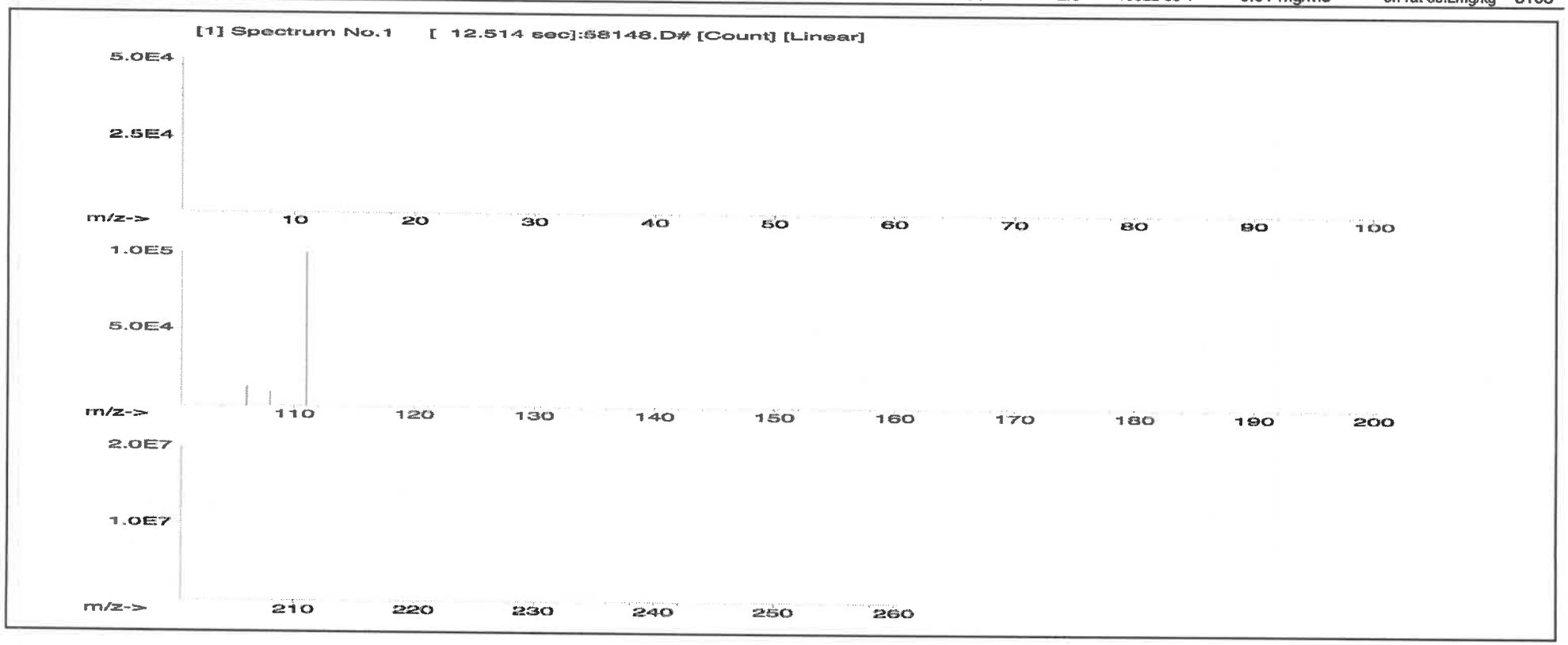
CERTIFIED WEIGHT REPORT:

Part Number:	**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.

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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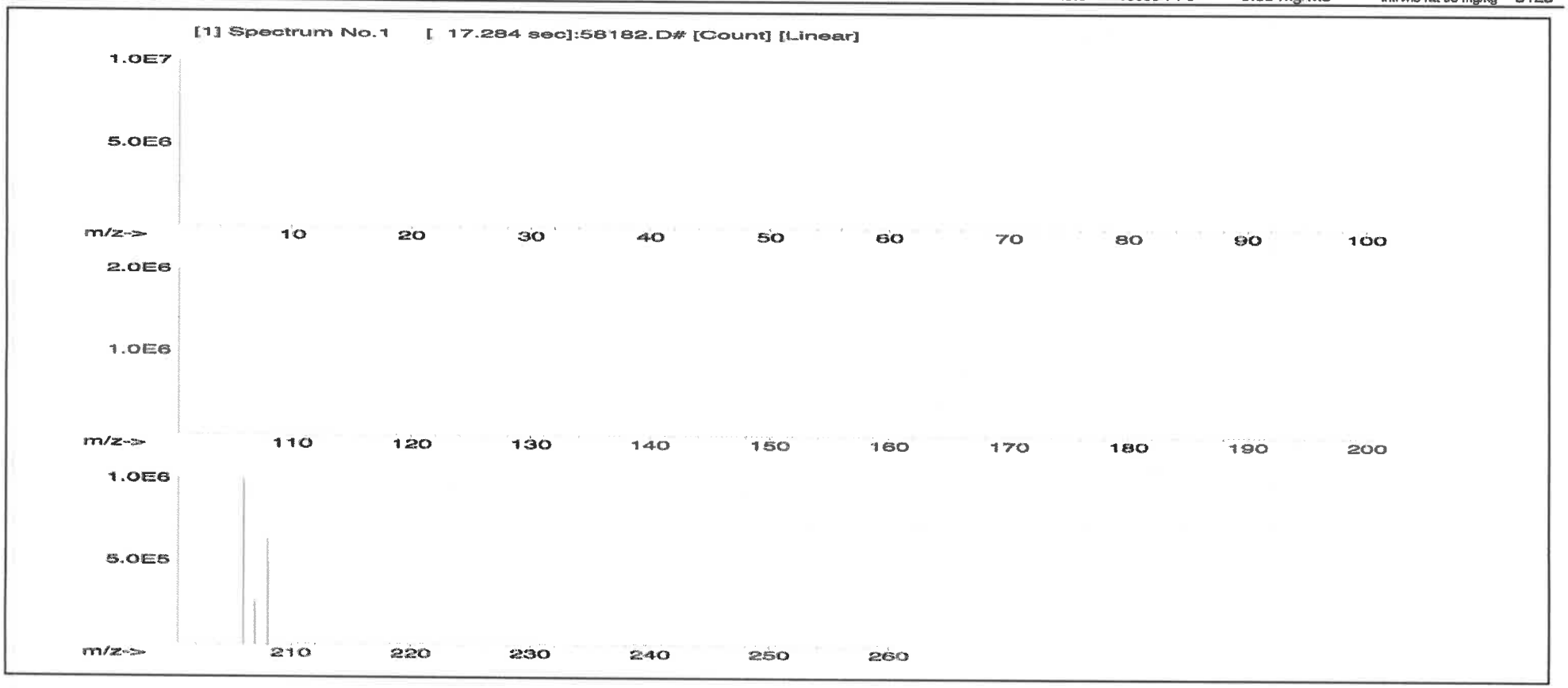
CERTIFIED WEIGHT REPORT:

Part Number:	**57182**			**Lot #**	
Lot Number:	**110923**	**Solvent:**	24002546	Nitric Acid	
Description:	**Lead (Pb)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	110926				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawence Barry	110923
Reviewed By:	Pedro L. Rentas	110923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	10000	99.999	0.10	62.5	32.0006	32.0040	**10001.1**	**20.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

ThermoFisher SCIENTIFIC

M4913-16

MB

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120632

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	P279	Quality Test / Release Date	01/12/2021
Lot Number	210306		
Description	POTASSIUM PERMANGANATE, A.C.S.		
Country of Origin	United States	Suggested Retest Date	Jan/2026

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Dark purple to purple green crystals
ASSAY	%	>= 99	99.3
CHLORIDE & CHLORATE	%	<= 0.005	<0.005
IDENTIFICATION	PASS/FAIL	= PASS TEST	pass test
INSOLUBLE MATTER	%	<= 0.2	<0.2
MERCURY (Hg)	ppm	<= 0.05	<0.004
SULFATE (SO4)	%	<= 0.02	<0.02

Julian Burton

Julian Burton - Quality Control Manager – Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

M5062
M5063
M3

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Mass Spec Solution
Catalog Number:	MSHG-10PPM
Lot Number:	S2-HG709270
Matrix:	10% (v/v) HCl
Value / Analyte(s):	10 µg/mL ea: Mercury
Starting Material:	Hg metal
Starting Material Lot#:	1959
Starting Material Purity:	99.9994%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10.001 ± 0.053 µg/mL

Density: 1.020 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
Hg	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance.

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

O	Ag		0.000011	M	Eu	<	0.000201	O	Na		0.000004	M	Se	<	0.015915	O	Zn	<	0.001510
O	Al		0.000001	O	Fe		0.000001	M	Nb	<	0.000201	O	Si		0.000005	M	Zr	<	0.000201
M	As	<	0.000402	M	Ga	<	0.000201	M	Nd	<	0.000201	M	Sm	<	0.000201				
M	Au	<	0.003631	M	Gd	<	0.000201	M	Ni	<	0.000402	M	Sn	<	0.001007				
M	B	<	0.001208	M	Ge	<	0.000201	M	Os	<	0.000605	M	Sr	<	0.000201				
M	Ba	<	0.000201	M	Hf	<	0.000201	O	P	<	0.032370	M	Ta	<	0.000201				
M	Be	<	0.000201	s	Hg	<		M	Pb	<	0.000201	M	Tb	<	0.000201				
M	Bi	<	0.000201	M	Ho	<	0.000201	M	Pd	<	0.000403	M	Te	<	0.002216				
O	Ca		0.000007	M	In	<	0.000201	M	Pr	<	0.000201	M	Th	<	0.000201				
M	Cd	<	0.000201	M	Ir	<	0.000201	M	Pt	<	0.000402	M	Ti	<	0.000402				
M	Ce	<	0.000201	O	K		0.000020	M	Rb	<	0.000201	O	Tl	<	0.016508				
M	Co	<	0.000201	M	La	<	0.000201	M	Re	<	0.000201	M	Tm	<	0.000201				
O	Cr	<	0.003021	O	Li	<	0.000107	M	Rh	<	0.000201	M	U	<	0.008058				
M	Cs	<	0.001208	M	Lu	<	0.000201	M	Ru	<	0.000201	M	V	<	0.000201				
M	Cu	<	0.000402	O	Mg		0.000001	O	S	<	0.053950	M	W	<	0.000604				
M	Dy	<	0.000201	M	Mn	<	0.000604	M	Sb	<	0.001208	M	Y	<	0.000201				
M	Er	<	0.000201	M	Mo		0.000009	M	Sc	<	0.000201	M	Yb	<	0.000201				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 200.59 +2 4 Hg(OH)(aq) 1+

Chemical Compatibility - Stable in HNO_3. Avoid basic media forming insoluble carbonate. The sulfide, basic carbonate, oxalate, phosphate, arsenite, arsenate and iodide are insoluble in water.

Stability - 2-100 ppb levels not stable in 1% HNO_3 / LDPE container, stable in 10% HNO_3 packaged in borosilicate glass. 1-100 ppm levels stable in 7% HNO_3 packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10% HNO_3 / LDPE container.

Hg Containing Samples (Preparation and Solution) - Metal (soluble in HNO_3); Oxide (Soluble in HNO_3); Ores and Organic based (The literature has more references to the preparation of Hg containing samples than any other element. Please consult the literature for your specific sample type, since such preparations are prone to error. Or e-mail our technical staff and we will contact you to discuss your particular sample preparation questions in further detail.).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 202 amu	9 ppt	n/a	186W16O
ICP-OES 184.950 nm	0.03 / 0.005 µg/mL	1	
ICP-OES 194.227 nm	0.03 / 0.005 µg/mL	1	V
ICP-OES 253.652 nm	0.1 / 0.03 µg/mL	1	Ta, Co, Th ,Rh , Fe, U

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 22, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- September 22, 2026

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation

Certificate Approved By:

Michael Booth
Director, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5467 R: 03/01/23 (LA)

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57058
Lot Number: 020623
Description: Cerium (Ce)

Expiration Date: 020626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

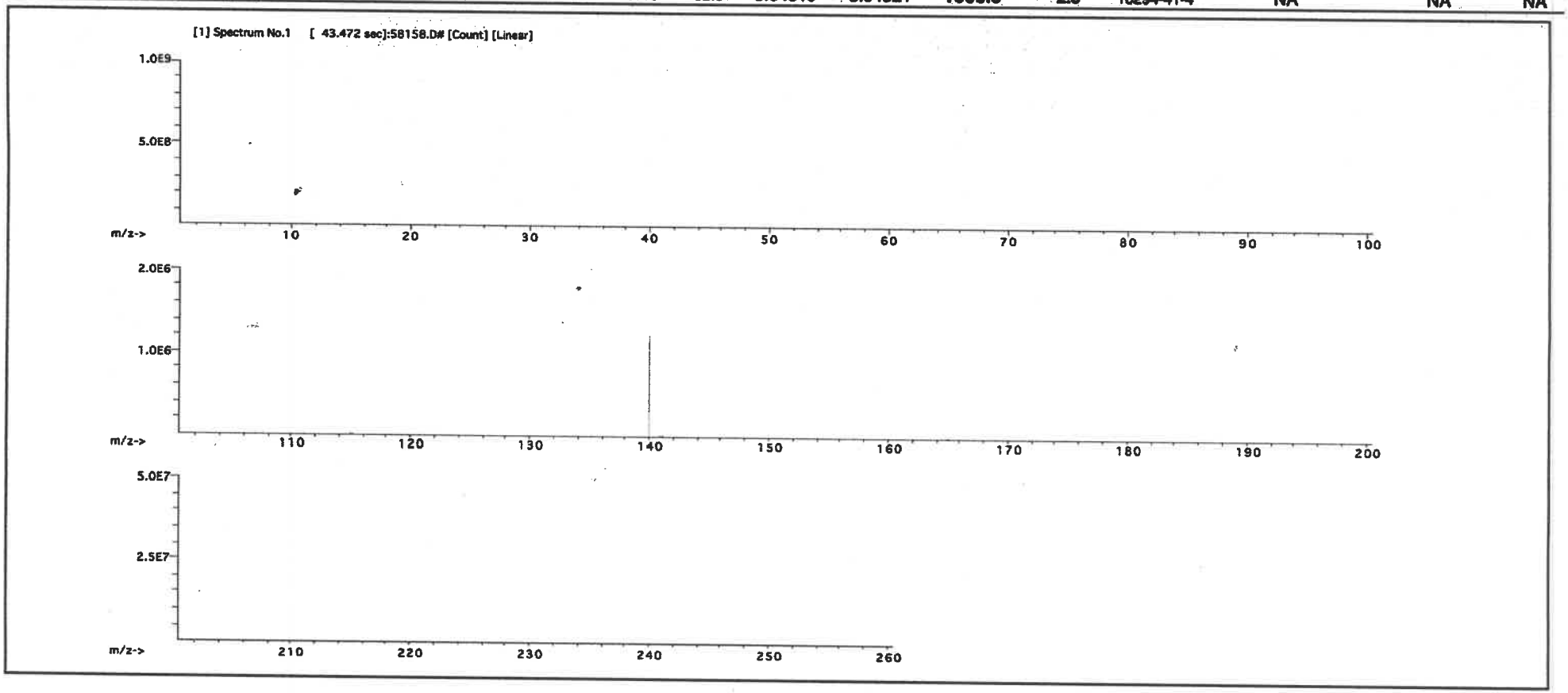
Weight shown below was diluted to (mL): 1000.12 0.058 Flask Uncertainty

		Lot #	
Solvent:	21110221	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	020623
Reviewed By:	Pedro L. Rentas	020623

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cerium nitrate hexahydrate (Ce)	IN146	Z512CEB1	1000	99.999	0.10	32.8	3.04919	3.04921	**1000.0**	**2.0**	10294-41-4	NA	NA	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
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).

Sodium Chloride, Crystal
BAKER ANALYZED® A.C.S. Reagent

M5493 - M5708
Added 4/14/23
JMG

avantor™ | J.T.Baker®

Material No.: 3624-01
Batch No.: 0000281938
Manufactured Date: 2021-06-07
Retest Date: 2026-06-07
Revision No.: 2

Certificate of Analysis

Test	Specification	Result
Assay (NaCl) (by Ag titrn)	≥ 99.0 %	100.0 %
pH of 5% Solution at 25°C	5.0 - 9.0	6.3
Insoluble Matter	≤ 0.005 %	0.003 %
Iodide (I)	≤ 0.002 %	< 0.002 %
Bromide (Br)	≤ 0.01 %	< 0.01 %
Chlorate and Nitrate (as NO_3)	≤ 0.003 %	< 0.001 %
ACS - Phosphate (PO_4)	≤ 5 ppm	< 5 ppm
Sulfate (SO_4)	≤ 0.004 %	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
ACS - Heavy Metals (as Pb)	≤ 5 ppm	< 5 ppm
Iron (Fe)	≤ 2 ppm	< 1 ppm
Calcium (Ca)	≤ 0.002 %	< 0.001 %
Magnesium (Mg)	≤ 0.001 %	< 0.001 %
Potassium (K)	≤ 0.005 %	0.001 %

For Laboratory,Research,or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs
Country of Origin: USA
Packaging Site: Paris Mfg Ctr & DC

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 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

M5658 R ! 8/25/23

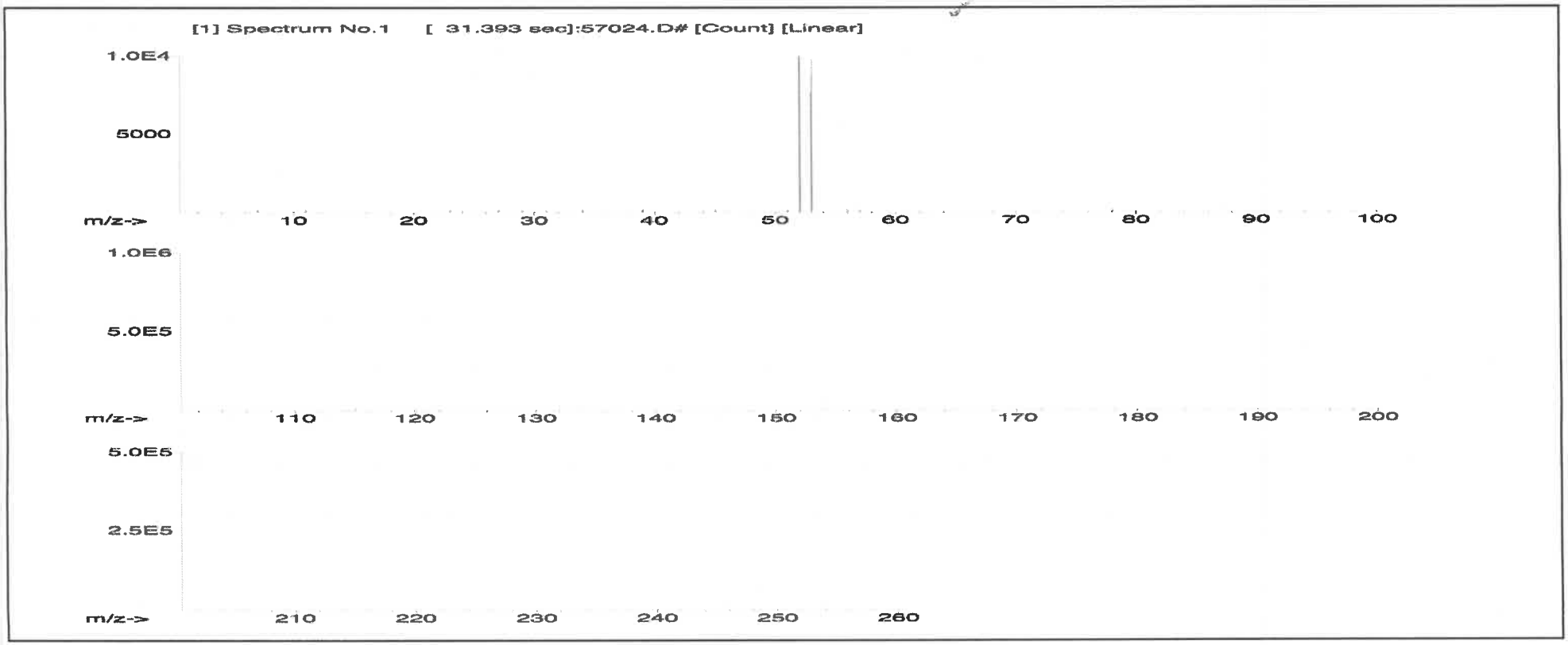
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58024**	21110221	Nitric Acid	
Lot Number:	**060523**			
Description:	**Chromium (Cr)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	060523
Reviewed By:	Pedro L. Rentas	060523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Chromium(III) nitrate nonahydrate (Cr)	58124	071122	0.1000	200.0	0.084	1000	10000.1	**1000.0**	**2.2**	7789-02-8	0.5 mg(Cr)/m3	orl-rat 3250 mg/kg	3112a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	T	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M5697 R: 10/27/23

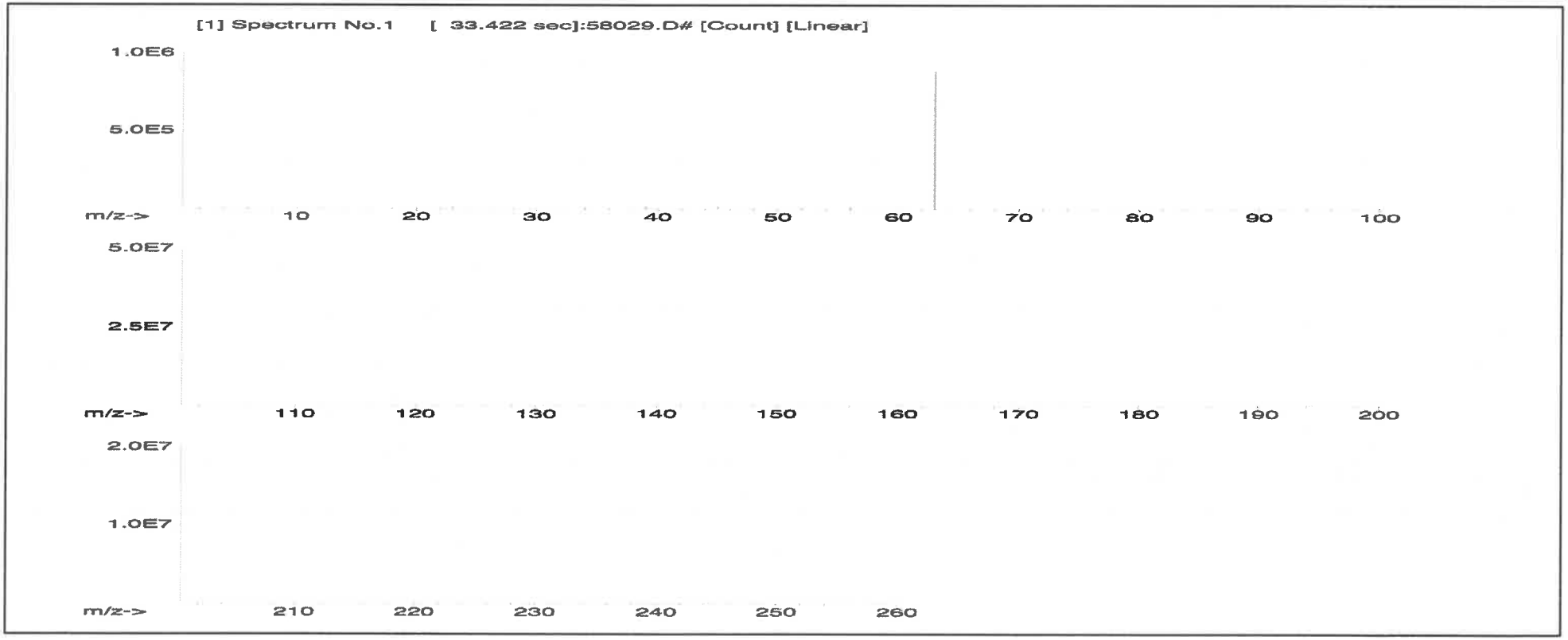
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58029**	24002546	Nitric Acid	
Lot Number:	**102523**			
Description:	**Copper (Cu)**			
		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. Copper(II) nitrate trihydrate (Cu)	58129	100223	0.1000	200.0	0.084	1000	10000.1	**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:

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.
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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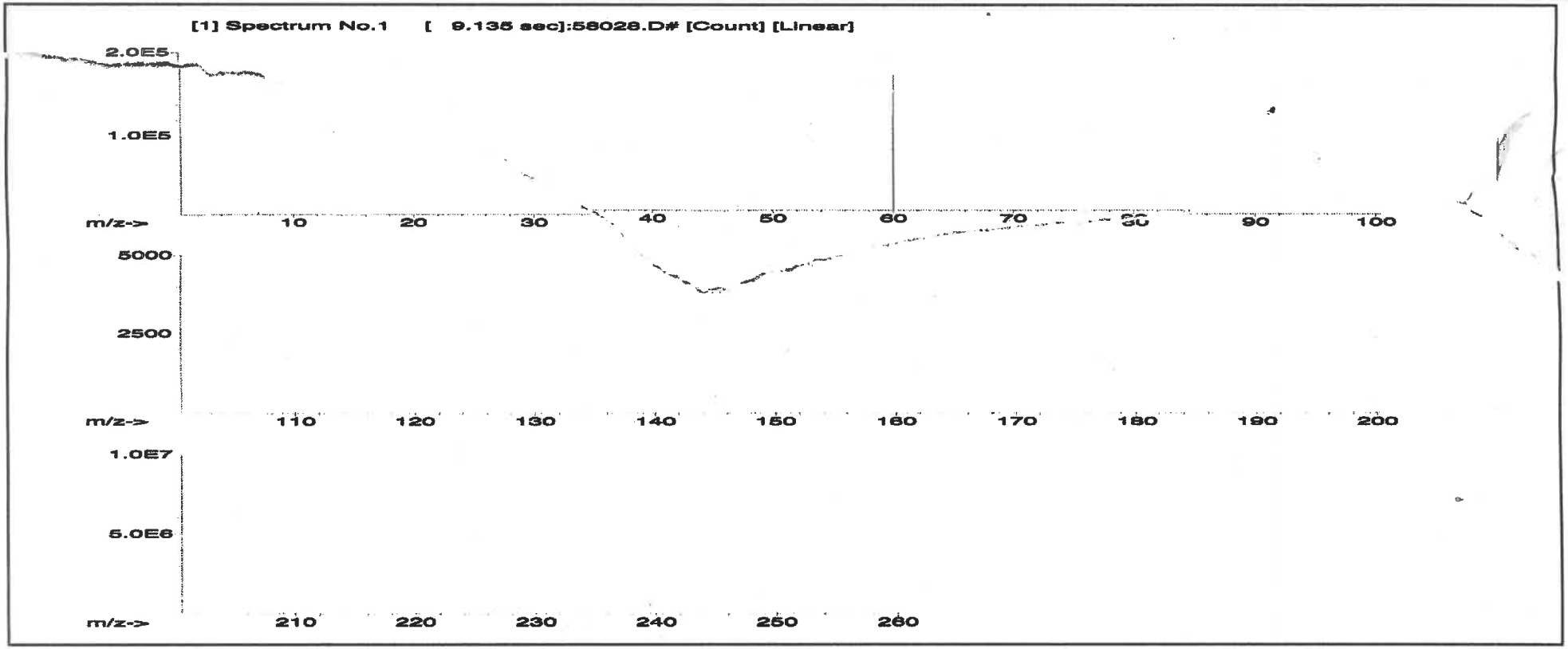
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**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.

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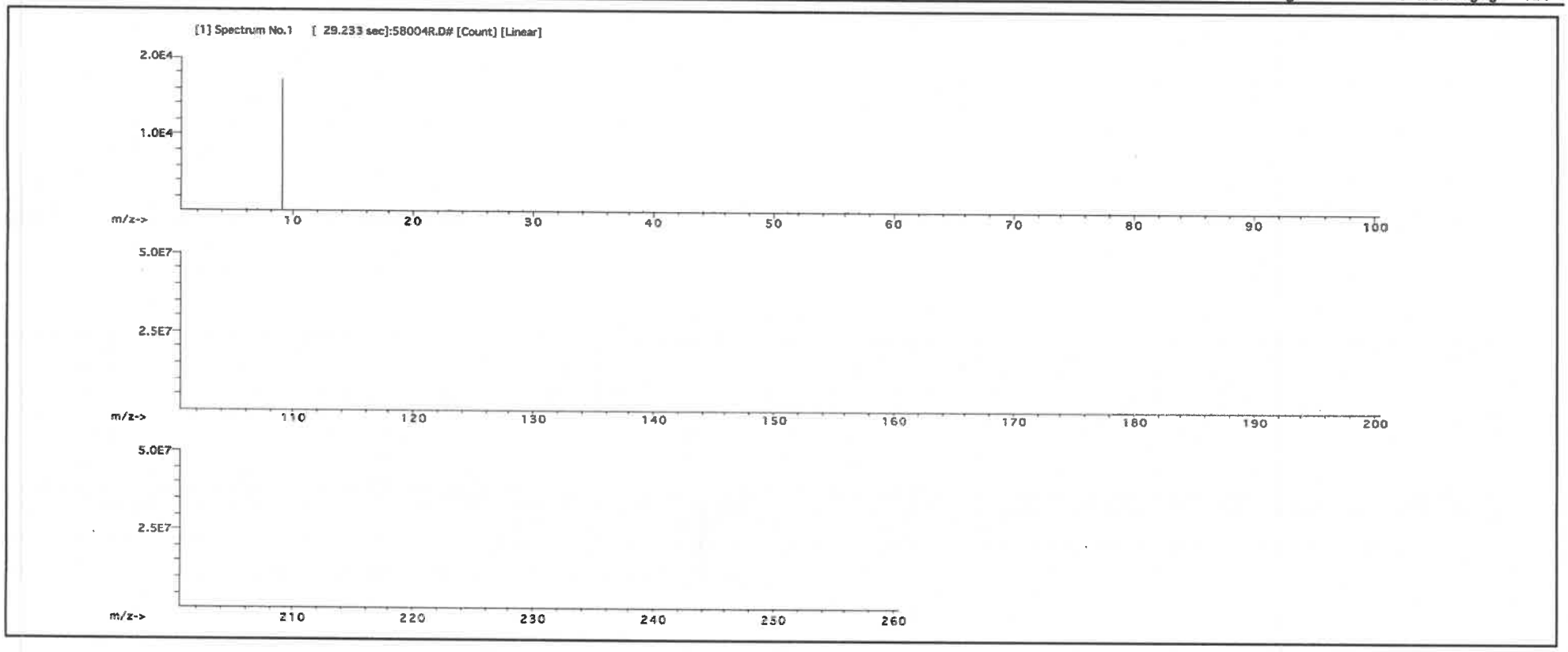
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57004**	24002546	Nitric Acid	
Lot Number:	**102523**			
Description:	**Beryllium (Be)**	2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	102526			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Beryllium nitrate (Be)	58104	091423	0.1000	200.0	0.084	1000	10001.5	**1000.0**	**2.2**	13597-99-4	0.2ug/m3	intrvns-rat 3.16mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	T	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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CERTIFIED WEIGHT REPORT:

Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

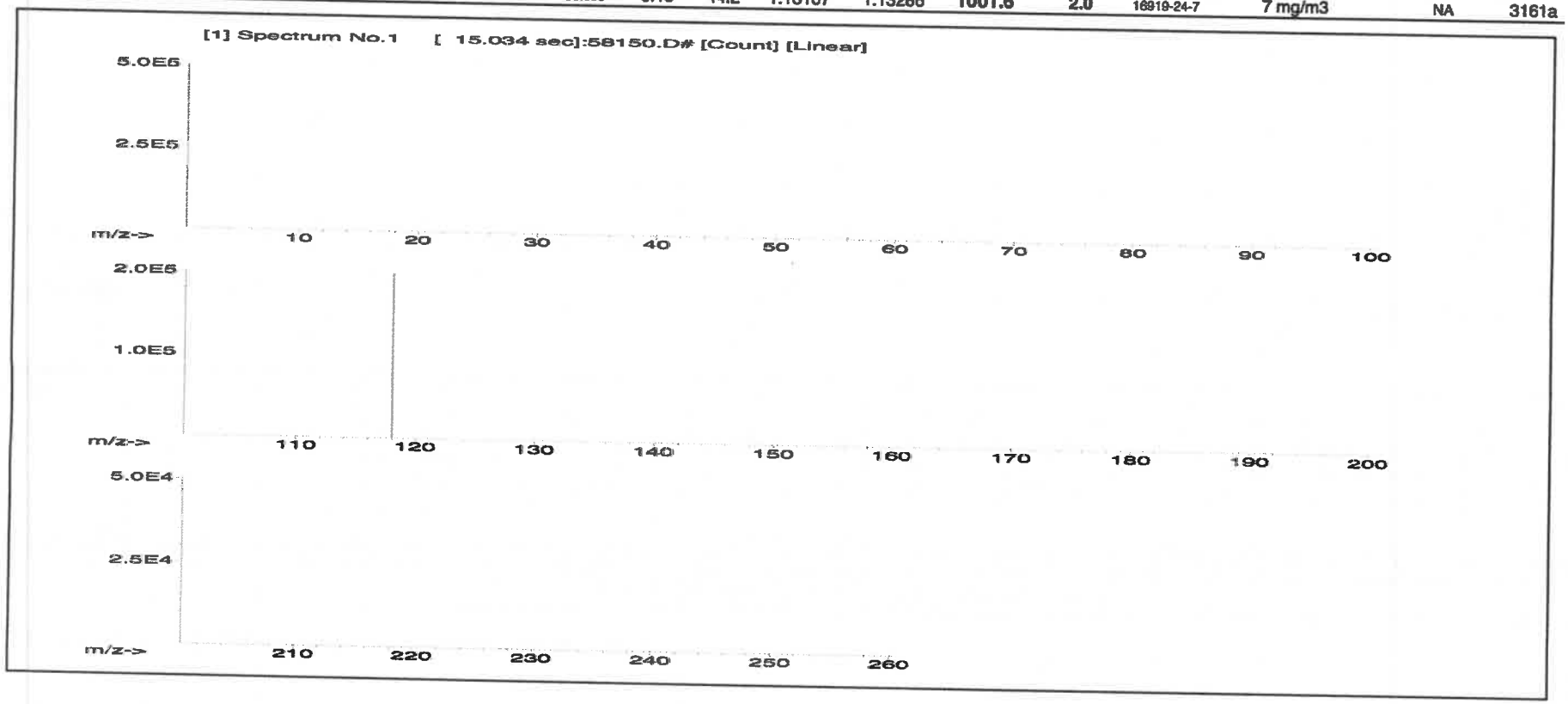
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

	Lot #	
Solvents:	21110221	Nitric Acid
	22D0562008	Hydrochloric acid
2%	10.0	Nitric Acid
6%	30.0	Hydrochloric acid
	(mL)	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Benson Chan	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium hexafluorostannate(IV) (Sn)	IN010	SND042023A1	1000	99.999	0.10	44.2	1.13107	1.13286	**1001.6**	**2.0**	16919-24-7	7 mg/m3	NA	3161a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<500	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	T	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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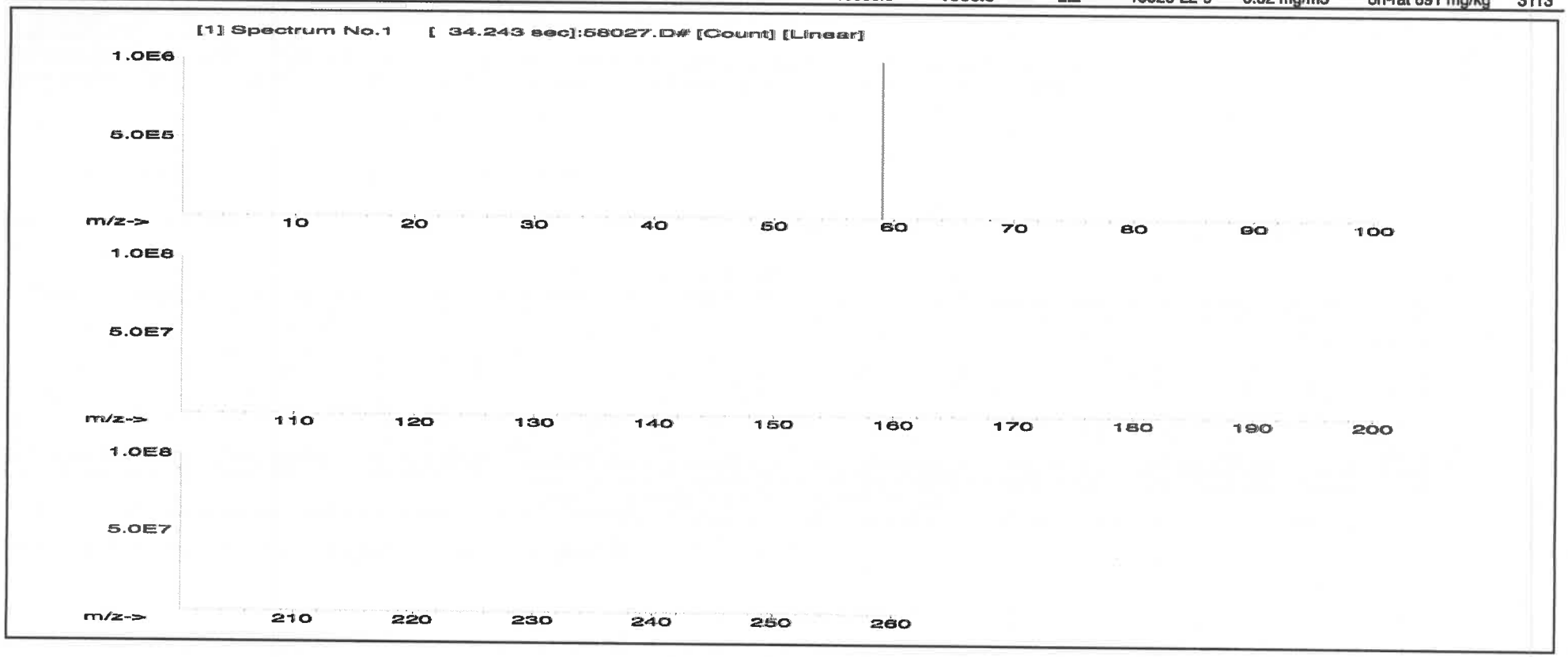
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:		
Part Number:	**57027**	24002546	Nitric Acid		
Lot Number:	**091923**				
Description:	**Cobalt (Co)**	2.0%	40.0 (mL)	Nitric Acid	
Expiration Date:	091926				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	091923
Reviewed By:	Pedro L. Rentas	091923

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cobalt(II) nitrate hexahydrate (Co)	58127	050923	0.1000	200.0	0.084	1000	10000.0	**1000.0**	**2.2**	10026-22-9	0.02 mg/m3	orl-rat 691 mg/kg	3113



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	T	Gé	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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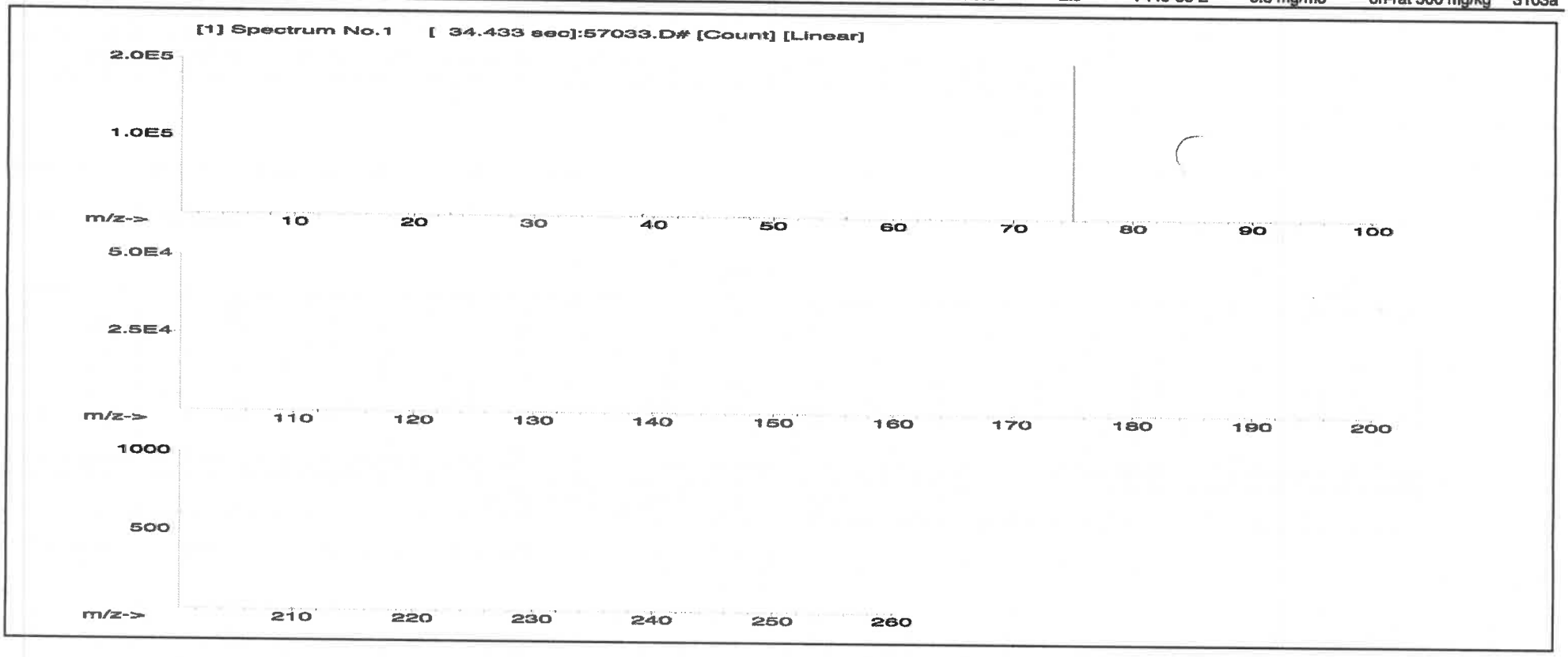
CERTIFIED **WEIGHT** REPORT:

		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.

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A: 02/09/24 M.5814

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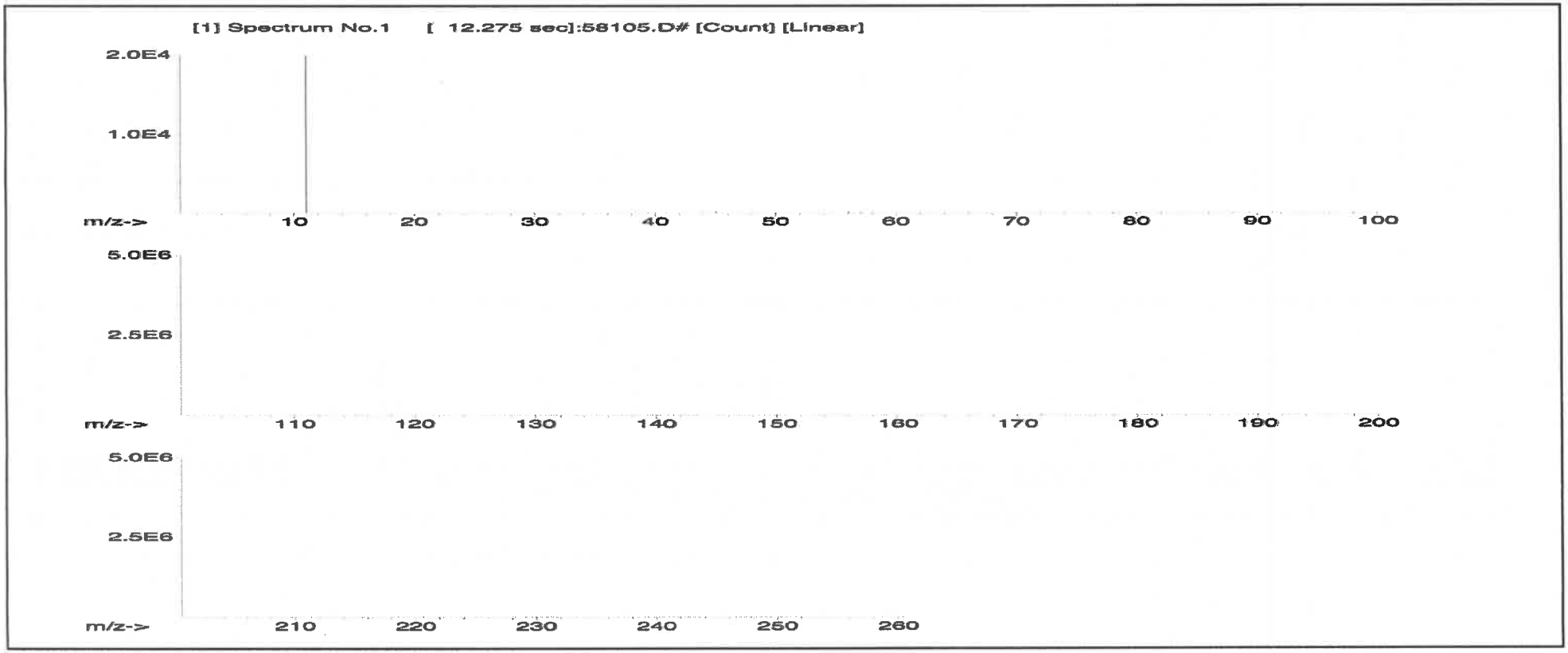
CERTIFIED WEIGHT REPORT:

Part Number:	**57005**		**Solvent:**	MKBQ8597V	Ammonium hydroxide
Lot Number:	**071123**				
Description:	**Boron (B)**		2.0%	40.0 (mL)	Ammonium hydroxide
Expiration Date:	071126				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	1999.48	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Boric acid (B)	IN018	BV092016A1	1000	99.9999	0.10	17.3	11.55772	11.56201	**1000.4**	**2.0**	10043-35-3	2 mg/m3	orl-rat 2660 mg/kg	3107



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	T	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

R: 02/09/24 M5820

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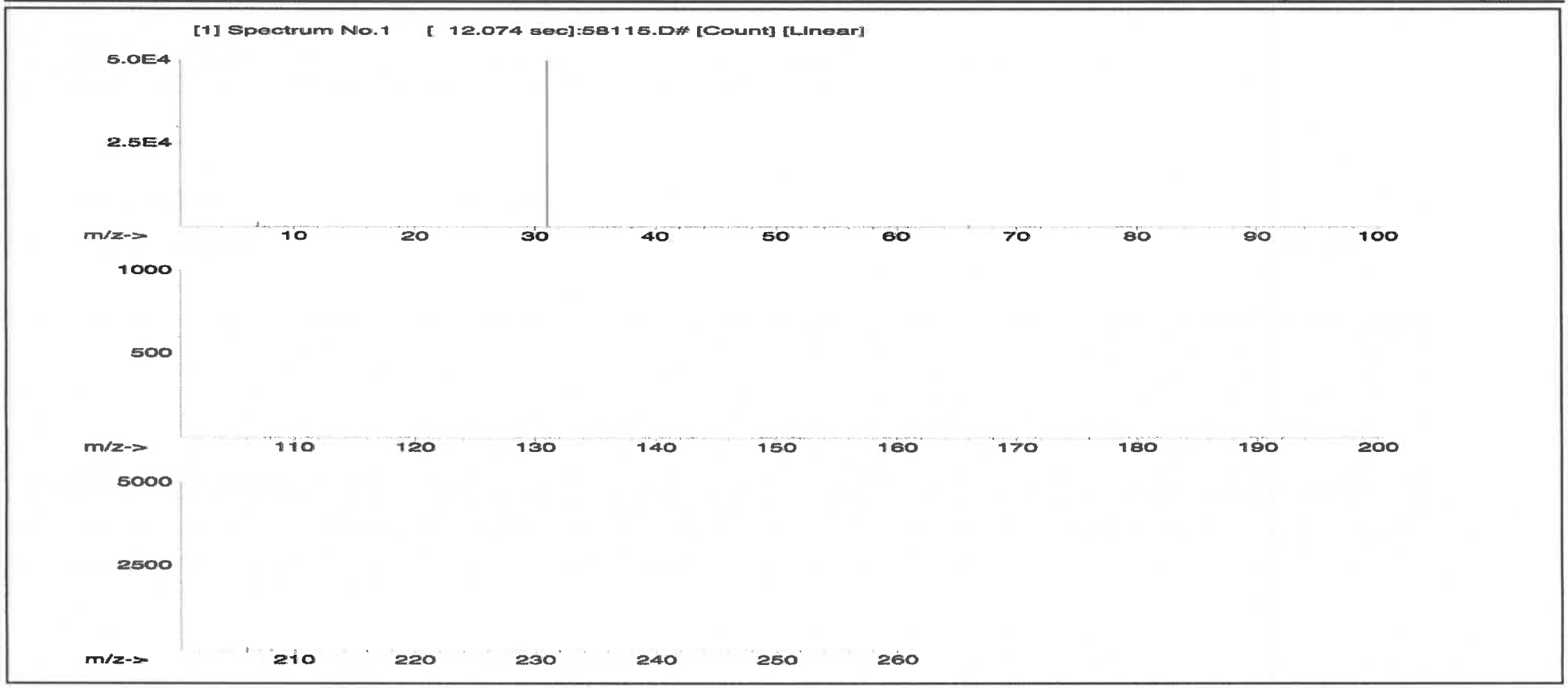
CERTIFIED WEIGHT REPORT:

Part Number:	**57015**		**Lot #**		
Lot Number:	**091123**	**Solvent:**	24002546	Nitric Acid	
Description:	**Phosphorous (P)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	091126				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	091123
Reviewed By:	Pedro L. Rentas	091123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	1000	99.999	0.10	27.5	7.2729	7.2730	**1000.0**	**2.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/k	3186



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5962 R! 06/14/24.

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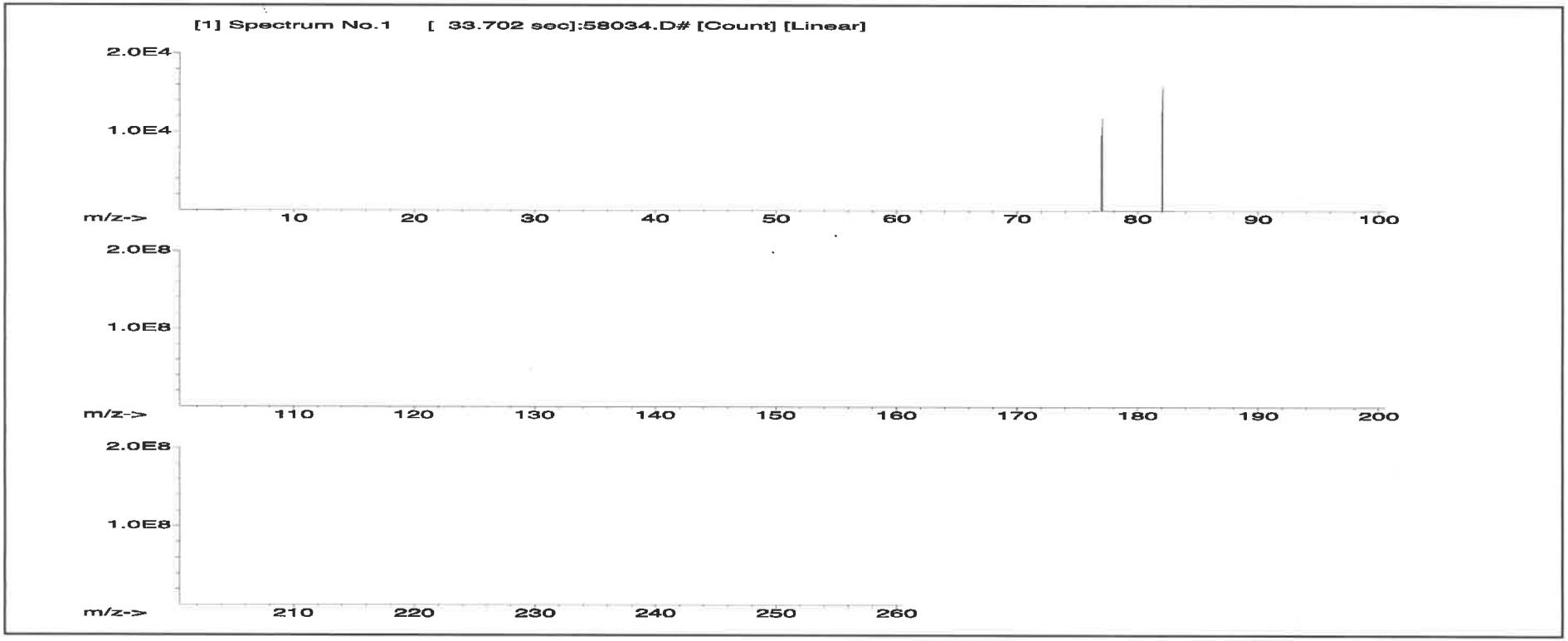
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57034**	24002546	Nitric Acid	
Lot Number:	**060624**			
Description:	**Selenium (Se)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060627			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Formulated By:	Benson Chan	060624
Reviewed By:	Pedro L. Rentas	060624

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Selenium (Se)	58134	071223	0.1000	200.0	0.084	1000	10002.5	**1000.0**	**2.2**	7782-49-2	0.2 mg/m3	orl-rat 6700 mg/kg	3149



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																		
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	T	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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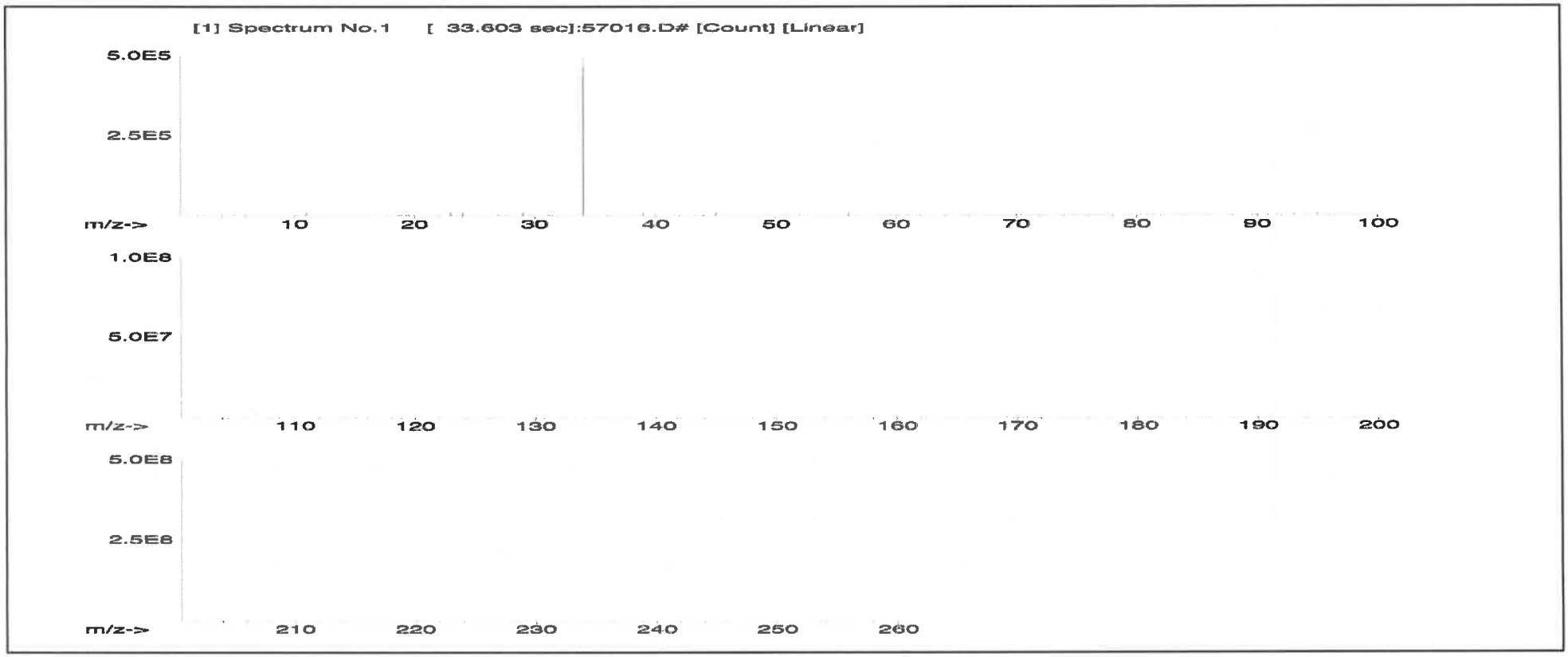
CERTIFIED WEIGHT REPORT:

Part Number:	**57016**	**Solvent:**	122923	ASTM Type 1 Water
Lot Number:	**122923**			
Description:	**Sulfur (S)**			
Expiration Date:	122926			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.0	0.06	Flask Uncertainty	

Lot #

Formulated By:	Benson Chan	122923
Reviewed By:	Pedro L. Rentas	122923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	1000	99.9	0.10	24.3	16.4979	16.4980	**1000.0**	**2.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



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M5970, M5971 R: 7/01/24

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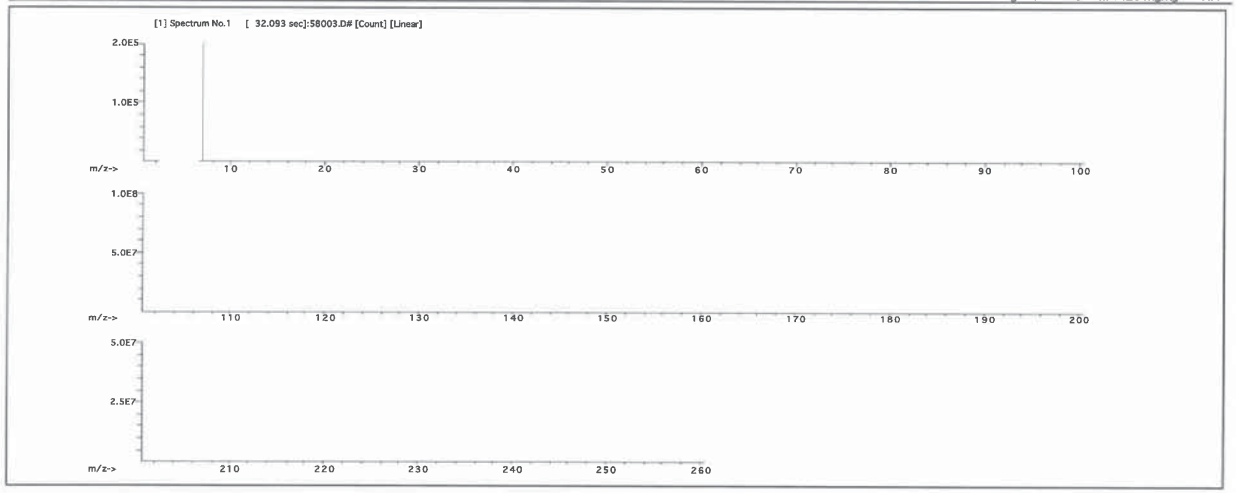
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:
Part Number:	**57003**	24002546	Nitric Acid
Lot Number:	**062124**		
Description:	**Lithium (Li)**		
		2.0%	5.0 (mL) Nitric Acid
Expiration Date:	062127		
Recommended Storage:	Ambient (20 °C)		
Nominal Concentration (µg/mL):	**1000**		
NIST Test Number:	6UTB	5E-05 Balance Uncertainty	
Volume shown below was diluted to (mL):	250.11	0.016 Flask Uncertainty	

Giovanni Esposito
Formulated By: Giovanni Esposito 062124

Pedro Rentas
Reviewed By: Pedro L. Rentas 062124

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lithium nitrate (Li)	58103	070622	0.1000	25.0	0.004	1000	10000.4	**1000.0**	**2.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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M5978, M5979

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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

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- June 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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Certificate of Analysis

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MS985
R: 6/14/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGIN10
Lot Number:	U2-IN729349
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Indium
Starting Material:	Indium Metal
Starting Material Lot#:	2511
Starting Material Purity:	99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL

Density: 1.044 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10021 ± 56 µg/mL** ICP Assay NIST SRM 3124a Lot Number: 110516
Assay Method #2	**10035 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	**10001 ± 33 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000760	M	Eu	<	0.000760	O	Na		0.012771	M	Se	<	0.023000	M	Zn	<	0.006100
M	Al		0.003385	O	Fe		0.004462	M	Nb	<	0.000760	O	Si		0.024619	M	Zr	<	0.000760
M	As	<	0.004600	M	Ga	<	0.000760	M	Nd	<	0.000760	M	Sm	<	0.000760				
M	Au	<	0.002300	M	Gd	<	0.000760	O	Ni	<	0.005100	M	Sn	<	0.000760				
O	B		0.003692	M	Ge	<	0.001600	M	Os	<	0.000760	O	Sr	<	0.000610				
M	Ba	<	0.001600	M	Hf	<	0.000760	n	P	<		M	Ta	<	0.000760				
O	Be	<	0.000130	M	Hg	<	0.003100	M	Pb		0.001400	M	Tb	<	0.000760				
M	Bi	<	0.000760	M	Ho	<	0.000760	M	Pd	<	0.001600	M	Te	<	0.000760				
O	Ca		0.004616	s	In	<		M	Pr	<	0.000760	M	Th	<	0.000760				
M	Cd	<	0.000760	M	Ir	<	0.000760	M	Pt	<	0.000760	O	Ti	<	0.001100				
M	Ce	<	0.000760	O	K		0.007078	M	Rb	<	0.000760	M	Tl	<	0.000760				
M	Co	<	0.000760	M	La	<	0.000760	M	Re	<	0.000760	M	Tm	<	0.000760				
O	Cr	<	0.001300	O	Li	<	0.000130	M	Rh	<	0.000760	M	U	<	0.000760				
M	Cs	<	0.000760	M	Lu	<	0.000760	M	Ru	<	0.000760	M	V	<	0.001600				
M	Cu	<	0.003800	O	Mg		0.000707	n	S	<		M	W	<	0.001600				
M	Dy	<	0.000760	O	Mn		0.000149	M	Sb	<	0.000760	M	Y	<	0.000760				
M	Er	<	0.000760	M	Mo	<	0.002300	M	Sc	<	0.000760	M	Yb	<	0.000760				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 114.82 +3 6 In(H2O)6+3

Chemical Compatibility -Soluble in HCl, HNO3, and H2SO4. Avoid neutral and basic media. Stable with most metals and inorganic anions. The oxalate, sulfide, carbonate, hydroxide and phosphate are insoluble in water.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

In Containing Samples (Preparation and Solution) -Metal (Best dissolved in HCl / HNO3); Oxide (Soluble in mineral acids); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 115 amu	1 ppt	n/a	115Sn, 99Ru16O
ICP-OES 158.583 nm	0.05 / 0.002 µg/mL	1	
ICP-OES 230.606 nm	0.1 / 0.03 µg/mL	1	Ni, Os
ICP-OES 325.609 nm	0.2 / 0.05 µg/mL	1	Mn, Mo, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 21, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 21, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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MS-997

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-MEB727800
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Arsenic, Lead, Selenium, Thallium, 500 µg/mL ea: Cadmium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	**1 000 ± 7 µg/mL**	**Cadmium, Cd**	**500.0 ± 2.2 µg/mL**
Lead, Pb	**1 000 ± 4 µg/mL**	**Selenium, Se**	**1 000 ± 6 µg/mL**
Thallium, Tl	**1 000 ± 7 µg/mL**		

Density: 1.042 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
As	Calculated		See Sec. 4.2
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i}^2) / (\Sigma(1/(u_{char\ i}^2))$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i}^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

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**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

December 21, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- December 21, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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1.0 ACCREDITATION / REGISTRATION

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ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	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™
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Certificate of Analysis

M6074
M6075
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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

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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

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u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

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- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 06, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- September 06, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Joseph Burns
Custom VS Manager

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

R->1/13/28

M6128

Part Number:	**58025**	**Solvent:**	**Lot #** 24002546	Nitric Acid
Lot Number:	**101124**			
Description:	**Manganese (Mn)**	2%	80.0 (mL)	Nitric Acid
Expiration Date:	101127			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Weight shown below was diluted to (mL):	4000.2	0.10	Flask Uncertainty	

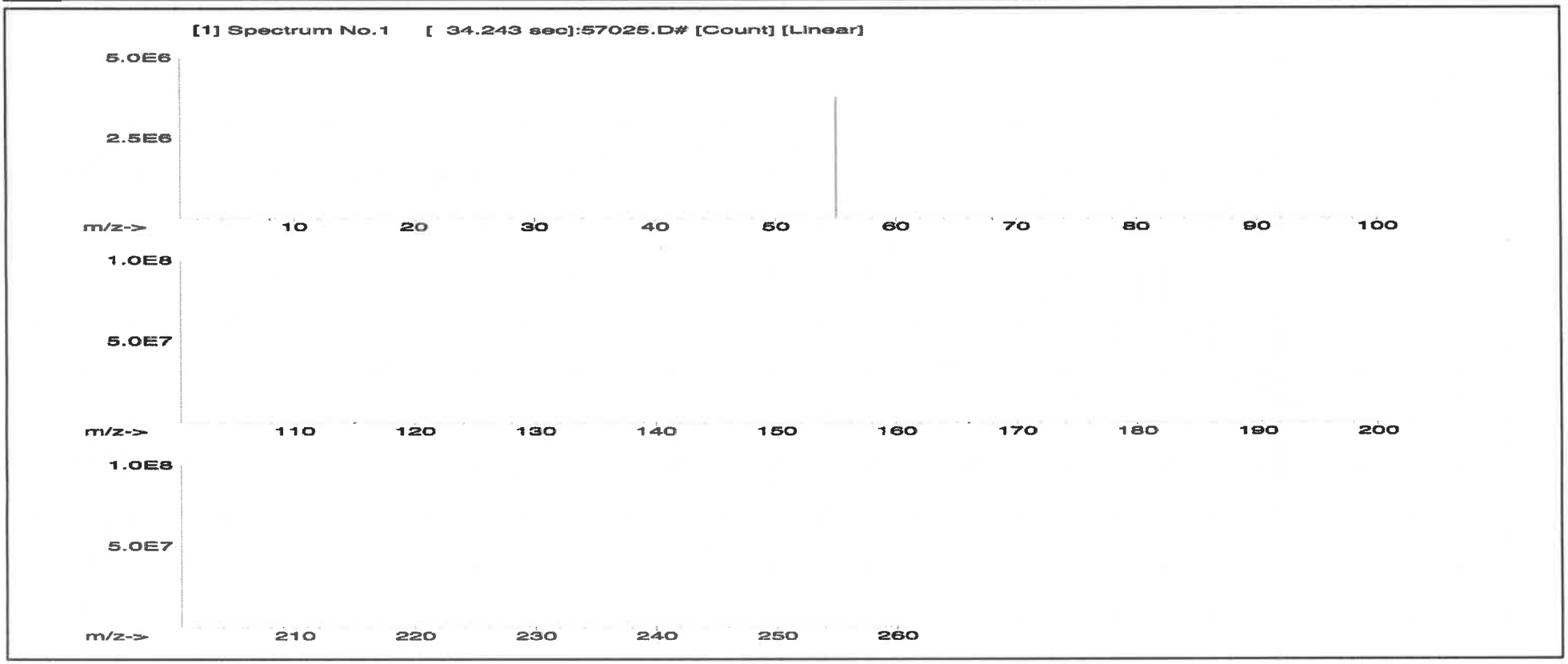
Giovanni Esposito

Formulated By:	Giovanni Esposito	101124

Pedro Rentas

Reviewed By:	Pedro L. Rentas	101124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	**SDS Information** (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Manganese(II) nitrate hydrate (Mn)	IN031	MNM092020A1	1000	99.999	0.10	20.8	19.2322	19.2344	**1000.1**	**2.0**	15710-66-4	5 mg/m3	orl-rat >300mg/kg	3132



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	T	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certificate of Analysis

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M6137 R→10/3/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGSI1
Lot Number:	V2-SI744713
Matrix:	tr. HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Silicon
Starting Material:	Silica
Starting Material Lot#:	1771
Starting Material Purity:	99.9981%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 6 µg/mL

Density: 1.003 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**999 ± 5 µg/mL** ICP Assay NIST SRM Traceable to 3150 Lot Number: S2-SI702546
Assay Method #2	**1000 ± 7 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

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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

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X_a = mean of Assay Method A with

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4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000310	M	Eu	<	0.000310	O	Na		0.001656	M	Se	<	0.022000	M	Zn	<	0.002500
M	Al		0.010787	M	Fe	<	0.027000	M	Nb	<	0.001300	s	Si	<		O	Zr	<	0.001900
M	As	<	0.001900	M	Ga	<	0.001300	M	Nd	<	0.000310	M	Sm	<	0.000310				
M	Au	<	0.000910	M	Gd	<	0.000310	M	Ni	<	0.005500	M	Sn		0.000096				
M	B		0.016180	M	Ge	<	0.001900	M	Os	<	0.000610	O	Sr		0.000092				
M	Ba		0.000096	M	Hf		0.000423	i	P	<		M	Ta		0.002542				
O	Be	<	0.000570	M	Hg	<	0.000610	M	Pb	<	0.000310	M	Tb	<	0.000310				
M	Bi	<	0.000310	M	Ho	<	0.000610	M	Pd	<	0.000610	M	Te	<	0.000910				
O	Ca		0.011557	M	In	<	0.000310	M	Pr	<	0.000310	M	Th	<	0.001900				
M	Cd	<	0.000310	M	Ir	<	0.000310	M	Pt	<	0.000310	M	Ti		0.001078				
M	Ce	<	0.000610	O	K		0.000577	M	Rb	<	0.009100	M	Tl	<	0.000310				
M	Co	<	0.001600	M	La	<	0.000310	M	Re	<	0.000310	M	Tm	<	0.000310				
M	Cr	<	0.010000	O	Li	<	0.000460	M	Rh	<	0.000310	M	U	<	0.000310				
M	Cs	<	0.000310	M	Lu	<	0.000310	M	Ru	<	0.000310	O	V	<	0.001300				
M	Cu	<	0.002500	O	Mg		0.001348	O	S	<	0.570000	M	W	<	0.001900				
M	Dy	<	0.000310	M	Mn	<	0.002500	M	Sb	<	0.000310	M	Y	<	0.000310				
M	Er	<	0.000310	M	Mo	<	0.000310	O	Sc	<	0.000590	M	Yb	<	0.000310				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 28.09 +4 6 Si(OH)x(F)y2-

Chemical Compatibility -Soluble in HCl, HF, H3PO4 H2SO4 and HNO3 as the Si(OH)x(F)y2-. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths, or high levels of transition elements unless they are fluorinated. Stable with most inorganic anions with a tendency to hydrolyze forming silicic acid (silicic acid is soluble up to ∼100 ppm in water) in all dilute acids except HF.

Stability - 2-100 ppb levels - stability unknown - (alone or mixed with all other metals) as the Si(OH)x(F)y2-. 1-10,000 ppm single element solutions as the Si(OH)x(F)y2- chemically stable for years in 2-5 % HNO3 / trace HF in a LDPE container.

Si Containing Samples (Preparation and Solution) -Metal (Soluble in 1:1:1 H2O / HF / HNO3); Oxide - SiO2, amorphic (dissolve by heating in 1:1:1 H2O / HF / HNO3); Oxide - quartz (fuse in Pt0 with Na2CO3); Geological Samples(fuse in Pt0with Na2CO3 followed by HCl solution of the fuseate); Organic Matrices containing silicates and non volatile silicon compounds (dry ash at 4500C in Pt0 and dissolve by gently warming with 1:1:1 H2O / HF / H2SO4 or fuse / ash with Na2CO3 and dissolve fuseate with HCl / H2O); Silicone Oils - dimethyl silicones depolymerize to form volatile monomer units when heated (Measure directly in alcoholic KOH / xylene mixture where sample is treated first with the KOH at 60-1000C to "unzip" the Si- O-Si polymeric structure or digest with conc. H2SO4 / H2O2 followed by cooling and dissolution of the dehydrated silica with HF.) Note that the direct analysis of silicone oils in an organic solvent will result in false high results due to high vapor pressure of volatile monomer units like hexamethylcyclotrisiloxane. The KOH forms the K2+Si(CH3)2O= salt which is not volatile at room temperature.

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 28 amu	4000 - 8000 ppt	N/A	N2, 12C16O
ICP-OES 212.412 nm	0.02/0.01 µg/mL	1	Hf, Os, Mo, Ta
ICP-OES 251.611 nm	0.012/0.003 µg/mL	1	Ta, U, Zn, Th
ICP-OES 288.158 nm	0.03/0.004 µg/mL	1	Ta, Ce, Cr, Cd, Th

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 10, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **July 10, 2029**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor

Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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800-368-1131
www.absolutestandards.com

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AR-1539 Certificate Number
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CERTIFIED WEIGHT REPORT:

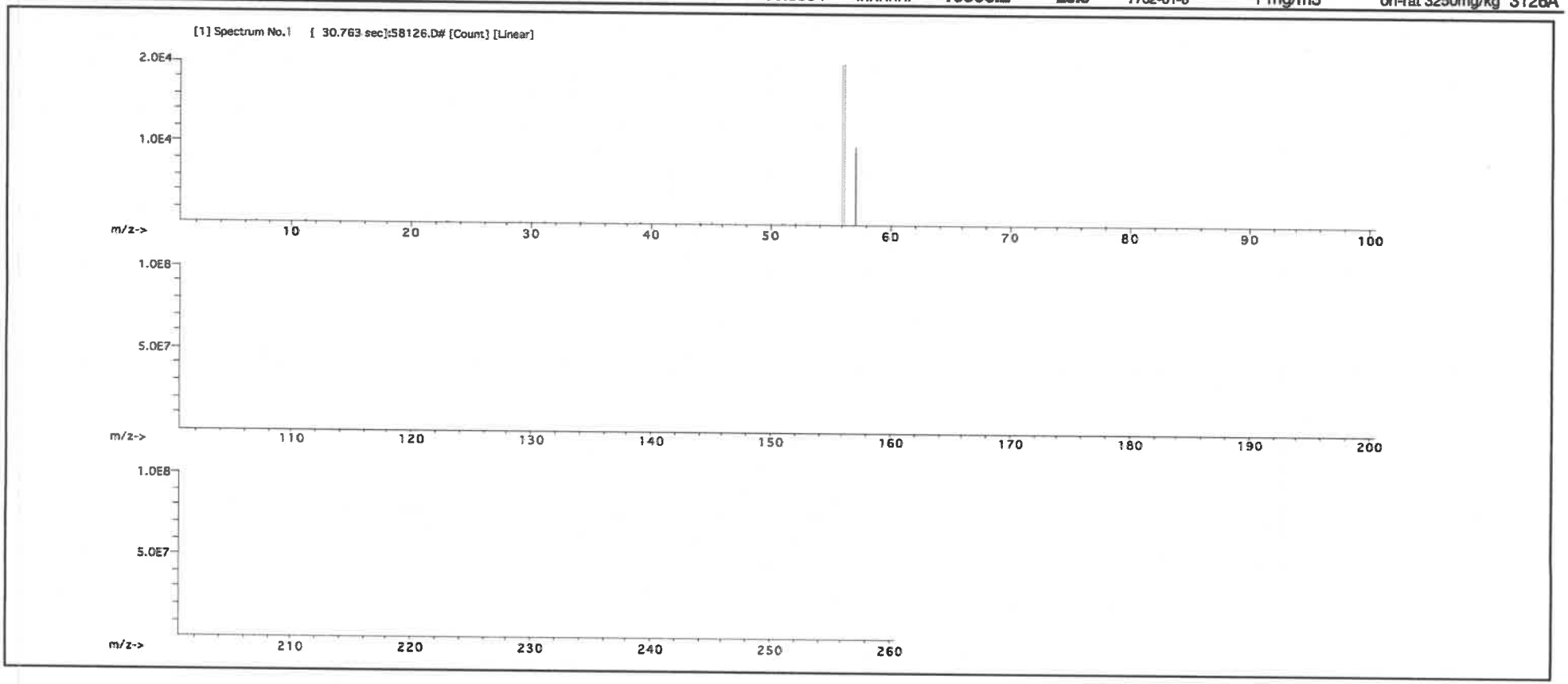
Part Number: 58126 R->1|B|2S
Lot Number: 011025
Description: Iron (Fe) M6140
Expiration Date: 011028
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.07 ± 0.100 Flask Uncertainty

		Lot #	
Solvent:	24012496	Nitric Acid	
	2%	40.0 (mL)	Nitric Acid

5E-05 Balance Uncertainty

Formulated By:	Benson Chan	011025
Reviewed By:	Pedro L. Rentas	011025

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Iron(III) nitrate nonahydrate (Fe)	IN028	FED082023A1	10000	99.999	0.10	13.0	153.8534	######	**10000.2**	**20.0**	7782-61-8	1 mg/m3	orl-rat 3250mg/kg	3126A



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	T	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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CERTIFIED WEIGHT REPORT:

R-> 1/13/25

Part Number: 57119
Lot Number: 103024
Description: Potassium (K)

M6141
M6142
M6143

Expiration Date: 103027
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

		Lot #	
Solvent:	24002546	Nitric Acid	
2%	80.0 (mL)	Nitric Acid	

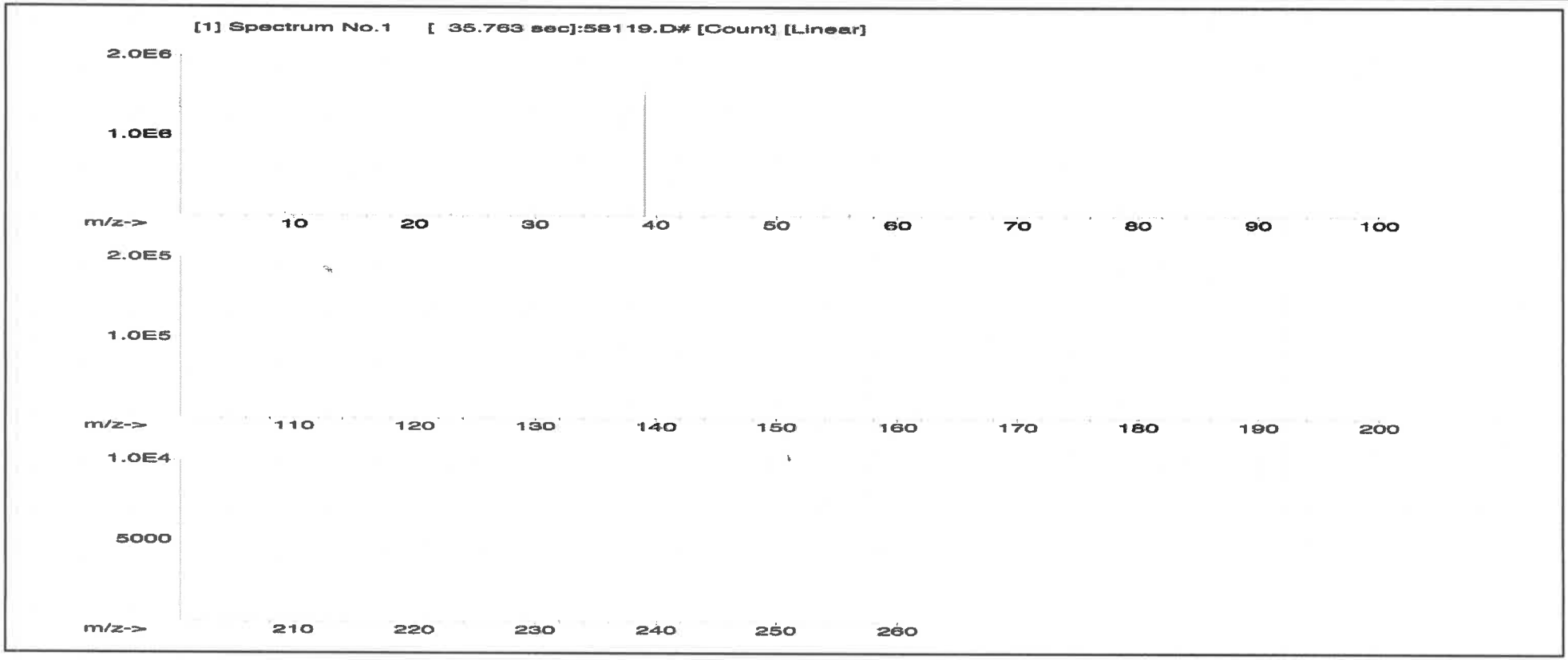
5E-05 Balance Uncertainty

Weight shown below was diluted to (mL): 4000.1 0.15 Flask Uncertainty

Giovanni Esposito

Formulated By:	Giovanni Esposito	103024
Reviewed By:	Pedro L. Rentas	103024

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD062022A1	10000	99.999	0.10	37.7	106.1040	######	**10001.1**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3750 mg/kg	3141a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	T	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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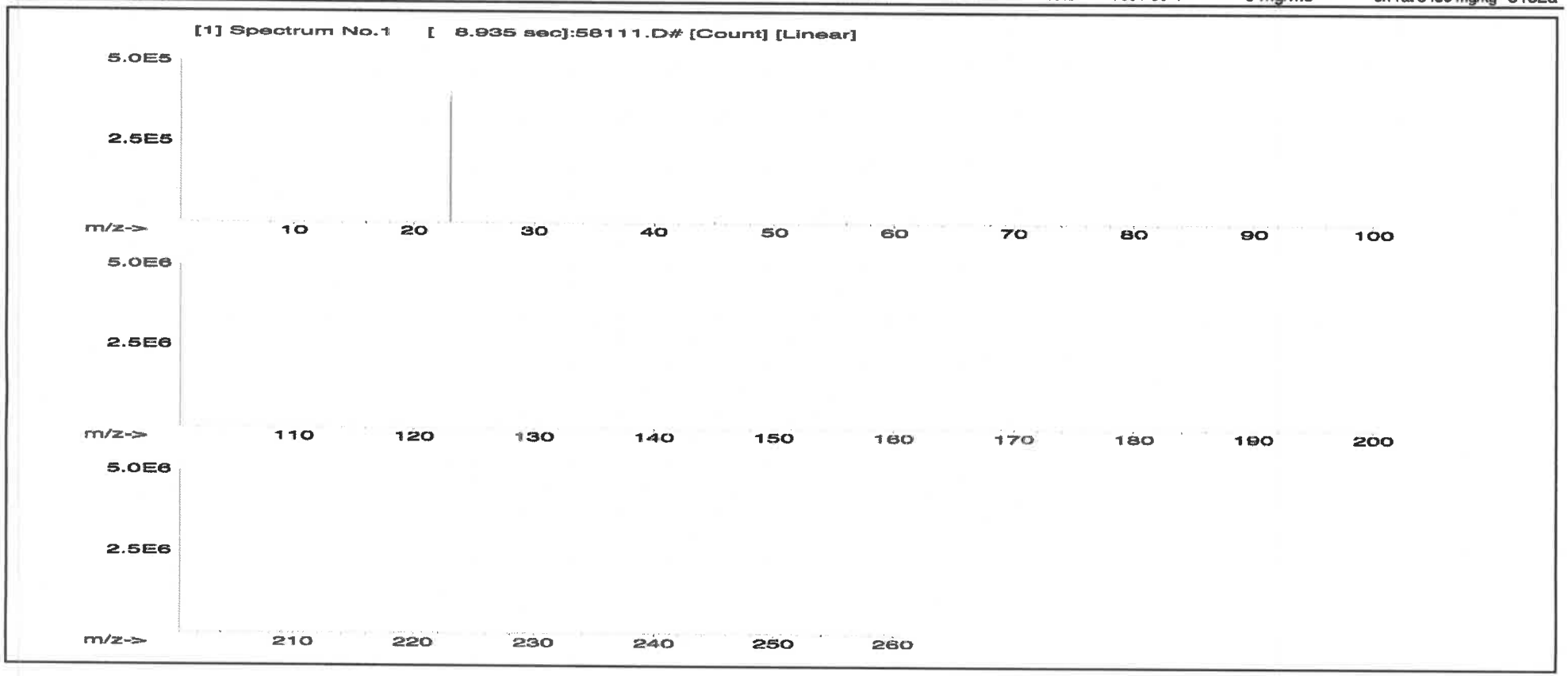
CERTIFIED WEIGHT REPORT:

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.
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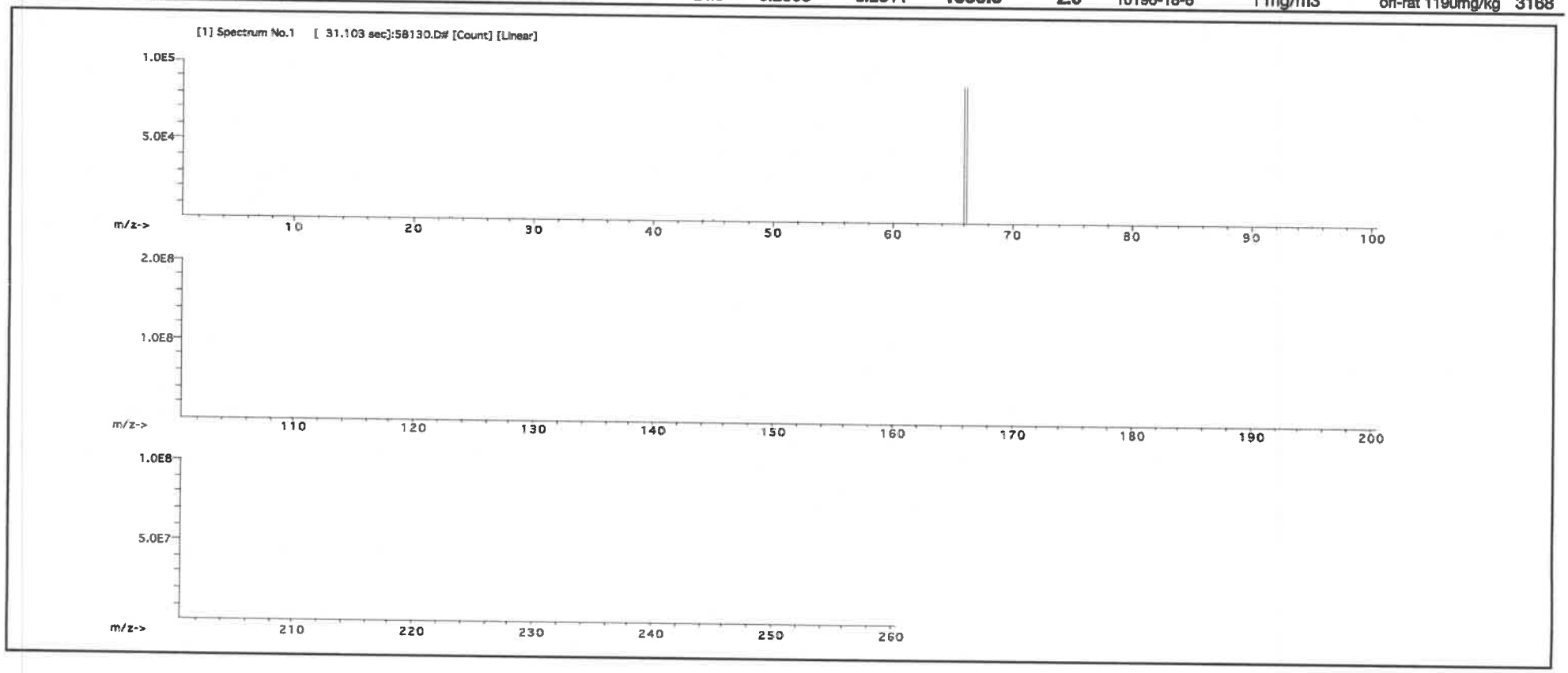
CERTIFIED WEIGHT REPORT:

Part Number:	**58030**	R → 1/13/25	**Solvent:**	**Lot #** 24012496	Nitric Acid
Lot Number:	**121724**				
Description:	**Zinc (Zn)**	M6145	2%	40.0 (mL)	Nitric Acid
Expiration Date:	121727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05 Balance Uncertainty			
Weight shown below was diluted to (mL):	2000.1	0.10 Flask Uncertainty			

Aleah O'Brady

Formulated By:	Aleah O'Brady	121724
Reviewed By:	Pedro L. Rentas	121724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Zinc nitrate hexahydrate (Zn)	IN016	ZNE032021A1	1000	99.999	0.10	24.3	8.2308	8.2311	**1000.0**	**2.0**	10196-18-6	1 mg/m3	orl-rat 1190mg/kg	3168



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.

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Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

M6151

R-> 1/15/25

Material No.: 9530-33
Batch No.: 22G2862015
Manufactured Date: 2022-06-15
Retest Date: 2027-06-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.9 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.191
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl_2)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO_4)	≤ 0.05 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO_3)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH_4)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	1.3 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	163.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.7 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	0.6 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	6 ppb

>>> Continued on page 2 >>>

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result
Trace Impurities - Lead (Pb)	≤ 1.0 ppb	< 0.5 ppb
Trace Impurities - Lithium (Li)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Magnesium (Mg)	≤ 10.0 ppb	2.9 ppb
Trace Impurities - Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities - Mercury (Hg)	≤ 0.5 ppb	0.1 ppb
Trace Impurities - Molybdenum (Mo)	≤ 10.0 ppb	< 3.0 ppb
Trace Impurities - Nickel (Ni)	≤ 4.0 ppb	< 0.3 ppb
Trace Impurities - Niobium (Nb)	≤ 1.0 ppb	0.8 ppb
Trace Impurities - Potassium (K)	≤ 9.0 ppb	< 2.0 ppb
Trace Impurities - Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities - Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities - Silver (Ag)	≤ 1.0 ppb	0.5 ppb
Trace Impurities - Sodium (Na)	≤ 100.0 ppb	2.3 ppb
Trace Impurities - Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Tantalum (Ta)	≤ 1.0 ppb	1.6 ppb
Trace Impurities - Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Tin (Sn)	≤ 5.0 ppb	4.0 ppb
Trace Impurities - Titanium (Ti)	≤ 1.0 ppb	1.5 ppb
Trace Impurities - Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Zinc (Zn)	≤ 5.0 ppb	0.8 ppb
Trace Impurities - Zirconium (Zr)	≤ 1.0 ppb	0.3 ppb

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result

For Laboratory,Research,or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

avantor | J.T.Baker

M615 MB

Material No.: 9673-33
Batch No.: 24I1262013
Manufactured Date: 2024-08-07
Retest Date:2029-08-06
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS - Assay (H_2SO_4)	95.0 - 98.0 %	96.2 %
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 & Antimony (as As)	<= 4.0 ppb	<2.0 ppb
Trace Impurities - Boron (B)	<= 10.0 ppb	<5.0 ppb
Trace Impurities - Cadmium (Cd)	<= 2.0 ppb	<1.0 ppb
Trace Impurities - Chromium (Cr)	<= 6.0 ppb	<1.0 ppb
Trace Impurities - Cobalt (Co)	<= 0.5 ppb	<0.3 ppb
Trace Impurities - Copper (Cu)	<= 1.0 ppb	<1.0 ppb
Trace Impurities - Gold (Au)	<= 10.0 ppb	<5.0 ppb
Heavy Metals (as Pb)	<= 500.0 ppb	<100.0 ppb
Trace Impurities - Iron (Fe)	<= 50.0 ppb	<1.0 ppb
Trace Impurities - Lead (Pb)	<= 0.5 ppb	<0.5 ppb
Trace Impurities - Magnesium (Mg)	<= 7.0 ppb	<1.0 ppb
Trace Impurities - Manganese (Mn)	<= 1.0 ppb	<1.0 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	<10.0 ppb
Trace Impurities - Selenium (Se)	<= 50.0 ppb	7.2 ppb
Trace Impurities - Silicon (Si)	<= 100.0 ppb	12.8 ppb
Trace Impurities - Silver (Ag)	<= 1.0 ppb	<1.0 ppb

Sulfuric Acid
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis
Low Selenium

avantor™ | J.T.Baker

Material No.: 9673-33
Batch No.: 24I1262013

Test	Specification	Result
Trace Impurities - Sodium (Na)	<= 500.0 ppb	<5.0 ppb
Trace Impurities - Strontium (Sr)	<= 5.0 ppb	<1.0 ppb
Trace Impurities - Tin (Sn)	<= 5.0 ppb	1.1 ppb
Trace Impurities - Zinc (Zn)	<= 5.0 ppb	<1.0 ppb

For Laboratory,Research,or Manufacturing Use

Country of Origin: United States
Packaging Site: Phillipsburg Mfg Ctr & DC

J Croak

Jamie Croak
Director Quality Operations, Bioscience Production

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R-02102/2025

M-6158

Material No.: 9606-03
Batch No.: 24D1062002
Manufactured Date: 2024-03-26
Retest Date: 2029-03-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	2.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	100 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result
Trace Impurities - Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities - Potassium (K)	≤ 50 ppb	16 ppb
Trace Impurities - Silicon (Si)	≤ 50 ppb	< 10 ppb
Trace Impurities - Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Sodium (Na)	≤ 150.0 ppb	< 5.0 ppb
Trace Impurities - Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Tantalum (Ta)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Thallium (Tl)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Tin (Sn)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count - 0.5 µm and greater	≤ 60 par/ml	10 par/ml
Particle Count - 1.0 µm and greater	≤ 10 par/ml	3 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

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F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED
Testing Laboratory
Certificate 883.01

ACCREDITED
Reference Material Producer
Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	QCP-CICV-1
Lot Number:	V2-MEB744107
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	2 500 µg/mL ea: Calcium, Potassium, Magnesium, Sodium, 1 000 µg/mL ea: Aluminum, Barium, 500 µg/mL ea: Iron, 250 µg/mL ea: Nickel, Vanadium, Zinc, Cobalt, Manganese, 125 µg/mL ea: Silver, Copper, 100 µg/mL ea: Chromium, 25 µg/mL ea: Beryllium

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	**1 000 ± 4 µg/mL**	**Barium, Ba**	**1 000 ± 6 µg/mL**
Beryllium, Be	**24.98 ± 0.12 µg/mL**	**Calcium, Ca**	**2 500 ± 8 µg/mL**
Chromium, Cr	**99.9 ± 0.6 µg/mL**	**Cobalt, Co**	**250.2 ± 1.2 µg/mL**
Copper, Cu	**125.0 ± 0.5 µg/mL**	**Iron, Fe**	**500.0 ± 2.2 µg/mL**
Magnesium, Mg	**2 500 ± 11 µg/mL**	**Manganese, Mn**	**249.9 ± 1.1 µg/mL**
Nickel, Ni	**250.0 ± 1.2 µg/mL**	**Potassium, K**	**2 500 ± 11 µg/mL**
Silver, Ag	**125.0 ± 0.6 µg/mL**	**Sodium, Na**	**2 500 ± 11 µg/mL**
Vanadium, V	**250.0 ± 1.1 µg/mL**	**Zinc, Zn**	**249.9 ± 1.1 µg/mL**

Density: 1.081 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	120618
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	200413
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information (https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver)

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 22, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **May 22, 2029**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

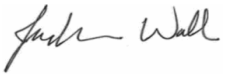
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Justin Dirico
Stock Processing Supervisor

Certificate Approved By:

Jodie Wall
Stock VSM Coordinator



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Certificate of Analysis

300 Technology Drive
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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	QCP-CICV-2
Lot Number:	U2-MEB733713
Matrix:	3% (w/v) Tartaric acid 1% (v/v) HNO3
Value / Analyte(s):	500 µg/mL ea: Antimony

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	**500.0 ± 2.8 µg/mL**		

Density: 1.017 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Sb	ICP Assay	3102a	140911

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$
w_i = the weighting factors for each method calculated using the inverse square of the variance:
$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2
$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method
u_{bb} = bottle to bottle homogeneity standard uncertainty
u_{lts} = long term stability standard uncertainty (storage)
u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)(u_{char\ a})$

X_a = mean of Assay Method A with
$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2
$u_{char\ a}$ = the errors from characterization
u_{bb} = bottle to bottle homogeneity standard uncertainty
u_{lts} = long term stability standard uncertainty (storage)
u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 01, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **June 01, 2028**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

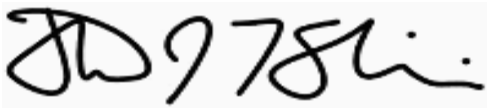
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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:	QCP-CICV-3
Lot Number:	V2-MEB749572
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	500 µg/mL ea: Arsenic, Lead, Selenium, Thallium, 250 µg/mL ea: Cadmium

Second Source: Whenever possible, this solution was manufactured from a second set of concentrates in our manufacturing facility.

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	**500.0 ± 3.1 µg/mL**	**Cadmium, Cd**	**250.1 ± 1.1 µg/mL**
Lead, Pb	**500.0 ± 2.3 µg/mL**	**Selenium, Se**	**500.0 ± 3.2 µg/mL**
Thallium, Tl	**500.0 ± 3.0 µg/mL**		

Density: 1.040 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 02, 2025

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 02, 2030**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

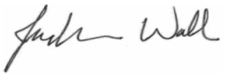
12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Justin Dirico
Stock Processing Supervisor

Certificate Approved By:

Jodie Wall
Stock VSM Coordinator



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 58112
Lot Number: 011525
Description: Magnesium (Mg)

M 6171

	Lot #	
Solvent:	24012496	Nitric Acid
2%	40.0 (mL)	Nitric Acid

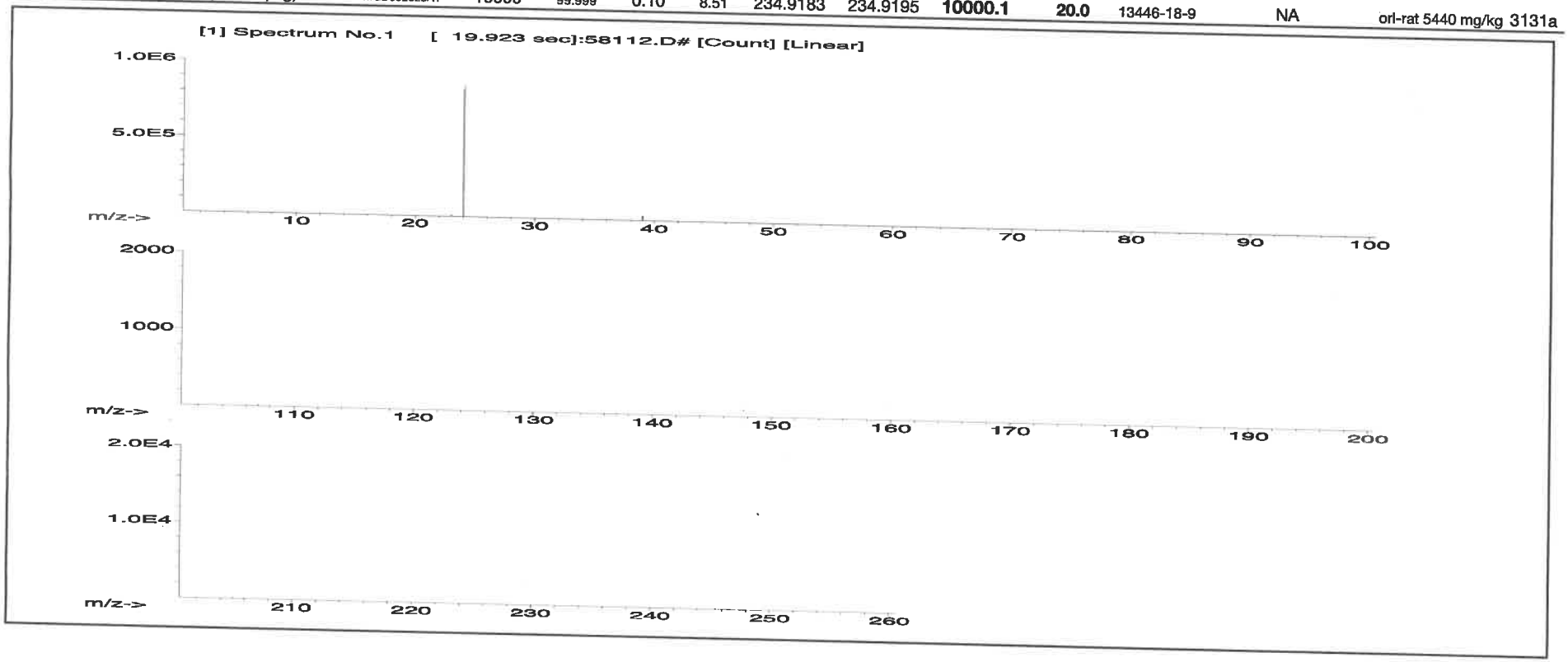
Expiration Date: 011528
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

5E-05	Balance Uncertainty	
0.100	Flask Uncertainty	

Weight shown below was diluted to (mL): 2000.07

Formulated By:	Benson Chan	011525
Reviewed By:	Pedro L. Rentas	011525

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9183	234.9195	**10000.1**	**20.0**	13446-18-9	NA	orl-rat 5440 mg/kg	3131a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	T	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES
Refine your results. Redefine your industry.

Certificate of Analysis

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info@inorganicventures.com

M6174
R-> 5/5/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CLPP-CAL-1
Lot Number:	V2-MEB742428
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea:
	Calcium, Potassium,
	Magnesium, Sodium,
	2 000 µg/mL ea:
	Aluminum, Barium,
	1 000 µg/mL ea:
	Iron,
	500 µg/mL ea:
	Nickel, Vanadium,
	Zinc, Cobalt,
	Manganese,
	250 µg/mL ea:
	Silver, Copper,
	200 µg/mL ea:
	Chromium,
	50 µg/mL ea:
	Beryllium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	2 000 ± 7 µg/mL	Barium, Ba	2 000 ± 9 µg/mL
Beryllium, Be	50.03 ± 0.30 µg/mL	Calcium, Ca	5 000 ± 16 µg/mL
Chromium, Cr	200.0 ± 1.1 µg/mL	Cobalt, Co	500.0 ± 2.3 µg/mL
Copper, Cu	250.0 ± 1.1 µg/mL	Iron, Fe	1 000 ± 4 µg/mL
Magnesium, Mg	5 000 ± 22 µg/mL	Manganese, Mn	499.9 ± 2.2 µg/mL
Nickel, Ni	500.1 ± 2.3 µg/mL	Potassium, K	5 000 ± 22 µg/mL
Silver, Ag	250.0 ± 1.1 µg/mL	Sodium, Na	5 000 ± 22 µg/mL
Vanadium, V	500.0 ± 2.2 µg/mL	Zinc, Zn	500.0 ± 2.2 µg/mL

Density: 1.117 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	120618
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	200413
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information (https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver)

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 22, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- March 22, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor

Certificate Approved By:

Jodie Wall
Stock VSM Coordinator

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

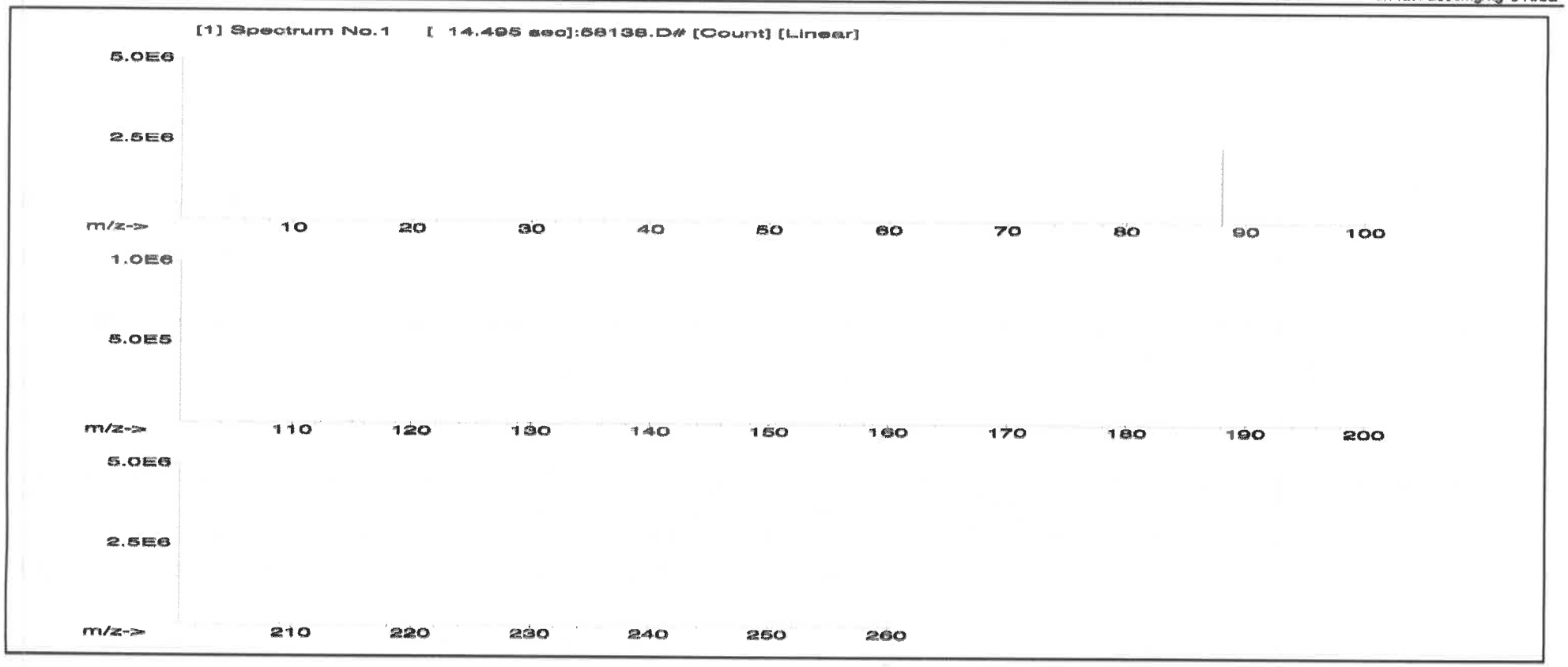
CERTIFIED WEIGHT REPORT:

R->8/6/29

Part Number:	57038		**Lot #**		
Lot Number:	092724	**Solvent:**	24002546	Nitric Acid	
Description:	Strontium (Sr)				
		M6176 2%	40.0 (mL)	Nitric Acid	
Expiration Date:	092727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	1000				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

Formulated By:	Benson Chan	092724
Reviewed By:	Pedro L. Rentas	092724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Strontium nitrate (Sr)	IN017	SRZ022018A1	1000	99.997	0.10	41.2	4.85470	4.85481	**1000.0**	**2.0**	10042-76-9	NA	orl-rat >2000mg/kg	3153a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	T	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

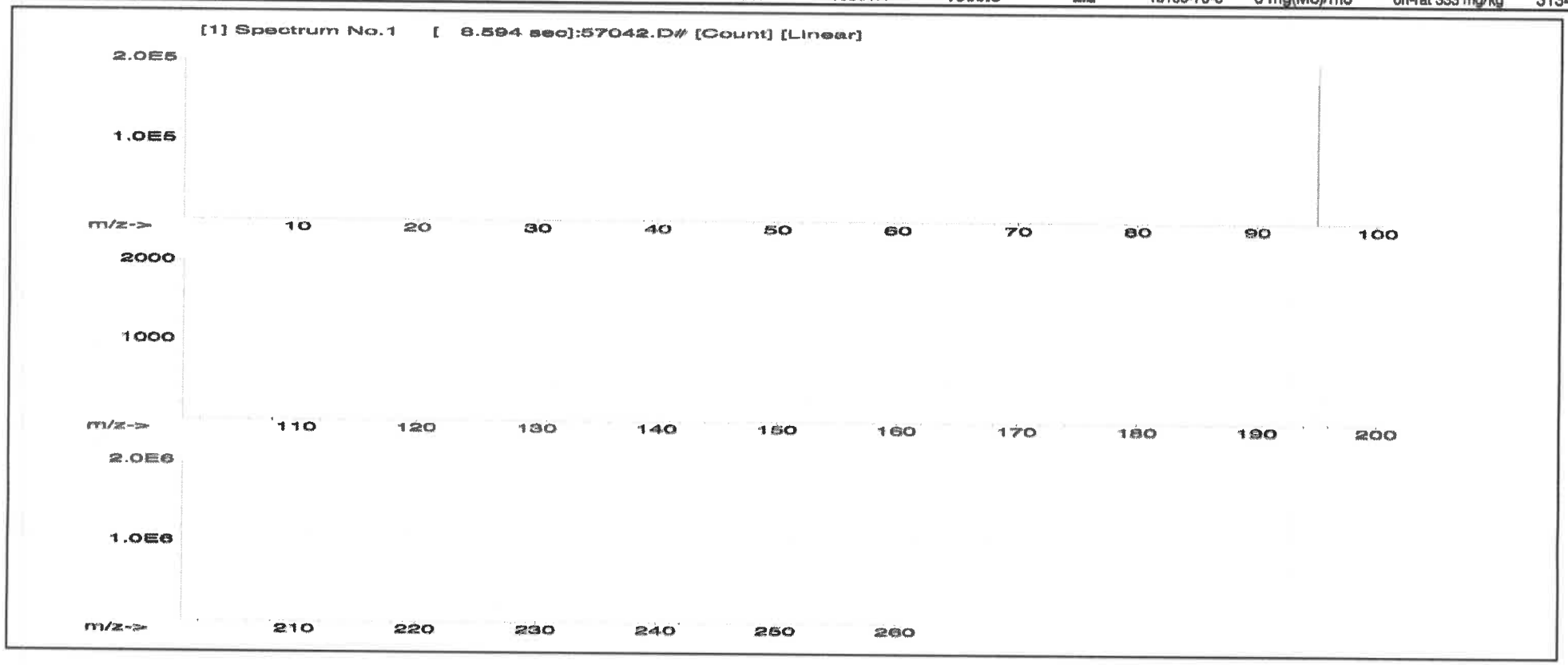
CERTIFIED WEIGHT REPORT:

R→ 8/6/25
M6177

		Lot #	Solvent:		
Part Number:	57042	MKBQ8597V	Ammonium hydroxide		
Lot Number:	080525	080525	ASTM Type 1 Water		
Description:	Molybdenum (Mo)	0.5%	10.0 (mL)	Ammonium hydroxide	
Expiration Date:	080528				
Recommended Storage:	Ambient (15 - 30 °C)				
Nominal Concentration (µg/mL):	1000				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Volume shown below was diluted to (mL):	1999.41	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	080525
Reviewed By:	Pedro L. Rentas	080525

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium molybdate (Mo)	58142	112322	0.1000	200.0	0.084	1000	10001.4	**1000.5**	**2.2**	13106-76-8	5 mg(Mo)/m3	orl-rat 333 mg/kg	3134



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	T	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* 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 by an ISO17025 certified organization with weights traceable through NIST to the SI kilogram (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).
Rev 1.0, 2/25/2025

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

R>8/6/28
M6178

Part Number:	**57082**		**Lot #**		
Lot Number:	**031525**	**Solvent:**	24014457	Nitric Acid	
Description:	**Lead (Pb)**		2%	40.0 (mL)	Nitric Acid
Expiration Date:	031528				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.10	Flask Uncertainty		

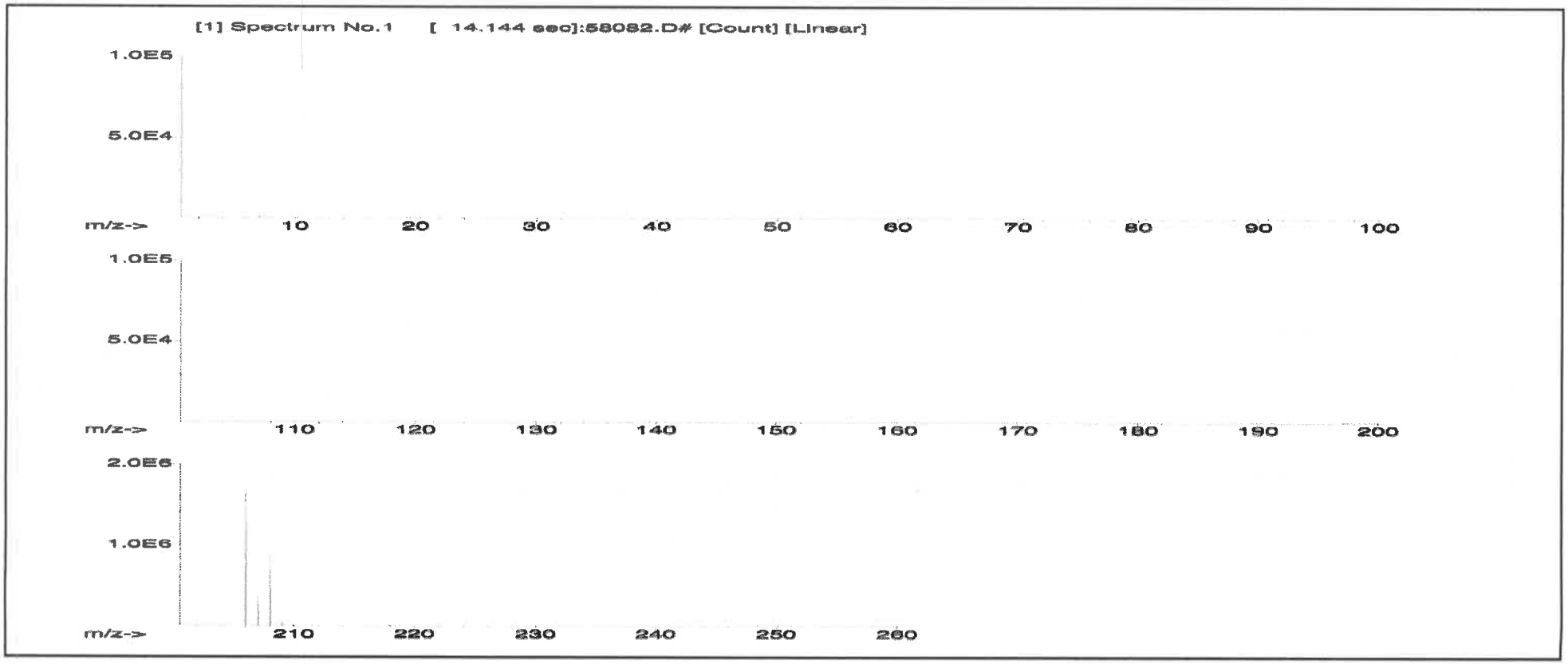
Giovanni Esposito

Formulated By:	Giovanni Esposito	031525

Pedro Rentas

Reviewed By:	Pedro L. Rentas	031525

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	1000	99.999	0.10	62.5	3.20015	3.20067	**1000.2**	**2.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	T	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
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Certificate of Analysis

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Christiansburg, VA 24073 USA
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F: 540-585-3012
info@inorganicventures.com

M6179
R -> 6/2/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGY10
Lot Number:	V2-Y740548
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Yttrium
Starting Material:	Yttrium Oxide
Starting Material Lot#:	2661 and 06230520YL
Starting Material Purity:	99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10000 ± 30 µg/mL

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10011 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #2	**9997 ± 50 µg/mL** ICP Assay NIST SRM 3167a Lot Number: 190730
Assay Method #3	**9984 ± 31 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.004600	M	Eu		0.009037	M	Na		0.086360	M	Se	<	0.005200	M	Zn		0.030125
M	Al		0.014862	O	Fe		0.002410	M	Nb	<	0.000570	O	Si		0.024100	O	Zr	<	0.002600
M	As	<	0.003500	M	Ga	<	0.000570	M	Nd		0.000923	M	Sm		0.000461				
M	Au	<	0.001700	M	Gd	<	0.003500	M	Ni	<	0.005700	M	Sn	<	0.002300				
O	B		0.002209	M	Ge	<	0.005200	M	Os	<	0.001200	M	Sr	<	0.004600				
O	Ba	<	0.002500	M	Hf	<	0.000570	n	P	<		M	Ta	<	0.000570				
O	Be	<	0.001400	M	Hg	<	0.000570	M	Pb		0.005020	M	Tb		0.001044				
M	Bi	<	0.003500	M	Ho		0.009037	M	Pd	<	0.005100	M	Te	<	0.002300				
O	Ca		0.009841	M	In	<	0.002300	M	Pr	<	0.002300	M	Th	<	0.000570				
M	Cd	<	0.000570	M	Ir	<	0.000570	M	Pt	<	0.000570	M	Ti	<	0.003500				
M	Ce	<	0.002300	O	K		0.018677	M	Rb	<	0.000570	M	Tl	<	0.000570				
M	Co	<	0.000570	M	La		0.000461	M	Re	<	0.000570	M	Tm	<	0.003500				
M	Cr	<	0.004000	O	Li	<	0.009300	M	Rh	<	0.008000	M	U	<	0.000570				
M	Cs	<	0.000570	M	Lu		0.000582	M	Ru	<	0.000570	M	V		0.001265				
M	Cu		0.002610	O	Mg		0.001486	n	S	<		M	W	<	0.002300				
M	Dy		0.003815	M	Mn		0.000582	M	Sb		0.005422	s	Y	<					
M	Er		0.003615	M	Mo	<	0.005700	M	Sc	<	0.001200	M	Yb		0.001827				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 88.91 +3 6 Y(OH)(H2O)x+2

Chemical Compatibility -Soluble in HCl, H2SO4 and HNO3. Avoid HF, H3PO4 and neutral to basic media. Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride. Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

Y Containing Samples (Preparation and Solution) - Metal (Soluble in acids); Oxide (Dissolve by heating in H2O/ HNO3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolve in 1:1 H2O / HCl or HNO3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 89 amu	0.8 ppt	N/A	73Ge16O, 178Hf+2
ICP-OES 360.073 nm	0.005 / 0.000036 µg/mL	1	Ce, Th
ICP-OES 371.030 nm	0.004 / 0.00007 µg/mL	1	Ce
ICP-OES 377.433 nm	0.005 / 0.0009 µg/mL	1	Ta, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 20, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 20, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor

Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

R→03/06/24

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

M6182

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

R→03/06/24

QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-AES (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

M6184

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more bottles of Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-1211" and for the ICSAB mixture use "ICSA-1211+ICSB-0710".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The interference check sample set is to be used to verify inter-element and background correction factors of inductively-coupled plasma (ICP) spectrometers. This reference material set consists of two (2) concentrated solutions. The ICSA solution contains the four (4) interferent elements: Al, Ca, Fe, and Mg. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be,

The Quality Assurance Technical Support (QATS) contract is operated by APTIM Federal Services, LLC.

Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for ICP-AES Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSA solution by ICP-AES.

ICSB-0710, Analytes, mixed with ICSA-1211, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 2% v/v HNO_3. Analyze this ICSAB solution by ICP-AES.

(D) *"CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-AES ICS SOLUTION(S)*

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-AES ICSA-1211, AND ICSA-1211 MIXED WITH ICSB-0710

Element	CRQL	Part A (µg/L)	Low Limit (µg/L)	High Limit (µg/L)	Part A +Part B (µg/L)	Low Limit (µg/L)	High Limit (µg/L)
Al	200	255000	216000	294000	247000	209000	285000
Sb	60	(0.0)	-60.0	60.0	618	525	711
As	10	(0.0)	-10.0	10.0	104	88.4	120
Ba	200	(6.0)	-194	206	(537)	337	737
Be	5.0	(0.0)	-5.0	5.0	495	420	570
Cd	5.0	(1.0)	-4.0	6.0	972	826	1120
Ca	5000	245000	208000	282000	235000	199000	271000
Cr	10	(52.0)	42.0	62.0	542	460	624
Co	50	(0.0)	-50.0	50.0	476	404	548
Cu	25	(2.0)	-23.0	27.0	511	434	588
Fe	100	101000	85600	116500	99300	84400	114500
Pb	10	(0.0)	-10.0	10.0	(49.0)	39.0	59.0
Mg	5000	255000	216000	294000	248000	210000	286000
Mn	15	(7.0)	-8.0	22.0	507	430	584
Ni	40	(2.0)	-38.0	42.0	954	810	1100
Se	35	(0.0)	-35.0	35.0	(46.0)	11.0	81.0
Ag	10	(0.0)	-10.0	10.0	201	170	232
Tl	25	(0.0)	-25.0	25.0	(108)	83.0	133
V	50	(0.0)	-50.0	50.0	491	417	565
Zn	60	(0.0)	-60.0	60.0	952	809	1095

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value ± 1 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value ± 15 percent of the listed certified value.

Nitric Acid 69%
CMOS

M6187
R.D :- 08/08/25

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24H0162012
Manufactured Date: 2024-06-28
Retest Date: 2029-06-27
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	< 1 ppm
Chloride (Cl)	≤ 0.08 ppm	0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	0.1 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	0.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	0.1 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 1 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 1 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 1.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	< 1 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	1 ppb
Trace Impurities – Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 150.0 ppb	< 1.0 ppb
Trace Impurities – Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count – 0.5 µm and greater	≤ 60 par/ml	13 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	5 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24H0162012

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

M6200
R.0 → 08/25/25

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 24D1562005
Manufactured Date: 2024-03-18
Retest Date: 2029-03-17
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid-base titrn)	36.5 – 38.0 %	37.6 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.192
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl_2)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO_4)	≤ 0.05 ppm	0.03 ppm
Sulfate (SO_4)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO_3)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH_4)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	< 5.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 10.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	2.2 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 1.0 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	31.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.5 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	< 0.2 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	3 ppb

>>> Continued on page 2 >>>

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 24D1562005

Test	Specification	Result
Trace Impurities - Lead (Pb)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Lithium (Li)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities - Magnesium (Mg)	≤ 10.0 ppb	2.2 ppb
Trace Impurities - Manganese (Mn)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Mercury (Hg)	≤ 0.5 ppb	< 0.1 ppb
Trace Impurities - Molybdenum (Mo)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Nickel (Ni)	≤ 4.0 ppb	0.2 ppb
Trace Impurities - Niobium (Nb)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Potassium (K)	≤ 9.0 ppb	< 1.0 ppb
Trace Impurities - Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities - Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities - Silver (Ag)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities - Sodium (Na)	≤ 100.0 ppb	2.0 ppb
Trace Impurities - Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Tantalum (Ta)	≤ 1.0 ppb	< 0.9 ppb
Trace Impurities - Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Tin (Sn)	≤ 5.0 ppb	< 0.4 ppb
Trace Impurities - Titanium (Ti)	≤ 1.0 ppb	0.2 ppb
Trace Impurities - Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities - Zinc (Zn)	≤ 5.0 ppb	< 0.2 ppb
Trace Impurities - Zirconium (Zr)	≤ 1.0 ppb	< 0.1 ppb

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5-38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

Material No.: 9530-33
Batch No.: 24D1562005

Test	Specification	Result

For Laboratory,Research,or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

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:	WW-LFS-2
Lot Number:	V2-MEB743480
Matrix:	5% (v/v) HNO3 tr. HF
Value / Analyte(s):	200 µg/mL ea: Silica,
	80 µg/mL ea: Antimony,
	70 µg/mL ea: Tin,
	40 µg/mL ea: Molybdenum,
	20 µg/mL ea: Titanium

R - 7/20/23
M6201
M6202
M6203
M6204

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	80.1 ± 0.5 µg/mL	Molybdenum, Mo	40.05 ± 0.22 µg/mL
Silica, SiO2	200.3 ± 1.4 µg/mL	Tin, Sn	70.1 ± 0.4 µg/mL
Titanium, Ti	20.03 ± 0.12 µg/mL		

Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Sb	ICP Assay	3102a	140911
SiO2	Calculated		See Sec. 4.2
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	traceable to 3162a	T2-TI725816

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

May 07, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- May 07, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Justin Dirico
Stock Processing Supervisor

Certificate Approved By:

Thomas Kozikowski
Stock VS Manager

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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

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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-1
Lot Number:	W2-MEB752149
Matrix:	5% (v/v) HNO3

R -> 7/20/23

M6209
M6210
M6211
M6212

Value / Analyte(s):		
	1 000 µg/mL ea:	
	Potassium,	
	600 µg/mL ea:	
	Phosphorus,	
	300 µg/mL ea:	
	Sodium,	Iron,
	200 µg/mL ea:	
	Magnesium,	Aluminum,
	Cerium,	Selenium,
	Thallium,	
	100 µg/mL ea:	
	Lead,	Calcium,
	80 µg/mL ea:	
	Arsenic,	
	70 µg/mL ea:	
	Mercury,	
	50 µg/mL ea:	
	Nickel,	
	40 µg/mL ea:	
	Chromium,	
	30 µg/mL ea:	
	Copper,	Boron,
	Vanadium,	
	20 µg/mL ea:	
	Zinc,	Strontium,
	Barium,	Beryllium,
	Cadmium,	Cobalt,
	Manganese,	Lithium,
	7.5 µg/mL ea:	
	Silver	

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	200.2 ± 0.7 µg/mL	Arsenic, As	80.1 ± 0.5 µg/mL
Barium, Ba	20.02 ± 0.12 µg/mL	Beryllium, Be	20.02 ± 0.11 µg/mL
Boron, B	30.02 ± 0.15 µg/mL	Cadmium, Cd	20.04 ± 0.09 µg/mL
Calcium, Ca	100.1 ± 0.3 µg/mL	Cerium, Ce	200.2 ± 1.0 µg/mL
Chromium, Cr	40.02 ± 0.26 µg/mL	Cobalt, Co	20.03 ± 0.09 µg/mL
Copper, Cu	30.03 ± 0.13 µg/mL	Iron, Fe	300.3 ± 1.3 µg/mL
Lead, Pb	100.1 ± 0.5 µg/mL	Lithium, Li	20.03 ± 0.09 µg/mL
Magnesium, Mg	200.2 ± 0.9 µg/mL	Manganese, Mn	19.99 ± 0.09 µg/mL
Mercury, Hg	70.0 ± 0.3 µg/mL	Nickel, Ni	50.05 ± 0.22 µg/mL
Phosphorus, P	600.5 ± 2.9 µg/mL	Potassium, K	1 001 ± 4 µg/mL
Selenium, Se	200.2 ± 1.1 µg/mL	Silver, Ag	7.52 ± 0.03 µg/mL
Sodium, Na	300.3 ± 1.3 µg/mL	Strontium, Sr	20.02 ± 0.10 µg/mL
Thallium, Tl	200.2 ± 1.0 µg/mL	Vanadium, V	30.02 ± 0.13 µg/mL
Zinc, Zn	20.05 ± 0.09 µg/mL		

Density: 1.037 g/mL (measured at 20 ± 5 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Ce	ICP Assay	3110	160830
Ce	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	120618
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	200413
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Tl	ICP Assay	3158	151215
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 25° C to minimize the effects of transpiration. Use at 20° ± 5° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information (https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver)

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

April 08, 2025

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- April 08, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Justin Dirico
Stock Processing Supervisor

Certificate Approved By:

Jodie Wall
Stock VSM Coordinator

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

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R 8/05/24

M6027

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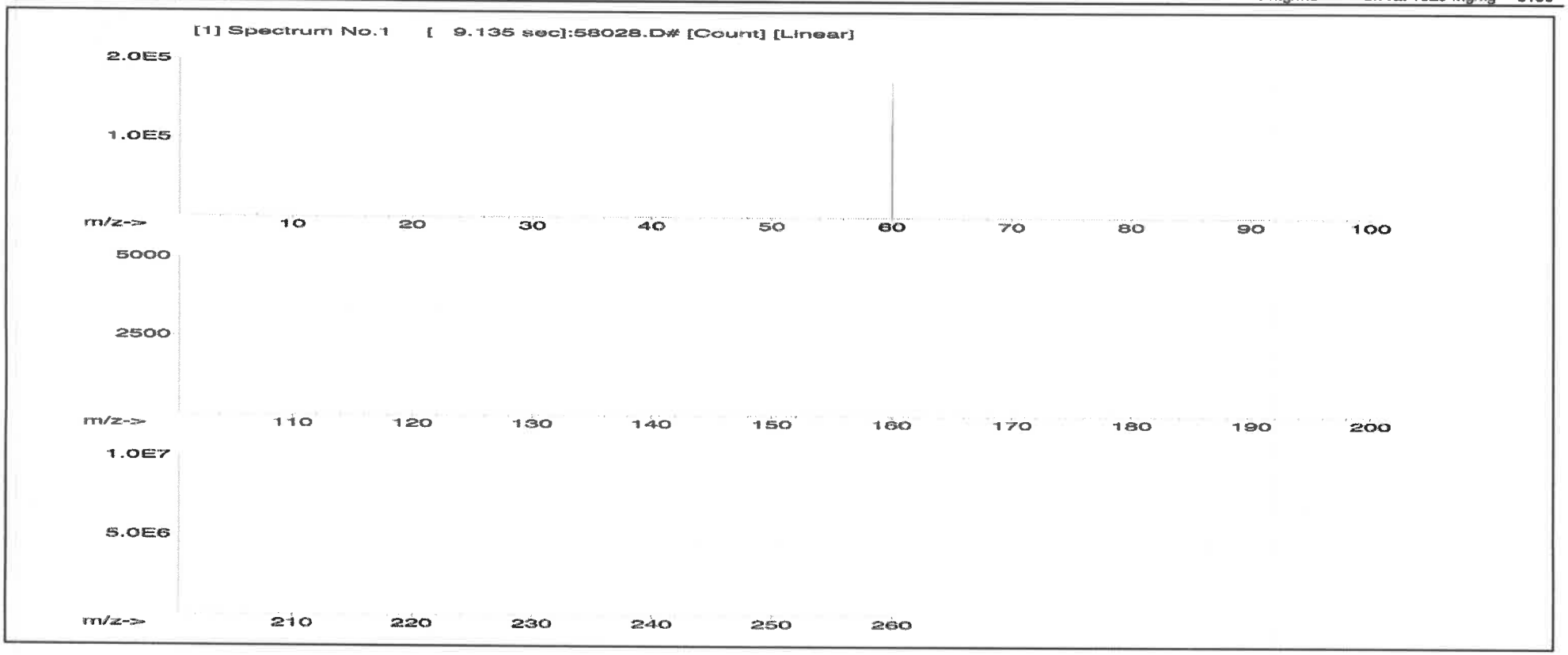
CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57028**			
Lot Number:	**062024**	24002546	Nitric Acid	
Description:	**Nickel (Ni)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062027			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Formulated **By:**	Benson Chan	062024
Reviewed By:	Pedro L. Rentas	062024

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Nickel(II) nitrate hexahydrate (Ni)	58128	062023	0.1000	200.0	0.084	1000	10000.4	**1000.0**	2.2	13478-00-7	1 mg/m3	orl-rat 1620 mg/kg	3136



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	T	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certified Reference Material CRM

M6030

R: 8/5/24

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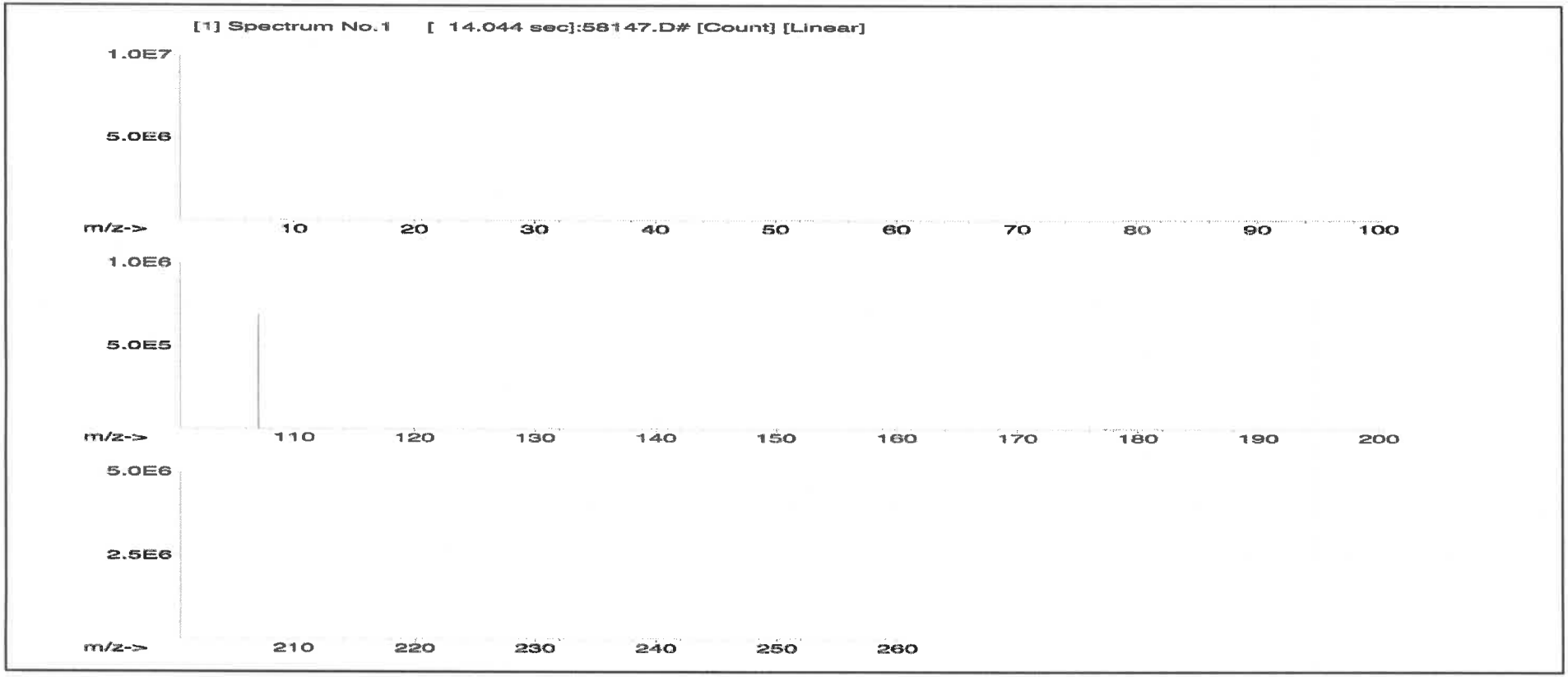
CERTIFIED WEIGHT REPORT:

Part Number:	**57047**		**Lot #**		
Lot Number:	**122823**	**Solvent:**	24002546	Nitric Acid	
Description:	**Silver (Ag)**	2%	80.0 (mL)	Nitric Acid	
Expiration Date:	122826				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	4000.30	0.058	Flask Uncertainty		

Formulated By:	Benson Chan	122823
Reviewed By:	Pedro L. Rentas	122823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Silver nitrate (Ag)	IN035	J0612AGA1	1000.0	99.9999	0.10	63.7	6.27992	6.27998	**1000.0**	**2.0**	7761-88-8	10 ug/m3	NA	3151



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	T	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* 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).

opened : 3/24/25

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CERTIFIED WEIGHT REPORT:

M6160

Part Number: 57051
Lot Number: 071724
Description: Antimony (Sb)
Expiration Date: 071727
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 2000.26

Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

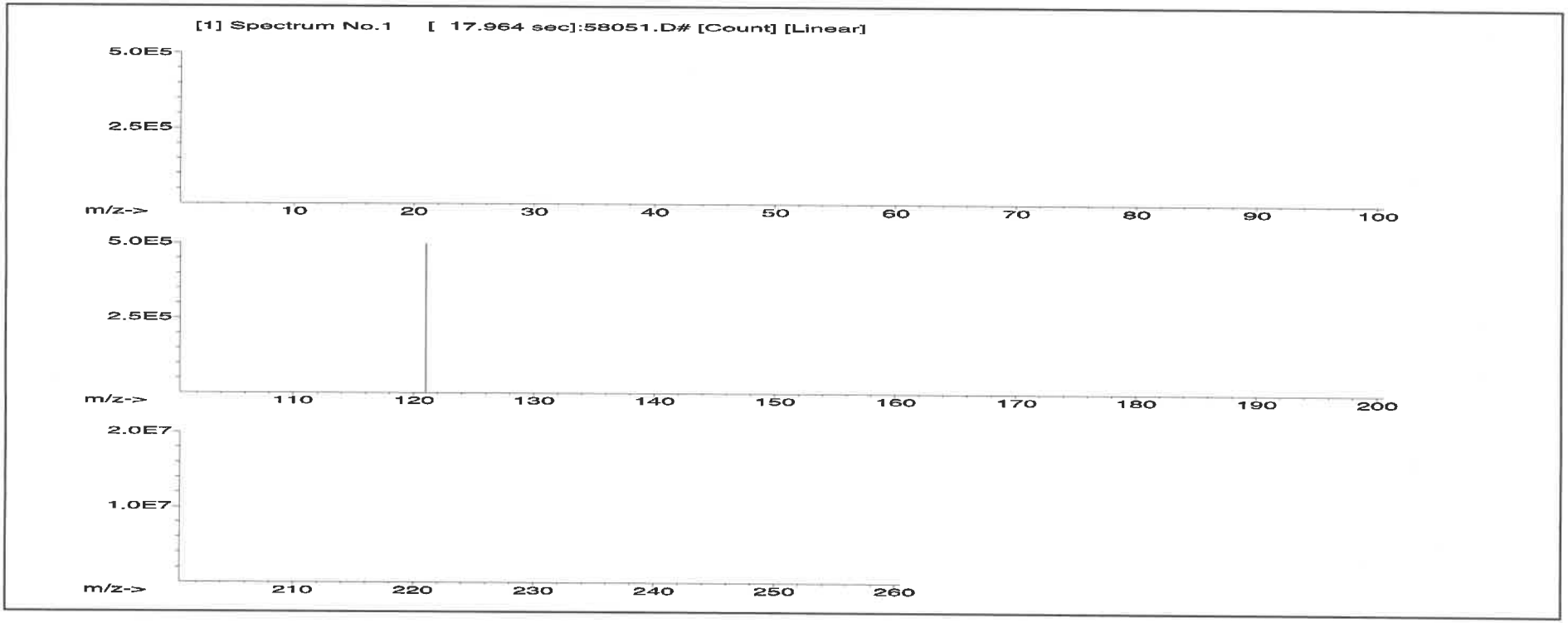
Giovanni Esposito

Formulated By:	Giovanni Esposito	071724

Pedro Rentas

Reviewed By:	Pedro L. Rentas	071724

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Antimony (Sb)	58151	060324	0.1000	200.0	0.084	1000	10001.4	**1000.0**	**2.2**	7440-36-0	0.5 mg/m3	orl-rat 7000 mg/kg	3102a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	T	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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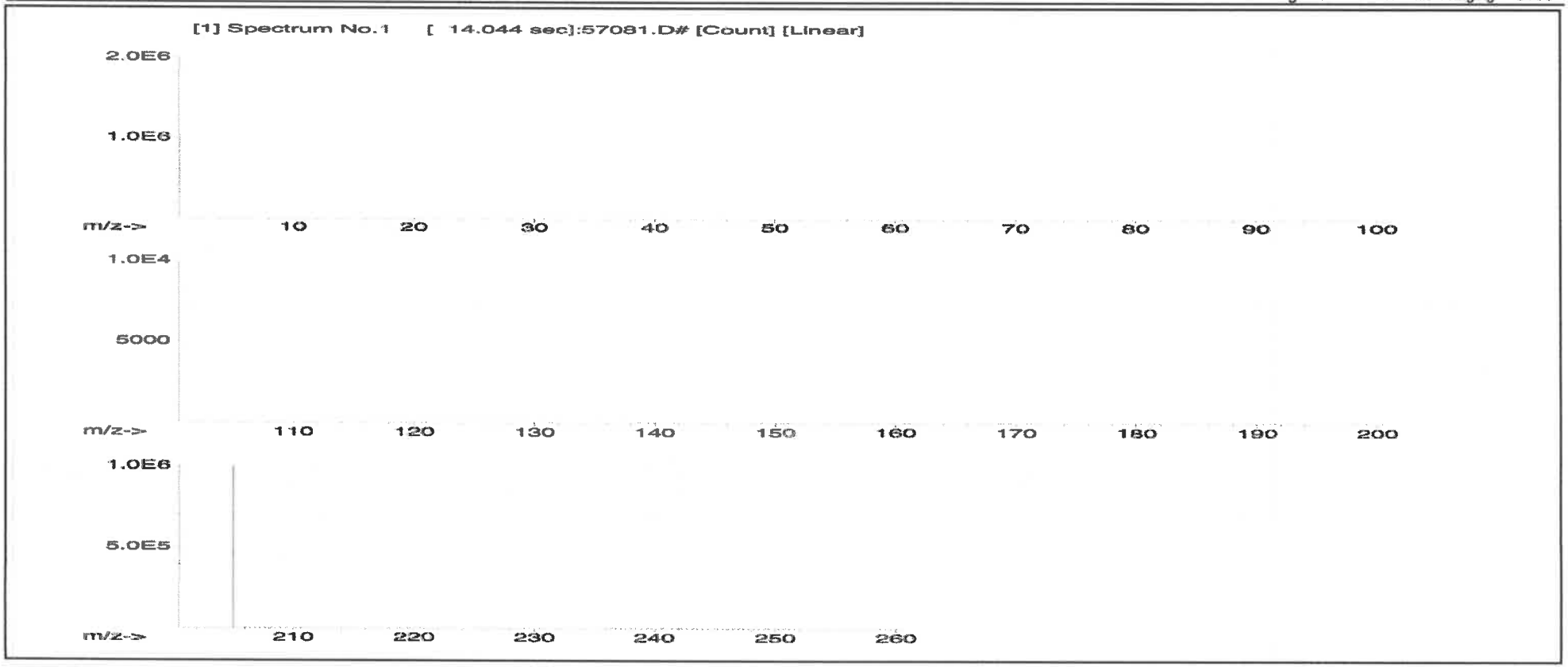
CERTIFIED WEIGHT REPORT:

Part Number:	**57081**		**Lot #**		
Lot Number:	**062724**	**Solvent:**	24002546	Nitric Acid	
Description:	**Thallium (Tl)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	062727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.1	0.10	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	062724
Reviewed By:	Pedro L. Rentas	062724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Thallium nitrate (Tl)	IN037	BCCF4399	1000	99.999	0.10	77.0	2.5975	2.5977	**1000.1**	**2.0**	10102-45-1	0.1 mg/m3	orl-mus 15mg/kg	3158



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	T	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6021

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Bc. 8/5/24

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**			
Lot Number:	**062424**	24002546	Nitric Acid	
Description:	**Vanadium (V)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	062427			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.3	0.06	Flask Uncertainty	

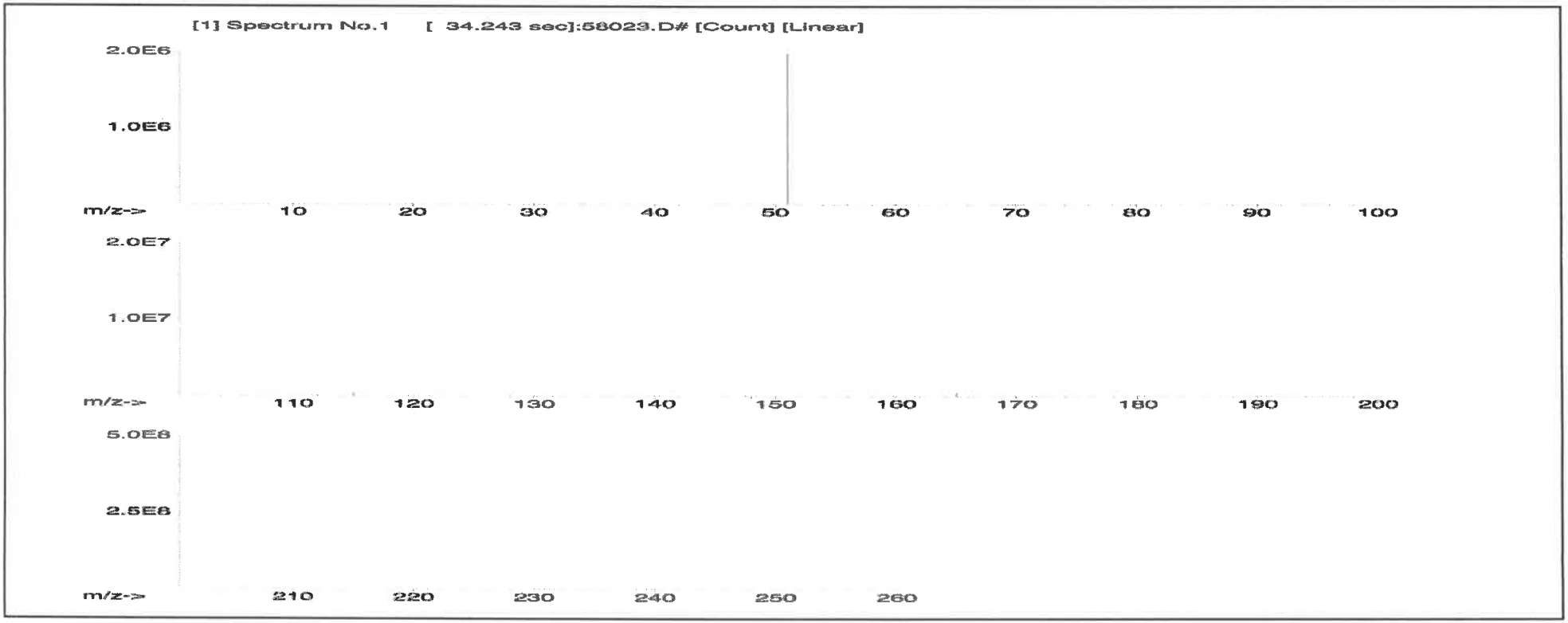
Aleah O'Brady

Formulated By:	Aleah O'Brady	062424

Pedro Rentas

Reviewed By:	Pedro L. Rentas	062424

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium metavanadate (V)	58123	021224	0.1000	200.0	0.084	1000	10000.3	**1000.0**	**2.2**	7803-55-6	0.05 mg/m3	orl-rat 58.1mg/kg	3165



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Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
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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. Q3368
COC Number 2045360

CLIENT INFORMATION

REPORT TO BE SENT TO:
COMPANY: Aramark Uniforms
ADDRESS: 740 Frelinghuysen Ave
CITY Newark STATE: NJ ZIP: 07114
ATTENTION: Jarrod Mills
PHONE: 973-824-1101 FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME:
PROJECT NO.: LOCATION:
PROJECT MANAGER:
e-mail:
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: PO#:
ADDRESS:
CITY STATE: ZIP:
ATTENTION: PHONE:

DATA TURNAROUND INFORMATION

FAX (RUSH) _____ DAYS*
HARDCOPY (DATA PACKAGE): _____ DAYS*
EDD: _____ DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

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 _____

ANALYSIS

PRESERVATIVES

COMMENTS

← Specify Preservatives
A-HCl D-NaOH
B-HN03 E-ICE
C-H2SO4 F-OTHER

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE COMP	SAMPLE TYPE GRAB	SAMPLE COLLECTION DATE	SAMPLE COLLECTION TIME	# OF BOTTLES	1	2	3	4	5	6	7	8	9
1.	Outside Dumpster	S		✓	10.16.25	1300	7									
2.	Press Sludge			✓		1304	7									
3.	Tank 1			✓		1308	7									
4.	Tank 2			✓		1312	7									
5.	Oil Sludge			✓		1315	7									
6.																
7.																
8.																
9.																
10.																

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER:	DATE/TIME:	RECEIVED BY:	DATE/TIME:
1.	10-16-25 1340	1.	10.16.25 1340
2.		2.	
3.	10-16-25 1815	3.	

Conditions of bottles or coolers at receipt: ❑ COMPLIANT ❑ NON COMPLIANT ❑ COOLER TEMP 3.1 °C
Comments:

Page _____ of

CLIENT: ❑ Hand Delivered ❑ Other

Shipment Complete ❑ YES ❑ NO

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WHITE - ALLIANCE COPY FOR RETURN TO CLIENT YELLOW - ALLIANCE COPY PINK - SAMPLER COPY

Outlook

RE: [WMSolutions.com] Profile 100601PAE (Vestis Uniform Services) has been returned to your drafts tab

From Barnes, Tommy <tommy.barnes@vestis.com>
Date Mon 10/6/2025 10:25 AM
To Vanegas, Jose <Jose.Vanegas@vestis.com>
Cc Dikos, Tom <tom.dikos@vestis.com>; Castillo Vasquez, Gustavo A. <gustavo.castillo@vestis.com>; Williams III, Jack <jack.williams@vestis.com>; Romain, Sobner <sobner.romain@vestis.com>

Jose,
I will complete Form 25R and also fix the section G of the profile.
Unfortunately, it looks like we need to run additional analysis on the sludge per the landfill.
Can you please call your lab (Alliance Technical Group 908-789-8900) and let them know you need to analyze your filter cake asap? It should be analyzed for the following:

- Oil & Grease (as received)
- Paint Filter Test
- Total PCBs (mg/kg)
- Total Solids (as received)
- Total Volatile Solids (as received)
- Ammonia-Nitrogen (ASTM Extraction - mg/L)
- Chemical Oxygen Demand (ASTM Extraction - mg/L)
- Oil & Grease (ASTM Extraction - mg/L)
- Total Solids (ASTM Extraction - mg/L)
- pH (ASTM Extraction)
- TCLP Copper
- TCLP Nickel
- TCLP Zinc
- TCLP Pesticides TCLP Herbicides

Thanks,

Tommy Barnes
Manager, Environmental Compliance
M: 317.910.4373
tommy.barnes@vestis.com | www.vestis.com

vestis
Uniforms and Workplace Supplies

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From: Vanegas, Jose <Jose.Vanegas@vestis.com>
Sent: Monday, October 6, 2025 8:51 AM
To: Barnes, Tommy <tommy.barnes@vestis.com>

284 Sheffield Street, Mountainside NJ 07092 (908)-789-8900 Fax : 908 789 8922

Laboratory Certification

Certified By	License No.
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255425
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	TX-C25-00189
Virginia	460312