284 Sheffield Street, Mountainside, New Jersey 07092, Phone : 908 789 8900,
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DATA PACKAGE

METALS

PROJECT NAME : RAYMARK SUPERFUND SITE

NOBIS GROUP

585 Middlesex Street

Lowell, MA - 01851

Phone No: 978-683-0891

ORDER ID : P5306

ATTENTION : Adam Roy

Laboratory Certification ID # 20012

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Cover Page

Order ID : P5306

Project ID : Raymark Superfund Site

Client : Nobis Group

Lab Sample Number	Client Sample Number
P5306-01	OU4-VSL-07-121224
P5306-02	OU4-VSL-07-121224
P5306-03	OU4-VSL-08-121224
P5306-04	OU4-VSL-08-121224
P5306-05	OU4-VSL-09-121224
P5306-06	OU4-VSL-09-121224
P5306-07	OU4-VSL-10-121224
P5306-08	OU4-VSL-10-121224
P5306-09	OU4-VSL-11-121224
P5306-10	OU4-VSL-11-121224
P5306-11	OU4-VSL-12-121224
P5306-12	OU4-VSL-12-121224
P5306-13	OU4-VSL-13-121224
P5306-14	OU4-VSL-13-121224
P5306-15	OU4-VSL-14-121224
P5306-16	OU4-VSL-14-121224
P5306-17	OU4-VSL-06R-121224
P5306-18	OU4-VSL-06R-121224

I certify that the data package is in compliance with the terms and conditions of the contract,both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hard copy data package has been authorized by the laboratory manager or his designee, as verified by the following signature.

Signature : _____ Date: 12/31/2024

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012

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CASE NARRATIVE

Nobis Group
Project Name: Raymark Superfund Site
Project # N/A
Chemtech Project # P5306
Test Name: Metals ICP-TAL,Metals Group6,Mercury

A. Number of Samples and Date of Receipt:
18 Solid samples were received on 12/17/2024.

B. Parameters:
According to the Chain of Custody document, the following analyses were requested: Cyanide, Herbicide Group1, Mercury, Metals Group6, Metals ICP-TAL, METALS-TAL, PCB, Pesticide-TCL, SPLP Extraction, SPLP Mercury, SPLP MetalGroup3, SPLP MetalGroup6, SVOCMS Group3 and VOCMS Group3. This data package contains results for Metals ICP-TAL,Metals Group6,Mercury.

C. Analytical Techniques:
The analysis of Metals Group6,Metals ICP-TAL was based on method 6010D, digestion based on method 3050 (soils). The analysis and digestion of Mercury was based on method 7471B.

D. QA/ QC Samples:

The Holding Times were met for all analysis.
The Blank Spike met requirements for all samples.
The Duplicate analysis met criteria for all samples.
The Matrix Spike (HR-04-121624MS) analysis met criteria for all samples except for Mercury due to sample matrix interference. The Matrix Spike (OU4-VSL-06R-121224MS) analysis met criteria for all samples except for Beryllium, Chromium and Cobalt due to Chemical Interference during Digestion Process.
The Matrix Spike Duplicate (HR-04-121624MSD) analysis met criteria for all samples except for Mercury due to sample Matrix interference. The Matrix Spike Duplicate (OU4-VSL-06R-121224MSD) analysis met criteria for all samples except for Beryllium and Cobalt due to Chemical Interference during Digestion Process.
The Blank analysis did not indicate the presence of lab contamination.
The Calibration met the requirements.
The Serial Dilution met the acceptable requirements.

E. Additional Comments:

I certify that the data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed above. The laboratory manager or his designee, as verified by the following signature has authorized release of the data contained in this hard copy data package.

Signature_____

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

QA Control # A3040961

METALS CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: P5306 MATRIX: Solid

METHOD: 6010D,7471B

		NA	NO	YES
1.	Calibration Summary met criteria.			✓
2.	ICP Interference Check Sample Results Summary Submitted.			✓
3.	Serial Dilution Summary (if applicable) Submitted.			✓
4.	Laboratory Control Sample Summary (if applicable) Submitted.			✓
5.	Blank Contamination - If yes, list compounds and concentrations in each blank:		✓	
6.	Matrix Spike/Matrix Spike Duplicate Recoveries Met Criteria		✓	
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			
	The Matrix Spike (HR-04-121624MS) analysis met criteria for all samples except for Mercury due to sample matrix interference. The Matrix Spike (OU4-VSL-06R-121224MS) analysis met criteria for all samples except for Beryllium, Chromium and Cobalt due to Chemical Interference during Digestion Process. The Matrix Spike Duplicate (HR-04-121624MSD) analysis met criteria for all samples except for Mercury due to sample Matrix interference. The Matrix Spike Duplicate (OU4-VSL-06R-121224MSD) analysis met criteria for all samples except for Beryllium and Cobalt due to Chemical Interference during Digestion Process.			
7.	Sample Duplicate Analysis Met QC Criteria			✓
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			
8.	Digestion Holding Time Met			✓
	If not met, list number of days exceeded for each sample:			
9.	Analysis Holding Time Met			✓
	If not met, list those compounds and their recoveries which fall outside the acceptable range.			

ADDITIONAL COMMENTS:

QA REVIEW Date

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APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: P5306

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

QA Review Signature: SOHIL JODHANI **Date:** 12/31/2024

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LAB CHRONICLE

OrderID:	P5306	**OrderDate:**	12/17/2024 10:24:00 AM
Client:	Nobis Group	**Project:**	Raymark Superfund Site
Contact:	Adam Roy	**Location:**	L41,L61,VOA Ref. #2 Soil

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
P5306-01	**OU4-VSL-07-121224**	**SOIL**			**12/12/24**			**12/17/24**
			Mercury	7471B		12/18/24	12/18/24	
			Metals ICP-TAL	6010D		12/17/24	12/18/24	
P5306-03	**OU4-VSL-08-121224**	**SOIL**			**12/12/24**			**12/17/24**
			Mercury	7471B		12/18/24	12/18/24	
			Metals ICP-TAL	6010D		12/17/24	12/18/24	
P5306-05	**OU4-VSL-09-121224**	**SOIL**			**12/12/24**			**12/17/24**
			Mercury	7471B		12/18/24	12/18/24	
			Metals ICP-TAL	6010D		12/17/24	12/18/24	
P5306-07	**OU4-VSL-10-121224**	**SOIL**			**12/12/24**			**12/17/24**
			Mercury	7471B		12/18/24	12/18/24	
			Metals ICP-TAL	6010D		12/17/24	12/18/24	
P5306-09	**OU4-VSL-11-121224**	**SOIL**			**12/12/24**			**12/17/24**
			Mercury	7471B		12/18/24	12/18/24	
			Metals ICP-TAL	6010D		12/17/24	12/18/24	
P5306-11	**OU4-VSL-12-121224**	**SOIL**			**12/12/24**			**12/17/24**
			Mercury	7471B		12/18/24	12/18/24	
			Metals ICP-TAL	6010D		12/17/24	12/18/24	
P5306-13	**OU4-VSL-13-121224**	**SOIL**			**12/12/24**			**12/17/24**
			Mercury	7471B		12/18/24	12/18/24	
			Metals ICP-TAL	6010D		12/17/24	12/18/24	
P5306-15	**OU4-VSL-14-121224**	**SOIL**			**12/12/24**			**12/17/24**
			Mercury	7471B		12/18/24	12/18/24	
			Metals ICP-TAL	6010D		12/17/24	12/18/24	
P5306-17	**OU4-VSL-06R-121224**	**SOIL**			**12/12/24**			**12/17/24**

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LAB CHRONICLE

Metals Group6	6010D	12/17/24	12/23/24

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Hit Summary Sheet
SW-846

SDG No.: P5306 **Order ID:** P5306

Client: Nobis Group **Project ID:** Raymark Superfund Site

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : OU4-VSL-07-121224									
P5306-01	OU4-VSL-07-121224	SOIL	Aluminum	5710		2.41	4.00	5.01	mg/Kg
P5306-01	OU4-VSL-07-121224	SOIL	Antimony	0.20	J	0.15	0.63	2.50	mg/Kg
P5306-01	OU4-VSL-07-121224	SOIL	Barium	12.8		0.64	1.25	5.01	mg/Kg
P5306-01	OU4-VSL-07-121224	SOIL	Beryllium	0.37		0.012	0.075	0.30	mg/Kg
P5306-01	OU4-VSL-07-121224	SOIL	Cadmium	2.00		0.016	0.075	0.30	mg/Kg
P5306-01	OU4-VSL-07-121224	SOIL	Calcium	5590		2.80	25.0	100	mg/Kg
P5306-01	OU4-VSL-07-121224	SOIL	Chromium	0.68		0.054	0.13	0.50	mg/Kg
P5306-01	OU4-VSL-07-121224	SOIL	Cobalt	16.1		0.058	0.38	1.50	mg/Kg
P5306-01	OU4-VSL-07-121224	SOIL	Copper	35.0		0.47	0.80	1.00	mg/Kg
P5306-01	OU4-VSL-07-121224	SOIL	Iron	25600		2.69	4.00	5.01	mg/Kg
P5306-01	OU4-VSL-07-121224	SOIL	Lead	2.34		0.15	0.48	0.60	mg/Kg
P5306-01	OU4-VSL-07-121224	SOIL	Magnesium	4540		3.43	25.0	100	mg/Kg
P5306-01	OU4-VSL-07-121224	SOIL	Manganese	237		0.071	0.25	1.00	mg/Kg
P5306-01	OU4-VSL-07-121224	SOIL	Mercury	0.0070	J	0.0060	0.010	0.013	mg/Kg
P5306-01	OU4-VSL-07-121224	SOIL	Nickel	6.04		0.090	0.50	2.00	mg/Kg
P5306-01	OU4-VSL-07-121224	SOIL	Potassium	76.8	J	28.7	80.1	100	mg/Kg
P5306-01	OU4-VSL-07-121224	SOIL	Sodium	892		36.1	80.1	100	mg/Kg
P5306-01	OU4-VSL-07-121224	SOIL	Vanadium	75.9		0.27	1.00	2.00	mg/Kg
P5306-01	OU4-VSL-07-121224	SOIL	Zinc	32.2		0.11	0.50	2.00	mg/Kg
Client ID : OU4-VSL-08-121224									
P5306-03	OU4-VSL-08-121224	SOIL	Aluminum	5550		2.58	4.28	5.35	mg/Kg
P5306-03	OU4-VSL-08-121224	SOIL	Barium	4.22	J	0.68	1.34	5.35	mg/Kg
P5306-03	OU4-VSL-08-121224	SOIL	Beryllium	0.21	J	0.013	0.080	0.32	mg/Kg
P5306-03	OU4-VSL-08-121224	SOIL	Cadmium	0.65		0.017	0.080	0.32	mg/Kg
P5306-03	OU4-VSL-08-121224	SOIL	Calcium	4180		2.99	26.7	107	mg/Kg
P5306-03	OU4-VSL-08-121224	SOIL	Chromium	1.79		0.058	0.13	0.54	mg/Kg
P5306-03	OU4-VSL-08-121224	SOIL	Cobalt	11.3		0.062	0.40	1.60	mg/Kg
P5306-03	OU4-VSL-08-121224	SOIL	Copper	37.3		0.50	0.86	1.07	mg/Kg
P5306-03	OU4-VSL-08-121224	SOIL	Iron	16600		2.88	4.28	5.35	mg/Kg
P5306-03	OU4-VSL-08-121224	SOIL	Lead	1.33		0.16	0.51	0.64	mg/Kg
P5306-03	OU4-VSL-08-121224	SOIL	Magnesium	4050		3.67	26.7	107	mg/Kg
P5306-03	OU4-VSL-08-121224	SOIL	Manganese	105		0.076	0.27	1.07	mg/Kg
P5306-03	OU4-VSL-08-121224	SOIL	Nickel	9.54		0.096	0.54	2.14	mg/Kg
P5306-03	OU4-VSL-08-121224	SOIL	Potassium	93.2	J	30.7	85.5	107	mg/Kg
P5306-03	OU4-VSL-08-121224	SOIL	Sodium	1420		38.6	85.5	107	mg/Kg
P5306-03	OU4-VSL-08-121224	SOIL	Vanadium	52.1		0.29	1.07	2.14	mg/Kg
P5306-03	OU4-VSL-08-121224	SOIL	Zinc	19.6		0.12	0.54	2.14	mg/Kg

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Hit Summary Sheet
SW-846

SDG No.: P5306 **Order ID:** P5306

Client: Nobis Group **Project ID:** Raymark Superfund Site

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : OU4-VSL-09-121224									
P5306-05	OU4-VSL-09-121224	SOIL	Aluminum	5360		2.28	3.78	4.72	mg/Kg
P5306-05	OU4-VSL-09-121224	SOIL	Arsenic	0.82	J	0.27	0.76	0.95	mg/Kg
P5306-05	OU4-VSL-09-121224	SOIL	Barium	10.9		0.61	1.18	4.72	mg/Kg
P5306-05	OU4-VSL-09-121224	SOIL	Beryllium	0.35		0.011	0.071	0.28	mg/Kg
P5306-05	OU4-VSL-09-121224	SOIL	Cadmium	2.01		0.015	0.071	0.28	mg/Kg
P5306-05	OU4-VSL-09-121224	SOIL	Calcium	5030		2.64	23.6	94.5	mg/Kg
P5306-05	OU4-VSL-09-121224	SOIL	Chromium	0.46	J	0.051	0.12	0.47	mg/Kg
P5306-05	OU4-VSL-09-121224	SOIL	Cobalt	15.6		0.055	0.35	1.42	mg/Kg
P5306-05	OU4-VSL-09-121224	SOIL	Copper	35.5		0.44	0.76	0.95	mg/Kg
P5306-05	OU4-VSL-09-121224	SOIL	Iron	25300		2.54	3.78	4.72	mg/Kg
P5306-05	OU4-VSL-09-121224	SOIL	Lead	2.42		0.14	0.45	0.57	mg/Kg
P5306-05	OU4-VSL-09-121224	SOIL	Magnesium	3930		3.24	23.6	94.5	mg/Kg
P5306-05	OU4-VSL-09-121224	SOIL	Manganese	222		0.067	0.24	0.95	mg/Kg
P5306-05	OU4-VSL-09-121224	SOIL	Nickel	5.35		0.085	0.47	1.89	mg/Kg
P5306-05	OU4-VSL-09-121224	SOIL	Potassium	64.7	J	27.1	75.6	94.5	mg/Kg
P5306-05	OU4-VSL-09-121224	SOIL	Sodium	718		34.1	75.6	94.5	mg/Kg
P5306-05	OU4-VSL-09-121224	SOIL	Vanadium	75.6		0.26	0.95	1.89	mg/Kg
P5306-05	OU4-VSL-09-121224	SOIL	Zinc	40.5		0.10	0.47	1.89	mg/Kg
Client ID : OU4-VSL-10-121224									
P5306-07	OU4-VSL-10-121224	SOIL	Aluminum	5240		2.30	3.81	4.76	mg/Kg
P5306-07	OU4-VSL-10-121224	SOIL	Antimony	0.20	J	0.14	0.60	2.38	mg/Kg
P5306-07	OU4-VSL-10-121224	SOIL	Barium	14.9		0.61	1.19	4.76	mg/Kg
P5306-07	OU4-VSL-10-121224	SOIL	Beryllium	0.37		0.011	0.071	0.29	mg/Kg
P5306-07	OU4-VSL-10-121224	SOIL	Cadmium	2.30		0.015	0.071	0.29	mg/Kg
P5306-07	OU4-VSL-10-121224	SOIL	Calcium	5210		2.67	23.8	95.3	mg/Kg
P5306-07	OU4-VSL-10-121224	SOIL	Chromium	0.30	J	0.051	0.12	0.48	mg/Kg
P5306-07	OU4-VSL-10-121224	SOIL	Cobalt	16.9		0.055	0.36	1.43	mg/Kg
P5306-07	OU4-VSL-10-121224	SOIL	Copper	39.3		0.45	0.76	0.95	mg/Kg
P5306-07	OU4-VSL-10-121224	SOIL	Iron	26400		2.56	3.81	4.76	mg/Kg
P5306-07	OU4-VSL-10-121224	SOIL	Lead	2.22		0.14	0.46	0.57	mg/Kg
P5306-07	OU4-VSL-10-121224	SOIL	Magnesium	3780		3.27	23.8	95.3	mg/Kg
P5306-07	OU4-VSL-10-121224	SOIL	Manganese	239		0.068	0.24	0.95	mg/Kg
P5306-07	OU4-VSL-10-121224	SOIL	Nickel	4.87		0.086	0.48	1.91	mg/Kg
P5306-07	OU4-VSL-10-121224	SOIL	Potassium	64.5	J	27.3	76.2	95.3	mg/Kg
P5306-07	OU4-VSL-10-121224	SOIL	Sodium	742		34.4	76.2	95.3	mg/Kg
P5306-07	OU4-VSL-10-121224	SOIL	Vanadium	76.9		0.26	0.95	1.91	mg/Kg
P5306-07	OU4-VSL-10-121224	SOIL	Zinc	35.4		0.11	0.48	1.91	mg/Kg

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Hit Summary Sheet
SW-846

SDG No.: P5306 **Order ID:** P5306

Client: Nobis Group **Project ID:** Raymark Superfund Site

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
Client ID : OU4-VSL-11-121224									
P5306-09	OU4-VSL-11-121224	SOIL	Aluminum	4830		2.46	4.09	5.11	mg/Kg
P5306-09	OU4-VSL-11-121224	SOIL	Barium	11.6		0.65	1.28	5.11	mg/Kg
P5306-09	OU4-VSL-11-121224	SOIL	Beryllium	0.35		0.012	0.077	0.31	mg/Kg
P5306-09	OU4-VSL-11-121224	SOIL	Cadmium	1.79		0.016	0.077	0.31	mg/Kg
P5306-09	OU4-VSL-11-121224	SOIL	Calcium	4540		2.86	25.6	102	mg/Kg
P5306-09	OU4-VSL-11-121224	SOIL	Chromium	0.31	J	0.055	0.13	0.51	mg/Kg
P5306-09	OU4-VSL-11-121224	SOIL	Cobalt	15.8		0.059	0.38	1.53	mg/Kg
P5306-09	OU4-VSL-11-121224	SOIL	Copper	38.6		0.48	0.82	1.02	mg/Kg
P5306-09	OU4-VSL-11-121224	SOIL	Iron	24300		2.75	4.09	5.11	mg/Kg
P5306-09	OU4-VSL-11-121224	SOIL	Lead	2.43		0.15	0.49	0.61	mg/Kg
P5306-09	OU4-VSL-11-121224	SOIL	Magnesium	3730		3.51	25.6	102	mg/Kg
P5306-09	OU4-VSL-11-121224	SOIL	Manganese	222		0.073	0.26	1.02	mg/Kg
P5306-09	OU4-VSL-11-121224	SOIL	Nickel	4.66		0.092	0.51	2.04	mg/Kg
P5306-09	OU4-VSL-11-121224	SOIL	Potassium	58.6	J	29.3	81.8	102	mg/Kg
P5306-09	OU4-VSL-11-121224	SOIL	Sodium	615		36.9	81.8	102	mg/Kg
P5306-09	OU4-VSL-11-121224	SOIL	Vanadium	67.4		0.28	1.02	2.04	mg/Kg
P5306-09	OU4-VSL-11-121224	SOIL	Zinc	33.0		0.11	0.51	2.04	mg/Kg
Client ID : OU4-VSL-12-121224									
P5306-11	OU4-VSL-12-121224	SOIL	Aluminum	5780		2.18	3.61	4.51	mg/Kg
P5306-11	OU4-VSL-12-121224	SOIL	Arsenic	0.29	J	0.26	0.72	0.90	mg/Kg
P5306-11	OU4-VSL-12-121224	SOIL	Barium	3.11	J	0.58	1.13	4.51	mg/Kg
P5306-11	OU4-VSL-12-121224	SOIL	Beryllium	0.21	J	0.011	0.068	0.27	mg/Kg
P5306-11	OU4-VSL-12-121224	SOIL	Cadmium	0.82		0.014	0.068	0.27	mg/Kg
P5306-11	OU4-VSL-12-121224	SOIL	Calcium	4280		2.53	22.6	90.3	mg/Kg
P5306-11	OU4-VSL-12-121224	SOIL	Chromium	1.91		0.049	0.11	0.45	mg/Kg
P5306-11	OU4-VSL-12-121224	SOIL	Cobalt	11.4		0.052	0.34	1.35	mg/Kg
P5306-11	OU4-VSL-12-121224	SOIL	Copper	36.6		0.42	0.72	0.90	mg/Kg
P5306-11	OU4-VSL-12-121224	SOIL	Iron	16100		2.43	3.61	4.51	mg/Kg
P5306-11	OU4-VSL-12-121224	SOIL	Lead	1.34		0.14	0.43	0.54	mg/Kg
P5306-11	OU4-VSL-12-121224	SOIL	Magnesium	4170		3.10	22.6	90.3	mg/Kg
P5306-11	OU4-VSL-12-121224	SOIL	Manganese	91.9		0.064	0.23	0.90	mg/Kg
P5306-11	OU4-VSL-12-121224	SOIL	Nickel	10.3		0.081	0.45	1.81	mg/Kg
P5306-11	OU4-VSL-12-121224	SOIL	Potassium	87.6	J	25.9	72.2	90.3	mg/Kg
P5306-11	OU4-VSL-12-121224	SOIL	Sodium	1520		32.6	72.2	90.3	mg/Kg
P5306-11	OU4-VSL-12-121224	SOIL	Vanadium	55.4		0.24	0.90	1.81	mg/Kg
P5306-11	OU4-VSL-12-121224	SOIL	Zinc	18.3		0.099	0.45	1.81	mg/Kg
Client ID : OU4-VSL-13-121224									
P5306-13	OU4-VSL-13-121224	SOIL	Aluminum	4540		2.26	3.75	4.69	mg/Kg

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Hit Summary Sheet
SW-846

SDG No.: P5306 **Order ID:** P5306

Client: Nobis Group **Project ID:** Raymark Superfund Site

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	LOD	RDL	Units
P5306-13	OU4-VSL-13-121224	SOIL	Barium	2.50	J	0.60	1.17	4.69	mg/Kg
P5306-13	OU4-VSL-13-121224	SOIL	Beryllium	0.18	J	0.011	0.070	0.28	mg/Kg
P5306-13	OU4-VSL-13-121224	SOIL	Cadmium	0.54		0.015	0.070	0.28	mg/Kg
P5306-13	OU4-VSL-13-121224	SOIL	Calcium	3320		2.63	23.4	93.8	mg/Kg
P5306-13	OU4-VSL-13-121224	SOIL	Chromium	1.73		0.051	0.12	0.47	mg/Kg
P5306-13	OU4-VSL-13-121224	SOIL	Cobalt	9.10		0.054	0.35	1.41	mg/Kg
P5306-13	OU4-VSL-13-121224	SOIL	Copper	30.6		0.44	0.75	0.94	mg/Kg
P5306-13	OU4-VSL-13-121224	SOIL	Iron	12900		2.52	3.75	4.69	mg/Kg
P5306-13	OU4-VSL-13-121224	SOIL	Lead	0.97		0.14	0.45	0.56	mg/Kg
P5306-13	OU4-VSL-13-121224	SOIL	Magnesium	3490		3.22	23.4	93.8	mg/Kg
P5306-13	OU4-VSL-13-121224	SOIL	Manganese	85.0		0.067	0.23	0.94	mg/Kg
P5306-13	OU4-VSL-13-121224	SOIL	Mercury	0.0080	J	0.0060	0.011	0.013	mg/Kg
P5306-13	OU4-VSL-13-121224	SOIL	Nickel	8.22		0.084	0.47	1.88	mg/Kg
P5306-13	OU4-VSL-13-121224	SOIL	Potassium	69.4	J	26.9	75.0	93.8	mg/Kg
P5306-13	OU4-VSL-13-121224	SOIL	Sodium	1190		33.8	75.0	93.8	mg/Kg
P5306-13	OU4-VSL-13-121224	SOIL	Vanadium	47.5		0.25	0.94	1.88	mg/Kg
P5306-13	OU4-VSL-13-121224	SOIL	Zinc	15.4		0.10	0.47	1.88	mg/Kg
Client ID :	**OU4-VSL-14-121224**								
P5306-15	OU4-VSL-14-121224	SOIL	Aluminum	4950		2.44	4.05	5.06	mg/Kg
P5306-15	OU4-VSL-14-121224	SOIL	Barium	2.81	J	0.65	1.27	5.06	mg/Kg
P5306-15	OU4-VSL-14-121224	SOIL	Beryllium	0.20	J	0.012	0.076	0.30	mg/Kg
P5306-15	OU4-VSL-14-121224	SOIL	Cadmium	0.56		0.016	0.076	0.30	mg/Kg
P5306-15	OU4-VSL-14-121224	SOIL	Calcium	3660		2.83	25.3	101	mg/Kg
P5306-15	OU4-VSL-14-121224	SOIL	Chromium	1.91		0.055	0.13	0.51	mg/Kg
P5306-15	OU4-VSL-14-121224	SOIL	Cobalt	10.1		0.059	0.38	1.52	mg/Kg
P5306-15	OU4-VSL-14-121224	SOIL	Copper	33.2		0.48	0.81	1.01	mg/Kg
P5306-15	OU4-VSL-14-121224	SOIL	Iron	14400		2.72	4.05	5.06	mg/Kg
P5306-15	OU4-VSL-14-121224	SOIL	Lead	1.07		0.15	0.49	0.61	mg/Kg
P5306-15	OU4-VSL-14-121224	SOIL	Magnesium	3830		3.47	25.3	101	mg/Kg
P5306-15	OU4-VSL-14-121224	SOIL	Manganese	92.5		0.072	0.25	1.01	mg/Kg
P5306-15	OU4-VSL-14-121224	SOIL	Nickel	9.16		0.091	0.51	2.02	mg/Kg
P5306-15	OU4-VSL-14-121224	SOIL	Potassium	74.9	J	29.1	81.0	101	mg/Kg
P5306-15	OU4-VSL-14-121224	SOIL	Sodium	1340		36.5	81.0	101	mg/Kg
P5306-15	OU4-VSL-14-121224	SOIL	Vanadium	52.1		0.27	1.01	2.02	mg/Kg
P5306-15	OU4-VSL-14-121224	SOIL	Zinc	16.9		0.11	0.51	2.02	mg/Kg
Client ID :	**OU4-VSL-06R-121224**								
P5306-17	OU4-VSL-06R-121224	SOIL	Vanadium	74.6		0.24	0.91	1.81	mg/Kg

SAMPLE DATA

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

Report of Analysis

Client:	Nobis Group	Date Collected:	12/12/24
Project:	Raymark Superfund Site	Date Received:	12/17/24
Client Sample ID:	OU4-VSL-07-121224	SDG No.:	P5306
Lab Sample ID:	P5306-01	Matrix:	SOIL
Level (low/med):	low	% Solid:	90.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	5710		1	2.41	4.00	5.01	mg/Kg	12/17/24 14:00	12/18/24 16:36	SW6010	SW3050
7440-36-0	Antimony	0.20	J	1	0.15	0.63	2.50	mg/Kg	12/17/24 14:00	12/18/24 16:36	SW6010	SW3050
7440-38-2	Arsenic	0.80	U	1	0.29	0.80	1.00	mg/Kg	12/17/24 14:00	12/18/24 16:36	SW6010	SW3050
7440-39-3	Barium	12.8		1	0.64	1.25	5.01	mg/Kg	12/17/24 14:00	12/18/24 16:36	SW6010	SW3050
7440-41-7	Beryllium	0.37	N	1	0.012	0.075	0.30	mg/Kg	12/17/24 14:00	12/18/24 16:36	SW6010	SW3050
7440-43-9	Cadmium	2.00		1	0.016	0.075	0.30	mg/Kg	12/17/24 14:00	12/18/24 16:36	SW6010	SW3050
7440-70-2	Calcium	5590		1	2.80	25.0	100	mg/Kg	12/17/24 14:00	12/18/24 16:36	SW6010	SW3050
7440-47-3	Chromium	0.68	N	1	0.054	0.13	0.50	mg/Kg	12/17/24 14:00	12/18/24 16:36	SW6010	SW3050
7440-48-4	Cobalt	16.1	N	1	0.058	0.38	1.50	mg/Kg	12/17/24 14:00	12/18/24 16:36	SW6010	SW3050
7440-50-8	Copper	35.0		1	0.47	0.80	1.00	mg/Kg	12/17/24 14:00	12/18/24 16:36	SW6010	SW3050
7439-89-6	Iron	25600		1	2.69	4.00	5.01	mg/Kg	12/17/24 14:00	12/18/24 16:36	SW6010	SW3050
7439-92-1	Lead	2.34		1	0.15	0.48	0.60	mg/Kg	12/17/24 14:00	12/18/24 16:36	SW6010	SW3050
7439-95-4	Magnesium	4540		1	3.43	25.0	100	mg/Kg	12/17/24 14:00	12/18/24 16:36	SW6010	SW3050
7439-96-5	Manganese	237		1	0.071	0.25	1.00	mg/Kg	12/17/24 14:00	12/18/24 16:36	SW6010	SW3050
7439-97-6	Mercury	0.0070	JN	1	0.0060	0.010	0.013	mg/Kg	12/18/24 08:35	12/18/24 14:32	SW7471B	
7440-02-0	Nickel	6.04		1	0.090	0.50	2.00	mg/Kg	12/17/24 14:00	12/18/24 16:36	SW6010	SW3050
7440-09-7	Potassium	76.8	J	1	28.7	80.1	100	mg/Kg	12/17/24 14:00	12/18/24 16:36	SW6010	SW3050
7782-49-2	Selenium	0.80	U	1	0.33	0.80	1.00	mg/Kg	12/17/24 14:00	12/18/24 16:36	SW6010	SW3050
7440-22-4	Silver	0.25	U	1	0.052	0.25	0.50	mg/Kg	12/17/24 14:00	12/18/24 16:36	SW6010	SW3050
7440-23-5	Sodium	892		1	36.1	80.1	100	mg/Kg	12/17/24 14:00	12/18/24 16:36	SW6010	SW3050
7440-28-0	Thallium	1.00	U	1	0.44	1.00	2.00	mg/Kg	12/17/24 14:00	12/18/24 16:36	SW6010	SW3050
7440-62-2	Vanadium	75.9		1	0.27	1.00	2.00	mg/Kg	12/17/24 14:00	12/18/24 16:36	SW6010	SW3050
7440-66-6	Zinc	32.2		1	0.11	0.50	2.00	mg/Kg	12/17/24 14:00	12/18/24 16:36	SW6010	SW3050

Color Before:	Black	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

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

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

Report of Analysis

Client:	Nobis Group	Date Collected:	12/12/24
Project:	Raymark Superfund Site	Date Received:	12/17/24
Client Sample ID:	OU4-VSL-08-121224	SDG No.:	P5306
Lab Sample ID:	P5306-03	Matrix:	SOIL
Level (low/med):	low	% Solid:	90.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	5550		1	2.58	4.28	5.35	mg/Kg	12/17/24 14:00	12/18/24 16:40	SW6010	SW3050
7440-36-0	Antimony	0.67	U	1	0.16	0.67	2.67	mg/Kg	12/17/24 14:00	12/18/24 16:40	SW6010	SW3050
7440-38-2	Arsenic	0.86	U	1	0.31	0.86	1.07	mg/Kg	12/17/24 14:00	12/18/24 16:40	SW6010	SW3050
7440-39-3	Barium	4.22	J	1	0.68	1.34	5.35	mg/Kg	12/17/24 14:00	12/18/24 16:40	SW6010	SW3050
7440-41-7	Beryllium	0.21	JN	1	0.013	0.080	0.32	mg/Kg	12/17/24 14:00	12/18/24 16:40	SW6010	SW3050
7440-43-9	Cadmium	0.65		1	0.017	0.080	0.32	mg/Kg	12/17/24 14:00	12/18/24 16:40	SW6010	SW3050
7440-70-2	Calcium	4180		1	2.99	26.7	107	mg/Kg	12/17/24 14:00	12/18/24 16:40	SW6010	SW3050
7440-47-3	Chromium	1.79	N	1	0.058	0.13	0.54	mg/Kg	12/17/24 14:00	12/18/24 16:40	SW6010	SW3050
7440-48-4	Cobalt	11.3	N	1	0.062	0.40	1.60	mg/Kg	12/17/24 14:00	12/18/24 16:40	SW6010	SW3050
7440-50-8	Copper	37.3		1	0.50	0.86	1.07	mg/Kg	12/17/24 14:00	12/18/24 16:40	SW6010	SW3050
7439-89-6	Iron	16600		1	2.88	4.28	5.35	mg/Kg	12/17/24 14:00	12/18/24 16:40	SW6010	SW3050
7439-92-1	Lead	1.33		1	0.16	0.51	0.64	mg/Kg	12/17/24 14:00	12/18/24 16:40	SW6010	SW3050
7439-95-4	Magnesium	4050		1	3.67	26.7	107	mg/Kg	12/17/24 14:00	12/18/24 16:40	SW6010	SW3050
7439-96-5	Manganese	105		1	0.076	0.27	1.07	mg/Kg	12/17/24 14:00	12/18/24 16:40	SW6010	SW3050
7439-97-6	Mercury	0.012	UN	1	0.0070	0.012	0.015	mg/Kg	12/18/24 08:35	12/18/24 14:34	SW7471B	
7440-02-0	Nickel	9.54		1	0.096	0.54	2.14	mg/Kg	12/17/24 14:00	12/18/24 16:40	SW6010	SW3050
7440-09-7	Potassium	93.2	J	1	30.7	85.5	107	mg/Kg	12/17/24 14:00	12/18/24 16:40	SW6010	SW3050
7782-49-2	Selenium	0.86	U	1	0.35	0.86	1.07	mg/Kg	12/17/24 14:00	12/18/24 16:40	SW6010	SW3050
7440-22-4	Silver	0.27	U	1	0.056	0.27	0.54	mg/Kg	12/17/24 14:00	12/18/24 16:40	SW6010	SW3050
7440-23-5	Sodium	1420		1	38.6	85.5	107	mg/Kg	12/17/24 14:00	12/18/24 16:40	SW6010	SW3050
7440-28-0	Thallium	1.07	U	1	0.47	1.07	2.14	mg/Kg	12/17/24 14:00	12/18/24 16:40	SW6010	SW3050
7440-62-2	Vanadium	52.1		1	0.29	1.07	2.14	mg/Kg	12/17/24 14:00	12/18/24 16:40	SW6010	SW3050
7440-66-6	Zinc	19.6		1	0.12	0.54	2.14	mg/Kg	12/17/24 14:00	12/18/24 16:40	SW6010	SW3050

Color Before:	Black	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

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.
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N =Spiked sample recovery not within control limits

Alliance TECHNICAL GROUP
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Report of Analysis

Client:	Nobis Group	Date Collected:	12/12/24
Project:	Raymark Superfund Site	Date Received:	12/17/24
Client Sample ID:	OU4-VSL-09-121224	SDG No.:	P5306
Lab Sample ID:	P5306-05	Matrix:	SOIL
Level (low/med):	low	% Solid:	90.1

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	5360		1	2.28	3.78	4.72	mg/Kg	12/17/24 14:00	12/18/24 16:44	SW6010	SW3050
7440-36-0	Antimony	0.59	U	1	0.14	0.59	2.36	mg/Kg	12/17/24 14:00	12/18/24 16:44	SW6010	SW3050
7440-38-2	Arsenic	0.82	J	1	0.27	0.76	0.95	mg/Kg	12/17/24 14:00	12/18/24 16:44	SW6010	SW3050
7440-39-3	Barium	10.9		1	0.61	1.18	4.72	mg/Kg	12/17/24 14:00	12/18/24 16:44	SW6010	SW3050
7440-41-7	Beryllium	0.35	N	1	0.011	0.071	0.28	mg/Kg	12/17/24 14:00	12/18/24 16:44	SW6010	SW3050
7440-43-9	Cadmium	2.01		1	0.015	0.071	0.28	mg/Kg	12/17/24 14:00	12/18/24 16:44	SW6010	SW3050
7440-70-2	Calcium	5030		1	2.64	23.6	94.5	mg/Kg	12/17/24 14:00	12/18/24 16:44	SW6010	SW3050
7440-47-3	Chromium	0.46	JN	1	0.051	0.12	0.47	mg/Kg	12/17/24 14:00	12/18/24 16:44	SW6010	SW3050
7440-48-4	Cobalt	15.6	N	1	0.055	0.35	1.42	mg/Kg	12/17/24 14:00	12/18/24 16:44	SW6010	SW3050
7440-50-8	Copper	35.5		1	0.44	0.76	0.95	mg/Kg	12/17/24 14:00	12/18/24 16:44	SW6010	SW3050
7439-89-6	Iron	25300		1	2.54	3.78	4.72	mg/Kg	12/17/24 14:00	12/18/24 16:44	SW6010	SW3050
7439-92-1	Lead	2.42		1	0.14	0.45	0.57	mg/Kg	12/17/24 14:00	12/18/24 16:44	SW6010	SW3050
7439-95-4	Magnesium	3930		1	3.24	23.6	94.5	mg/Kg	12/17/24 14:00	12/18/24 16:44	SW6010	SW3050
7439-96-5	Manganese	222		1	0.067	0.24	0.95	mg/Kg	12/17/24 14:00	12/18/24 16:44	SW6010	SW3050
7439-97-6	Mercury	0.011	UN	1	0.0060	0.011	0.014	mg/Kg	12/18/24 08:35	12/18/24 14:36	SW7471B	
7440-02-0	Nickel	5.35		1	0.085	0.47	1.89	mg/Kg	12/17/24 14:00	12/18/24 16:44	SW6010	SW3050
7440-09-7	Potassium	64.7	J	1	27.1	75.6	94.5	mg/Kg	12/17/24 14:00	12/18/24 16:44	SW6010	SW3050
7782-49-2	Selenium	0.76	U	1	0.31	0.76	0.95	mg/Kg	12/17/24 14:00	12/18/24 16:44	SW6010	SW3050
7440-22-4	Silver	0.24	U	1	0.049	0.24	0.47	mg/Kg	12/17/24 14:00	12/18/24 16:44	SW6010	SW3050
7440-23-5	Sodium	718		1	34.1	75.6	94.5	mg/Kg	12/17/24 14:00	12/18/24 16:44	SW6010	SW3050
7440-28-0	Thallium	0.95	U	1	0.42	0.95	1.89	mg/Kg	12/17/24 14:00	12/18/24 16:44	SW6010	SW3050
7440-62-2	Vanadium	75.6		1	0.26	0.95	1.89	mg/Kg	12/17/24 14:00	12/18/24 16:44	SW6010	SW3050
7440-66-6	Zinc	40.5		1	0.10	0.47	1.89	mg/Kg	12/17/24 14:00	12/18/24 16:44	SW6010	SW3050

Color Before:	Black	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

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

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

Report of Analysis

Client:	Nobis Group	Date Collected:	12/12/24
Project:	Raymark Superfund Site	Date Received:	12/17/24
Client Sample ID:	OU4-VSL-10-121224	SDG No.:	P5306
Lab Sample ID:	P5306-07	Matrix:	SOIL
Level (low/med):	low	% Solid:	95

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	5240		1	2.30	3.81	4.76	mg/Kg	12/17/24 14:00	12/18/24 16:49	SW6010	SW3050
7440-36-0	Antimony	0.20	J	1	0.14	0.60	2.38	mg/Kg	12/17/24 14:00	12/18/24 16:49	SW6010	SW3050
7440-38-2	Arsenic	0.76	U	1	0.28	0.76	0.95	mg/Kg	12/17/24 14:00	12/18/24 16:49	SW6010	SW3050
7440-39-3	Barium	14.9		1	0.61	1.19	4.76	mg/Kg	12/17/24 14:00	12/18/24 16:49	SW6010	SW3050
7440-41-7	Beryllium	0.37	N	1	0.011	0.071	0.29	mg/Kg	12/17/24 14:00	12/18/24 16:49	SW6010	SW3050
7440-43-9	Cadmium	2.30		1	0.015	0.071	0.29	mg/Kg	12/17/24 14:00	12/18/24 16:49	SW6010	SW3050
7440-70-2	Calcium	5210		1	2.67	23.8	95.3	mg/Kg	12/17/24 14:00	12/18/24 16:49	SW6010	SW3050
7440-47-3	Chromium	0.30	JN	1	0.051	0.12	0.48	mg/Kg	12/17/24 14:00	12/18/24 16:49	SW6010	SW3050
7440-48-4	Cobalt	16.9	N	1	0.055	0.36	1.43	mg/Kg	12/17/24 14:00	12/18/24 16:49	SW6010	SW3050
7440-50-8	Copper	39.3		1	0.45	0.76	0.95	mg/Kg	12/17/24 14:00	12/18/24 16:49	SW6010	SW3050
7439-89-6	Iron	26400		1	2.56	3.81	4.76	mg/Kg	12/17/24 14:00	12/18/24 16:49	SW6010	SW3050
7439-92-1	Lead	2.22		1	0.14	0.46	0.57	mg/Kg	12/17/24 14:00	12/18/24 16:49	SW6010	SW3050
7439-95-4	Magnesium	3780		1	3.27	23.8	95.3	mg/Kg	12/17/24 14:00	12/18/24 16:49	SW6010	SW3050
7439-96-5	Manganese	239		1	0.068	0.24	0.95	mg/Kg	12/17/24 14:00	12/18/24 16:49	SW6010	SW3050
7439-97-6	Mercury	0.011	UN	1	0.0060	0.011	0.014	mg/Kg	12/18/24 08:35	12/18/24 14:38	SW7471B	
7440-02-0	Nickel	4.87		1	0.086	0.48	1.91	mg/Kg	12/17/24 14:00	12/18/24 16:49	SW6010	SW3050
7440-09-7	Potassium	64.5	J	1	27.3	76.2	95.3	mg/Kg	12/17/24 14:00	12/18/24 16:49	SW6010	SW3050
7782-49-2	Selenium	0.76	U	1	0.31	0.76	0.95	mg/Kg	12/17/24 14:00	12/18/24 16:49	SW6010	SW3050
7440-22-4	Silver	0.24	U	1	0.050	0.24	0.48	mg/Kg	12/17/24 14:00	12/18/24 16:49	SW6010	SW3050
7440-23-5	Sodium	742		1	34.4	76.2	95.3	mg/Kg	12/17/24 14:00	12/18/24 16:49	SW6010	SW3050
7440-28-0	Thallium	0.95	U	1	0.42	0.95	1.91	mg/Kg	12/17/24 14:00	12/18/24 16:49	SW6010	SW3050
7440-62-2	Vanadium	76.9		1	0.26	0.95	1.91	mg/Kg	12/17/24 14:00	12/18/24 16:49	SW6010	SW3050
7440-66-6	Zinc	35.4		1	0.11	0.48	1.91	mg/Kg	12/17/24 14:00	12/18/24 16:49	SW6010	SW3050

Color Before:	Black	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

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
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E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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

Report of Analysis

Client:	Nobis Group	Date Collected:	12/12/24
Project:	Raymark Superfund Site	Date Received:	12/17/24
Client Sample ID:	OU4-VSL-11-121224	SDG No.:	P5306
Lab Sample ID:	P5306-09	Matrix:	SOIL
Level (low/med):	low	% Solid:	93.6

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	4830		1	2.46	4.09	5.11	mg/Kg	12/17/24 14:00	12/18/24 16:53	SW6010	SW3050
7440-36-0	Antimony	0.64	U	1	0.15	0.64	2.56	mg/Kg	12/17/24 14:00	12/18/24 16:53	SW6010	SW3050
7440-38-2	Arsenic	0.82	U	1	0.30	0.82	1.02	mg/Kg	12/17/24 14:00	12/18/24 16:53	SW6010	SW3050
7440-39-3	Barium	11.6		1	0.65	1.28	5.11	mg/Kg	12/17/24 14:00	12/18/24 16:53	SW6010	SW3050
7440-41-7	Beryllium	0.35	N	1	0.012	0.077	0.31	mg/Kg	12/17/24 14:00	12/18/24 16:53	SW6010	SW3050
7440-43-9	Cadmium	1.79		1	0.016	0.077	0.31	mg/Kg	12/17/24 14:00	12/18/24 16:53	SW6010	SW3050
7440-70-2	Calcium	4540		1	2.86	25.6	102	mg/Kg	12/17/24 14:00	12/18/24 16:53	SW6010	SW3050
7440-47-3	Chromium	0.31	JN	1	0.055	0.13	0.51	mg/Kg	12/17/24 14:00	12/18/24 16:53	SW6010	SW3050
7440-48-4	Cobalt	15.8	N	1	0.059	0.38	1.53	mg/Kg	12/17/24 14:00	12/18/24 16:53	SW6010	SW3050
7440-50-8	Copper	38.6		1	0.48	0.82	1.02	mg/Kg	12/17/24 14:00	12/18/24 16:53	SW6010	SW3050
7439-89-6	Iron	24300		1	2.75	4.09	5.11	mg/Kg	12/17/24 14:00	12/18/24 16:53	SW6010	SW3050
7439-92-1	Lead	2.43		1	0.15	0.49	0.61	mg/Kg	12/17/24 14:00	12/18/24 16:53	SW6010	SW3050
7439-95-4	Magnesium	3730		1	3.51	25.6	102	mg/Kg	12/17/24 14:00	12/18/24 16:53	SW6010	SW3050
7439-96-5	Manganese	222		1	0.073	0.26	1.02	mg/Kg	12/17/24 14:00	12/18/24 16:53	SW6010	SW3050
7439-97-6	Mercury	0.011	UN	1	0.0060	0.011	0.014	mg/Kg	12/18/24 08:35	12/18/24 14:41	SW7471B	
7440-02-0	Nickel	4.66		1	0.092	0.51	2.04	mg/Kg	12/17/24 14:00	12/18/24 16:53	SW6010	SW3050
7440-09-7	Potassium	58.6	J	1	29.3	81.8	102	mg/Kg	12/17/24 14:00	12/18/24 16:53	SW6010	SW3050
7782-49-2	Selenium	0.82	U	1	0.34	0.82	1.02	mg/Kg	12/17/24 14:00	12/18/24 16:53	SW6010	SW3050
7440-22-4	Silver	0.26	U	1	0.053	0.26	0.51	mg/Kg	12/17/24 14:00	12/18/24 16:53	SW6010	SW3050
7440-23-5	Sodium	615		1	36.9	81.8	102	mg/Kg	12/17/24 14:00	12/18/24 16:53	SW6010	SW3050
7440-28-0	Thallium	1.02	U	1	0.45	1.02	2.04	mg/Kg	12/17/24 14:00	12/18/24 16:53	SW6010	SW3050
7440-62-2	Vanadium	67.4		1	0.28	1.02	2.04	mg/Kg	12/17/24 14:00	12/18/24 16:53	SW6010	SW3050
7440-66-6	Zinc	33.0		1	0.11	0.51	2.04	mg/Kg	12/17/24 14:00	12/18/24 16:53	SW6010	SW3050

Color Before:	Black	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

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

J = Estimated Value
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E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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

Report of Analysis

Client:	Nobis Group	Date Collected:	12/12/24
Project:	Raymark Superfund Site	Date Received:	12/17/24
Client Sample ID:	OU4-VSL-12-121224	SDG No.:	P5306
Lab Sample ID:	P5306-11	Matrix:	SOIL
Level (low/med):	low	% Solid:	90.8

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	5780		1	2.18	3.61	4.51	mg/Kg	12/17/24 14:00	12/18/24 16:57	SW6010	SW3050
7440-36-0	Antimony	0.56	U	1	0.14	0.56	2.26	mg/Kg	12/17/24 14:00	12/18/24 16:57	SW6010	SW3050
7440-38-2	Arsenic	0.29	J	1	0.26	0.72	0.90	mg/Kg	12/17/24 14:00	12/18/24 16:57	SW6010	SW3050
7440-39-3	Barium	3.11	J	1	0.58	1.13	4.51	mg/Kg	12/17/24 14:00	12/18/24 16:57	SW6010	SW3050
7440-41-7	Beryllium	0.21	JN	1	0.011	0.068	0.27	mg/Kg	12/17/24 14:00	12/18/24 16:57	SW6010	SW3050
7440-43-9	Cadmium	0.82		1	0.014	0.068	0.27	mg/Kg	12/17/24 14:00	12/18/24 16:57	SW6010	SW3050
7440-70-2	Calcium	4280		1	2.53	22.6	90.3	mg/Kg	12/17/24 14:00	12/18/24 16:57	SW6010	SW3050
7440-47-3	Chromium	1.91	N	1	0.049	0.11	0.45	mg/Kg	12/17/24 14:00	12/18/24 16:57	SW6010	SW3050
7440-48-4	Cobalt	11.4	N	1	0.052	0.34	1.35	mg/Kg	12/17/24 14:00	12/18/24 16:57	SW6010	SW3050
7440-50-8	Copper	36.6		1	0.42	0.72	0.90	mg/Kg	12/17/24 14:00	12/18/24 16:57	SW6010	SW3050
7439-89-6	Iron	16100		1	2.43	3.61	4.51	mg/Kg	12/17/24 14:00	12/18/24 16:57	SW6010	SW3050
7439-92-1	Lead	1.34		1	0.14	0.43	0.54	mg/Kg	12/17/24 14:00	12/18/24 16:57	SW6010	SW3050
7439-95-4	Magnesium	4170		1	3.10	22.6	90.3	mg/Kg	12/17/24 14:00	12/18/24 16:57	SW6010	SW3050
7439-96-5	Manganese	91.9		1	0.064	0.23	0.90	mg/Kg	12/17/24 14:00	12/18/24 16:57	SW6010	SW3050
7439-97-6	Mercury	0.011	UN	1	0.0060	0.011	0.014	mg/Kg	12/18/24 08:35	12/18/24 14:43	SW7471B	
7440-02-0	Nickel	10.3		1	0.081	0.45	1.81	mg/Kg	12/17/24 14:00	12/18/24 16:57	SW6010	SW3050
7440-09-7	Potassium	87.6	J	1	25.9	72.2	90.3	mg/Kg	12/17/24 14:00	12/18/24 16:57	SW6010	SW3050
7782-49-2	Selenium	0.72	U	1	0.30	0.72	0.90	mg/Kg	12/17/24 14:00	12/18/24 16:57	SW6010	SW3050
7440-22-4	Silver	0.23	U	1	0.047	0.23	0.45	mg/Kg	12/17/24 14:00	12/18/24 16:57	SW6010	SW3050
7440-23-5	Sodium	1520		1	32.6	72.2	90.3	mg/Kg	12/17/24 14:00	12/18/24 16:57	SW6010	SW3050
7440-28-0	Thallium	0.90	U	1	0.40	0.90	1.81	mg/Kg	12/17/24 14:00	12/18/24 16:57	SW6010	SW3050
7440-62-2	Vanadium	55.4		1	0.24	0.90	1.81	mg/Kg	12/17/24 14:00	12/18/24 16:57	SW6010	SW3050
7440-66-6	Zinc	18.3		1	0.099	0.45	1.81	mg/Kg	12/17/24 14:00	12/18/24 16:57	SW6010	SW3050

Color Before:	Black	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

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
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E = Indicates the reported value is estimated because of the presence of interference.
OR = Over Range
N =Spiked sample recovery not within control limits

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

Report of Analysis

Client:	Nobis Group	Date Collected:	12/12/24
Project:	Raymark Superfund Site	Date Received:	12/17/24
Client Sample ID:	OU4-VSL-13-121224	SDG No.:	P5306
Lab Sample ID:	P5306-13	Matrix:	SOIL
Level (low/med):	low	% Solid:	90

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	4540		1	2.26	3.75	4.69	mg/Kg	12/17/24 14:00	12/18/24 17:10	SW6010	SW3050
7440-36-0	Antimony	0.59	U	1	0.14	0.59	2.34	mg/Kg	12/17/24 14:00	12/18/24 17:10	SW6010	SW3050
7440-38-2	Arsenic	0.75	U	1	0.27	0.75	0.94	mg/Kg	12/17/24 14:00	12/18/24 17:10	SW6010	SW3050
7440-39-3	Barium	2.50	J	1	0.60	1.17	4.69	mg/Kg	12/17/24 14:00	12/18/24 17:10	SW6010	SW3050
7440-41-7	Beryllium	0.18	JN	1	0.011	0.070	0.28	mg/Kg	12/17/24 14:00	12/18/24 17:10	SW6010	SW3050
7440-43-9	Cadmium	0.54		1	0.015	0.070	0.28	mg/Kg	12/17/24 14:00	12/18/24 17:10	SW6010	SW3050
7440-70-2	Calcium	3320		1	2.63	23.4	93.8	mg/Kg	12/17/24 14:00	12/18/24 17:10	SW6010	SW3050
7440-47-3	Chromium	1.73	N	1	0.051	0.12	0.47	mg/Kg	12/17/24 14:00	12/18/24 17:10	SW6010	SW3050
7440-48-4	Cobalt	9.10	N	1	0.054	0.35	1.41	mg/Kg	12/17/24 14:00	12/18/24 17:10	SW6010	SW3050
7440-50-8	Copper	30.6		1	0.44	0.75	0.94	mg/Kg	12/17/24 14:00	12/18/24 17:10	SW6010	SW3050
7439-89-6	Iron	12900		1	2.52	3.75	4.69	mg/Kg	12/17/24 14:00	12/18/24 17:10	SW6010	SW3050
7439-92-1	Lead	0.97		1	0.14	0.45	0.56	mg/Kg	12/17/24 14:00	12/18/24 17:10	SW6010	SW3050
7439-95-4	Magnesium	3490		1	3.22	23.4	93.8	mg/Kg	12/17/24 14:00	12/18/24 17:10	SW6010	SW3050
7439-96-5	Manganese	85.0		1	0.067	0.23	0.94	mg/Kg	12/17/24 14:00	12/18/24 17:10	SW6010	SW3050
7439-97-6	Mercury	0.0080	JN	1	0.0060	0.011	0.013	mg/Kg	12/18/24 08:35	12/18/24 14:50	SW7471B	
7440-02-0	Nickel	8.22		1	0.084	0.47	1.88	mg/Kg	12/17/24 14:00	12/18/24 17:10	SW6010	SW3050
7440-09-7	Potassium	69.4	J	1	26.9	75.0	93.8	mg/Kg	12/17/24 14:00	12/18/24 17:10	SW6010	SW3050
7782-49-2	Selenium	0.75	U	1	0.31	0.75	0.94	mg/Kg	12/17/24 14:00	12/18/24 17:10	SW6010	SW3050
7440-22-4	Silver	0.23	U	1	0.049	0.23	0.47	mg/Kg	12/17/24 14:00	12/18/24 17:10	SW6010	SW3050
7440-23-5	Sodium	1190		1	33.8	75.0	93.8	mg/Kg	12/17/24 14:00	12/18/24 17:10	SW6010	SW3050
7440-28-0	Thallium	0.94	U	1	0.41	0.94	1.88	mg/Kg	12/17/24 14:00	12/18/24 17:10	SW6010	SW3050
7440-62-2	Vanadium	47.5		1	0.25	0.94	1.88	mg/Kg	12/17/24 14:00	12/18/24 17:10	SW6010	SW3050
7440-66-6	Zinc	15.4		1	0.10	0.47	1.88	mg/Kg	12/17/24 14:00	12/18/24 17:10	SW6010	SW3050

Color Before:	Black	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

U = Not Detected
LOQ = Limit of Quantitation
MDL = Method Detection Limit
LOD = Limit of Detection
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J = Estimated Value
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OR = Over Range
N =Spiked sample recovery not within control limits

Alliance TECHNICAL GROUP
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Fax : 908 789 8922

Report of Analysis

Client:	Nobis Group	Date Collected:	12/12/24
Project:	Raymark Superfund Site	Date Received:	12/17/24
Client Sample ID:	OU4-VSL-14-121224	SDG No.:	P5306
Lab Sample ID:	P5306-15	Matrix:	SOIL
Level (low/med):	low	% Solid:	95.9

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	4950		1	2.44	4.05	5.06	mg/Kg	12/17/24 14:00	12/18/24 17:14	SW6010	SW3050
7440-36-0	Antimony	0.63	U	1	0.15	0.63	2.53	mg/Kg	12/17/24 14:00	12/18/24 17:14	SW6010	SW3050
7440-38-2	Arsenic	0.81	U	1	0.29	0.81	1.01	mg/Kg	12/17/24 14:00	12/18/24 17:14	SW6010	SW3050
7440-39-3	Barium	2.81	J	1	0.65	1.27	5.06	mg/Kg	12/17/24 14:00	12/18/24 17:14	SW6010	SW3050
7440-41-7	Beryllium	0.20	JN	1	0.012	0.076	0.30	mg/Kg	12/17/24 14:00	12/18/24 17:14	SW6010	SW3050
7440-43-9	Cadmium	0.56		1	0.016	0.076	0.30	mg/Kg	12/17/24 14:00	12/18/24 17:14	SW6010	SW3050
7440-70-2	Calcium	3660		1	2.83	25.3	101	mg/Kg	12/17/24 14:00	12/18/24 17:14	SW6010	SW3050
7440-47-3	Chromium	1.91	N	1	0.055	0.13	0.51	mg/Kg	12/17/24 14:00	12/18/24 17:14	SW6010	SW3050
7440-48-4	Cobalt	10.1	N	1	0.059	0.38	1.52	mg/Kg	12/17/24 14:00	12/18/24 17:14	SW6010	SW3050
7440-50-8	Copper	33.2		1	0.48	0.81	1.01	mg/Kg	12/17/24 14:00	12/18/24 17:14	SW6010	SW3050
7439-89-6	Iron	14400		1	2.72	4.05	5.06	mg/Kg	12/17/24 14:00	12/18/24 17:14	SW6010	SW3050
7439-92-1	Lead	1.07		1	0.15	0.49	0.61	mg/Kg	12/17/24 14:00	12/18/24 17:14	SW6010	SW3050
7439-95-4	Magnesium	3830		1	3.47	25.3	101	mg/Kg	12/17/24 14:00	12/18/24 17:14	SW6010	SW3050
7439-96-5	Manganese	92.5		1	0.072	0.25	1.01	mg/Kg	12/17/24 14:00	12/18/24 17:14	SW6010	SW3050
7439-97-6	Mercury	0.010	UN	1	0.0050	0.010	0.012	mg/Kg	12/18/24 08:35	12/18/24 14:52	SW7471B	
7440-02-0	Nickel	9.16		1	0.091	0.51	2.02	mg/Kg	12/17/24 14:00	12/18/24 17:14	SW6010	SW3050
7440-09-7	Potassium	74.9	J	1	29.1	81.0	101	mg/Kg	12/17/24 14:00	12/18/24 17:14	SW6010	SW3050
7782-49-2	Selenium	0.81	U	1	0.33	0.81	1.01	mg/Kg	12/17/24 14:00	12/18/24 17:14	SW6010	SW3050
7440-22-4	Silver	0.25	U	1	0.053	0.25	0.51	mg/Kg	12/17/24 14:00	12/18/24 17:14	SW6010	SW3050
7440-23-5	Sodium	1340		1	36.5	81.0	101	mg/Kg	12/17/24 14:00	12/18/24 17:14	SW6010	SW3050
7440-28-0	Thallium	1.01	U	1	0.45	1.01	2.02	mg/Kg	12/17/24 14:00	12/18/24 17:14	SW6010	SW3050
7440-62-2	Vanadium	52.1		1	0.27	1.01	2.02	mg/Kg	12/17/24 14:00	12/18/24 17:14	SW6010	SW3050
7440-66-6	Zinc	16.9		1	0.11	0.51	2.02	mg/Kg	12/17/24 14:00	12/18/24 17:14	SW6010	SW3050

Color Before:	Black	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	METALS-TAL				

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:	Nobis Group	Date Collected:	12/12/24
Project:	Raymark Superfund Site	Date Received:	12/17/24
Client Sample ID:	OU4-VSL-06R-121224	SDG No.:	P5306
Lab Sample ID:	P5306-17	Matrix:	SOIL
Level (low/med):	low	% Solid:	91.7

Cas	Parameter	Conc.	Qua.	DF	MDL	LOD	LOQ / CRQL	Units(Dry Weight)	Prep Date	Date Ana.	Ana Met.	Prep Met.
7440-62-2	Vanadium	74.6		1	0.24	0.91	1.81	mg/Kg	12/17/24 14:00	12/23/24 14:41	SW6010	SW3050

Color Before:	Black	Clarity Before:		Texture:	Medium
Color After:	Yellow	Clarity After:		Artifacts:	
Comments:	Metals Group6				

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

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

METAL CALIBRATION DATA

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

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
ICV24	Mercury	4.05	4.0	101	90 - 110	CV	12/18/2024	13:36	LB133991

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

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
CCV42	Mercury	4.53	5.0	91	90 - 110	CV	12/18/2024	13:41	LB133991
CCV43	Mercury	4.72	5.0	94	90 - 110	CV	12/18/2024	14:08	LB133991
CCV44	Mercury	4.51	5.0	90	90 - 110	CV	12/18/2024	14:45	LB133991
CCV45	Mercury	4.83	5.0	97	90 - 110	CV	12/18/2024	15:07	LB133991

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

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	Aluminum	2460	2500	98	90 - 110	P	12/18/2024	14:40	LB134001
	Antimony	993	1000	99	90 - 110	P	12/18/2024	14:40	LB134001
	Arsenic	997	1000	100	90 - 110	P	12/18/2024	14:40	LB134001
	Barium	501	520	96	90 - 110	P	12/18/2024	14:40	LB134001
	Beryllium	497	510	97	90 - 110	P	12/18/2024	14:40	LB134001
	Cadmium	500	510	98	90 - 110	P	12/18/2024	14:40	LB134001
	Calcium	9800	10000	98	90 - 110	P	12/18/2024	14:40	LB134001
	Chromium	537	520	103	90 - 110	P	12/18/2024	14:40	LB134001
	Cobalt	507	520	97	90 - 110	P	12/18/2024	14:40	LB134001
	Copper	515	510	101	90 - 110	P	12/18/2024	14:40	LB134001
	Iron	10200	10000	102	90 - 110	P	12/18/2024	14:40	LB134001
	Lead	1000	1000	100	90 - 110	P	12/18/2024	14:40	LB134001
	Magnesium	5790	6000	96	90 - 110	P	12/18/2024	14:40	LB134001
	Manganese	503	520	97	90 - 110	P	12/18/2024	14:40	LB134001
	Nickel	509	530	96	90 - 110	P	12/18/2024	14:40	LB134001
	Potassium	9870	9900	100	90 - 110	P	12/18/2024	14:40	LB134001
	Selenium	1000	1000	100	90 - 110	P	12/18/2024	14:40	LB134001
	Silver	251	250	100	90 - 110	P	12/18/2024	14:40	LB134001
	Sodium	9810	10000	98	90 - 110	P	12/18/2024	14:40	LB134001
	Thallium	1020	1000	102	90 - 110	P	12/18/2024	14:40	LB134001
	Vanadium	494	500	99	90 - 110	P	12/18/2024	14:40	LB134001
	Zinc	1020	1000	102	90 - 110	P	12/18/2024	14:40	LB134001

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

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	Aluminum	99.7	100	100	80 - 120	P	12/18/2024	14:58	LB134001
	Antimony	47.3	50.0	94	80 - 120	P	12/18/2024	14:58	LB134001
	Arsenic	20.0	20.0	100	80 - 120	P	12/18/2024	14:58	LB134001
	Barium	94.6	100	95	80 - 120	P	12/18/2024	14:58	LB134001
	Beryllium	5.68	6.0	95	80 - 120	P	12/18/2024	14:58	LB134001
	Cadmium	5.70	6.0	95	80 - 120	P	12/18/2024	14:58	LB134001
	Calcium	1920	2000	96	80 - 120	P	12/18/2024	14:58	LB134001
	Chromium	9.71	10.0	97	80 - 120	P	12/18/2024	14:58	LB134001
	Cobalt	28.3	30.0	94	80 - 120	P	12/18/2024	14:58	LB134001
	Copper	21.5	20.0	108	80 - 120	P	12/18/2024	14:58	LB134001
	Iron	95.9	100	96	80 - 120	P	12/18/2024	14:58	LB134001
	Lead	11.3	12.0	94	80 - 120	P	12/18/2024	14:58	LB134001
	Magnesium	2020	2000	101	80 - 120	P	12/18/2024	14:58	LB134001
	Manganese	19.4	20.0	97	80 - 120	P	12/18/2024	14:58	LB134001
	Nickel	37.5	40.0	94	80 - 120	P	12/18/2024	14:58	LB134001
	Potassium	1900	2000	95	80 - 120	P	12/18/2024	14:58	LB134001
	Selenium	18.8	20.0	94	80 - 120	P	12/18/2024	14:58	LB134001
	Silver	9.93	10.0	99	80 - 120	P	12/18/2024	14:58	LB134001
	Sodium	1900	2000	95	80 - 120	P	12/18/2024	14:58	LB134001
	Thallium	39.9	40.0	100	80 - 120	P	12/18/2024	14:58	LB134001
	Vanadium	36.4	40.0	91	80 - 120	P	12/18/2024	14:58	LB134001
	Zinc	45.4	40.0	114	80 - 120	P	12/18/2024	14:58	LB134001

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

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	Aluminum	9860	10000	99	90 - 110	P	12/18/2024	15:27	LB134001
	Antimony	4870	5000	97	90 - 110	P	12/18/2024	15:27	LB134001
	Arsenic	4820	5000	96	90 - 110	P	12/18/2024	15:27	LB134001
	Barium	9880	10000	99	90 - 110	P	12/18/2024	15:27	LB134001
	Beryllium	249	250	100	90 - 110	P	12/18/2024	15:27	LB134001
	Cadmium	2420	2500	97	90 - 110	P	12/18/2024	15:27	LB134001
	Calcium	24800	25000	99	90 - 110	P	12/18/2024	15:27	LB134001
	Chromium	1000	1000	100	90 - 110	P	12/18/2024	15:27	LB134001
	Cobalt	2420	2500	97	90 - 110	P	12/18/2024	15:27	LB134001
	Copper	1230	1250	98	90 - 110	P	12/18/2024	15:27	LB134001
	Iron	4970	5000	99	90 - 110	P	12/18/2024	15:27	LB134001
	Lead	4840	5000	97	90 - 110	P	12/18/2024	15:27	LB134001
	Magnesium	24800	25000	99	90 - 110	P	12/18/2024	15:27	LB134001
	Manganese	2480	2500	99	90 - 110	P	12/18/2024	15:27	LB134001
	Nickel	2420	2500	97	90 - 110	P	12/18/2024	15:27	LB134001
	Potassium	24500	25000	98	90 - 110	P	12/18/2024	15:27	LB134001
	Selenium	4860	5000	97	90 - 110	P	12/18/2024	15:27	LB134001
	Silver	1240	1250	99	90 - 110	P	12/18/2024	15:27	LB134001
	Sodium	24600	25000	99	90 - 110	P	12/18/2024	15:27	LB134001
	Thallium	4790	5000	96	90 - 110	P	12/18/2024	15:27	LB134001
	Vanadium	2480	2500	99	90 - 110	P	12/18/2024	15:27	LB134001
	Zinc	2490	2500	100	90 - 110	P	12/18/2024	15:27	LB134001
CCV02	Aluminum	9580	10000	96	90 - 110	P	12/18/2024	16:10	LB134001
	Antimony	4780	5000	96	90 - 110	P	12/18/2024	16:10	LB134001
	Arsenic	4720	5000	94	90 - 110	P	12/18/2024	16:10	LB134001
	Barium	9790	10000	98	90 - 110	P	12/18/2024	16:10	LB134001
	Beryllium	236	250	94	90 - 110	P	12/18/2024	16:10	LB134001
	Cadmium	2350	2500	94	90 - 110	P	12/18/2024	16:10	LB134001
	Calcium	24000	25000	96	90 - 110	P	12/18/2024	16:10	LB134001
	Chromium	963	1000	96	90 - 110	P	12/18/2024	16:10	LB134001
	Cobalt	2350	2500	94	90 - 110	P	12/18/2024	16:10	LB134001
	Copper	1210	1250	96	90 - 110	P	12/18/2024	16:10	LB134001
	Iron	4910	5000	98	90 - 110	P	12/18/2024	16:10	LB134001
	Lead	4690	5000	94	90 - 110	P	12/18/2024	16:10	LB134001

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

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
CCV02	Magnesium	23800	25000	95	90 - 110	P	12/18/2024	16:10	LB134001
	Manganese	2390	2500	96	90 - 110	P	12/18/2024	16:10	LB134001
	Nickel	2360	2500	94	90 - 110	P	12/18/2024	16:10	LB134001
	Potassium	24400	25000	98	90 - 110	P	12/18/2024	16:10	LB134001
	Selenium	4780	5000	96	90 - 110	P	12/18/2024	16:10	LB134001
	Silver	1200	1250	96	90 - 110	P	12/18/2024	16:10	LB134001
	Sodium	24600	25000	98	90 - 110	P	12/18/2024	16:10	LB134001
	Thallium	4700	5000	94	90 - 110	P	12/18/2024	16:10	LB134001
	Vanadium	2410	2500	97	90 - 110	P	12/18/2024	16:10	LB134001
	Zinc	2430	2500	97	90 - 110	P	12/18/2024	16:10	LB134001
CCV03	Aluminum	9700	10000	97	90 - 110	P	12/18/2024	17:01	LB134001
	Antimony	4920	5000	98	90 - 110	P	12/18/2024	17:01	LB134001
	Arsenic	4840	5000	97	90 - 110	P	12/18/2024	17:01	LB134001
	Barium	9900	10000	99	90 - 110	P	12/18/2024	17:01	LB134001
	Beryllium	236	250	94	90 - 110	P	12/18/2024	17:01	LB134001
	Cadmium	2390	2500	96	90 - 110	P	12/18/2024	17:01	LB134001
	Calcium	23800	25000	95	90 - 110	P	12/18/2024	17:01	LB134001
	Chromium	975	1000	98	90 - 110	P	12/18/2024	17:01	LB134001
	Cobalt	2390	2500	96	90 - 110	P	12/18/2024	17:01	LB134001
	Copper	1230	1250	99	90 - 110	P	12/18/2024	17:01	LB134001
	Iron	5000	5000	100	90 - 110	P	12/18/2024	17:01	LB134001
	Lead	4760	5000	95	90 - 110	P	12/18/2024	17:01	LB134001
	Magnesium	23600	25000	94	90 - 110	P	12/18/2024	17:01	LB134001
	Manganese	2410	2500	96	90 - 110	P	12/18/2024	17:01	LB134001
	Nickel	2400	2500	96	90 - 110	P	12/18/2024	17:01	LB134001
	Potassium	24900	25000	100	90 - 110	P	12/18/2024	17:01	LB134001
	Selenium	4900	5000	98	90 - 110	P	12/18/2024	17:01	LB134001
	Silver	1220	1250	98	90 - 110	P	12/18/2024	17:01	LB134001
	Sodium	25100	25000	100	90 - 110	P	12/18/2024	17:01	LB134001
	Thallium	4840	5000	97	90 - 110	P	12/18/2024	17:01	LB134001
	Vanadium	2430	2500	97	90 - 110	P	12/18/2024	17:01	LB134001
	Zinc	2460	2500	98	90 - 110	P	12/18/2024	17:01	LB134001
CCV04	Aluminum	9610	10000	96	90 - 110	P	12/18/2024	17:43	LB134001
	Antimony	4880	5000	98	90 - 110	P	12/18/2024	17:43	LB134001

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

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	Arsenic	4810	5000	96	90 - 110	P	12/18/2024	17:43	LB134001
	Barium	9850	10000	98	90 - 110	P	12/18/2024	17:43	LB134001
	Beryllium	235	250	94	90 - 110	P	12/18/2024	17:43	LB134001
	Cadmium	2350	2500	94	90 - 110	P	12/18/2024	17:43	LB134001
	Calcium	23600	25000	94	90 - 110	P	12/18/2024	17:43	LB134001
	Chromium	966	1000	97	90 - 110	P	12/18/2024	17:43	LB134001
	Cobalt	2360	2500	94	90 - 110	P	12/18/2024	17:43	LB134001
	Copper	1230	1250	99	90 - 110	P	12/18/2024	17:43	LB134001
	Iron	4950	5000	99	90 - 110	P	12/18/2024	17:43	LB134001
	Lead	4700	5000	94	90 - 110	P	12/18/2024	17:43	LB134001
	Magnesium	23500	25000	94	90 - 110	P	12/18/2024	17:43	LB134001
	Manganese	2400	2500	96	90 - 110	P	12/18/2024	17:43	LB134001
	Nickel	2360	2500	95	90 - 110	P	12/18/2024	17:43	LB134001
	Potassium	24700	25000	99	90 - 110	P	12/18/2024	17:43	LB134001
	Selenium	4890	5000	98	90 - 110	P	12/18/2024	17:43	LB134001
	Silver	1210	1250	97	90 - 110	P	12/18/2024	17:43	LB134001
	Sodium	24900	25000	100	90 - 110	P	12/18/2024	17:43	LB134001
	Thallium	4770	5000	95	90 - 110	P	12/18/2024	17:43	LB134001
	Vanadium	2410	2500	96	90 - 110	P	12/18/2024	17:43	LB134001
	Zinc	2460	2500	98	90 - 110	P	12/18/2024	17:43	LB134001
CCV05	Aluminum	9620	10000	96	90 - 110	P	12/18/2024	18:33	LB134001
	Antimony	4660	5000	93	90 - 110	P	12/18/2024	18:33	LB134001
	Arsenic	4660	5000	93	90 - 110	P	12/18/2024	18:33	LB134001
	Barium	9390	10000	94	90 - 110	P	12/18/2024	18:33	LB134001
	Beryllium	256	250	102	90 - 110	P	12/18/2024	18:33	LB134001
	Cadmium	2440	2500	98	90 - 110	P	12/18/2024	18:33	LB134001
	Calcium	24600	25000	98	90 - 110	P	12/18/2024	18:33	LB134001
	Chromium	1010	1000	101	90 - 110	P	12/18/2024	18:33	LB134001
	Cobalt	2410	2500	96	90 - 110	P	12/18/2024	18:33	LB134001
	Copper	1200	1250	96	90 - 110	P	12/18/2024	18:33	LB134001
	Iron	4850	5000	97	90 - 110	P	12/18/2024	18:33	LB134001
	Lead	4830	5000	97	90 - 110	P	12/18/2024	18:33	LB134001
	Magnesium	25100	25000	100	90 - 110	P	12/18/2024	18:33	LB134001
	Manganese	2500	2500	100	90 - 110	P	12/18/2024	18:33	LB134001

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Nickel	2420	2500	97	90 - 110	P	12/18/2024	18:33	LB134001
	Potassium	23300	25000	93	90 - 110	P	12/18/2024	18:33	LB134001
	Selenium	4650	5000	93	90 - 110	P	12/18/2024	18:33	LB134001
	Silver	1220	1250	98	90 - 110	P	12/18/2024	18:33	LB134001
	Sodium	23200	25000	93	90 - 110	P	12/18/2024	18:33	LB134001
	Thallium	4850	5000	97	90 - 110	P	12/18/2024	18:33	LB134001
	Vanadium	2450	2500	98	90 - 110	P	12/18/2024	18:33	LB134001
	Zinc	2430	2500	97	90 - 110	P	12/18/2024	18:33	LB134001

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

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	Aluminum	2410	2500	97	90 - 110	P	12/23/2024	11:17	LB134066
	Antimony	1010	1000	101	90 - 110	P	12/23/2024	11:17	LB134066
	Arsenic	1050	1000	105	90 - 110	P	12/23/2024	11:17	LB134066
	Barium	484	520	93	90 - 110	P	12/23/2024	11:17	LB134066
	Beryllium	472	510	93	90 - 110	P	12/23/2024	11:17	LB134066
	Cadmium	508	510	100	90 - 110	P	12/23/2024	11:17	LB134066
	Calcium	9500	10000	95	90 - 110	P	12/23/2024	11:17	LB134066
	Chromium	532	520	102	90 - 110	P	12/23/2024	11:17	LB134066
	Cobalt	516	520	99	90 - 110	P	12/23/2024	11:17	LB134066
	Copper	530	510	104	90 - 110	P	12/23/2024	11:17	LB134066
	Iron	10200	10000	102	90 - 110	P	12/23/2024	11:17	LB134066
	Lead	1020	1000	102	90 - 110	P	12/23/2024	11:17	LB134066
	Magnesium	5570	6000	93	90 - 110	P	12/23/2024	11:17	LB134066
	Manganese	490	520	94	90 - 110	P	12/23/2024	11:17	LB134066
	Nickel	519	530	98	90 - 110	P	12/23/2024	11:17	LB134066
	Potassium	9950	9900	100	90 - 110	P	12/23/2024	11:17	LB134066
	Selenium	1050	1000	105	90 - 110	P	12/23/2024	11:17	LB134066
	Silver	260	250	104	90 - 110	P	12/23/2024	11:17	LB134066
	Sodium	9710	10000	97	90 - 110	P	12/23/2024	11:17	LB134066
	Thallium	1020	1000	102	90 - 110	P	12/23/2024	11:17	LB134066
	Vanadium	470	500	94	90 - 110	P	12/23/2024	11:17	LB134066
	Zinc	1030	1000	103	90 - 110	P	12/23/2024	11:17	LB134066

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

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	Aluminum	99.3	100	99	80 - 120	P	12/23/2024	11:37	LB134066
	Antimony	50.0	50.0	100	80 - 120	P	12/23/2024	11:37	LB134066
	Arsenic	20.6	20.0	103	80 - 120	P	12/23/2024	11:37	LB134066
	Barium	90.4	100	90	80 - 120	P	12/23/2024	11:37	LB134066
	Beryllium	5.75	6.0	96	80 - 120	P	12/23/2024	11:37	LB134066
	Cadmium	5.89	6.0	98	80 - 120	P	12/23/2024	11:37	LB134066
	Calcium	1970	2000	98	80 - 120	P	12/23/2024	11:37	LB134066
	Chromium	9.87	10.0	99	80 - 120	P	12/23/2024	11:37	LB134066
	Cobalt	29.2	30.0	97	80 - 120	P	12/23/2024	11:37	LB134066
	Copper	21.8	20.0	109	80 - 120	P	12/23/2024	11:37	LB134066
	Iron	105	100	104	80 - 120	P	12/23/2024	11:37	LB134066
	Lead	12.0	12.0	100	80 - 120	P	12/23/2024	11:37	LB134066
	Magnesium	2020	2000	101	80 - 120	P	12/23/2024	11:37	LB134066
	Manganese	19.5	20.0	98	80 - 120	P	12/23/2024	11:37	LB134066
	Nickel	39.3	40.0	98	80 - 120	P	12/23/2024	11:37	LB134066
	Potassium	1870	2000	94	80 - 120	P	12/23/2024	11:37	LB134066
	Selenium	19.0	20.0	95	80 - 120	P	12/23/2024	11:37	LB134066
	Silver	10.8	10.0	108	80 - 120	P	12/23/2024	11:37	LB134066
	Sodium	1800	2000	90	80 - 120	P	12/23/2024	11:37	LB134066
	Thallium	40.5	40.0	101	80 - 120	P	12/23/2024	11:37	LB134066
	Vanadium	38.0	40.0	95	80 - 120	P	12/23/2024	11:37	LB134066
	Zinc	45.7	40.0	114	80 - 120	P	12/23/2024	11:37	LB134066

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

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	Aluminum	9870	10000	99	90 - 110	P	12/23/2024	12:31	LB134066
	Antimony	5170	5000	103	90 - 110	P	12/23/2024	12:31	LB134066
	Arsenic	5110	5000	102	90 - 110	P	12/23/2024	12:31	LB134066
	Barium	9710	10000	97	90 - 110	P	12/23/2024	12:31	LB134066
	Beryllium	232	250	93	90 - 110	P	12/23/2024	12:31	LB134066
	Cadmium	2450	2500	98	90 - 110	P	12/23/2024	12:31	LB134066
	Calcium	23800	25000	95	90 - 110	P	12/23/2024	12:31	LB134066
	Chromium	998	1000	100	90 - 110	P	12/23/2024	12:31	LB134066
	Cobalt	2460	2500	98	90 - 110	P	12/23/2024	12:31	LB134066
	Copper	1280	1250	102	90 - 110	P	12/23/2024	12:31	LB134066
	Iron	5080	5000	102	90 - 110	P	12/23/2024	12:31	LB134066
	Lead	4890	5000	98	90 - 110	P	12/23/2024	12:31	LB134066
	Magnesium	23600	25000	94	90 - 110	P	12/23/2024	12:31	LB134066
	Manganese	2380	2500	95	90 - 110	P	12/23/2024	12:31	LB134066
	Nickel	2470	2500	99	90 - 110	P	12/23/2024	12:31	LB134066
	Potassium	25700	25000	103	90 - 110	P	12/23/2024	12:31	LB134066
	Selenium	5190	5000	104	90 - 110	P	12/23/2024	12:31	LB134066
	Silver	1250	1250	100	90 - 110	P	12/23/2024	12:31	LB134066
	Sodium	25200	25000	101	90 - 110	P	12/23/2024	12:31	LB134066
	Thallium	5150	5000	103	90 - 110	P	12/23/2024	12:31	LB134066
	Vanadium	2440	2500	98	90 - 110	P	12/23/2024	12:31	LB134066
	Zinc	2450	2500	98	90 - 110	P	12/23/2024	12:31	LB134066
CCV02	Aluminum	10200	10000	102	90 - 110	P	12/23/2024	13:43	LB134066
	Antimony	5450	5000	109	90 - 110	P	12/23/2024	13:43	LB134066
	Arsenic	5360	5000	107	90 - 110	P	12/23/2024	13:43	LB134066
	Barium	10100	10000	101	90 - 110	P	12/23/2024	13:43	LB134066
	Beryllium	230	250	92	90 - 110	P	12/23/2024	13:43	LB134066
	Cadmium	2500	2500	100	90 - 110	P	12/23/2024	13:43	LB134066
	Calcium	24000	25000	96	90 - 110	P	12/23/2024	13:43	LB134066
	Chromium	1000	1000	100	90 - 110	P	12/23/2024	13:43	LB134066
	Cobalt	2520	2500	101	90 - 110	P	12/23/2024	13:43	LB134066
	Copper	1340	1250	107	90 - 110	P	12/23/2024	13:43	LB134066
	Iron	5260	5000	105	90 - 110	P	12/23/2024	13:43	LB134066
	Lead	4990	5000	100	90 - 110	P	12/23/2024	13:43	LB134066

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

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
CCV02	Magnesium	23600	25000	94	90 - 110	P	12/23/2024	13:43	LB134066
	Manganese	2410	2500	96	90 - 110	P	12/23/2024	13:43	LB134066
	Nickel	2530	2500	101	90 - 110	P	12/23/2024	13:43	LB134066
	Potassium	27300	25000	109	90 - 110	P	12/23/2024	13:43	LB134066
	Selenium	5480	5000	110	90 - 110	P	12/23/2024	13:43	LB134066
	Silver	1270	1250	102	90 - 110	P	12/23/2024	13:43	LB134066
	Sodium	26600	25000	106	90 - 110	P	12/23/2024	13:43	LB134066
	Thallium	5230	5000	105	90 - 110	P	12/23/2024	13:43	LB134066
	Vanadium	2490	2500	100	90 - 110	P	12/23/2024	13:43	LB134066
	Zinc	2450	2500	98	90 - 110	P	12/23/2024	13:43	LB134066
CCV03	Aluminum	10200	10000	102	90 - 110	P	12/23/2024	14:07	LB134066
	Antimony	5490	5000	110	90 - 110	P	12/23/2024	14:07	LB134066
	Arsenic	5340	5000	107	90 - 110	P	12/23/2024	14:07	LB134066
	Barium	10200	10000	102	90 - 110	P	12/23/2024	14:07	LB134066
	Beryllium	230	250	92	90 - 110	P	12/23/2024	14:07	LB134066
	Cadmium	2470	2500	99	90 - 110	P	12/23/2024	14:07	LB134066
	Calcium	24000	25000	96	90 - 110	P	12/23/2024	14:07	LB134066
	Chromium	1000	1000	100	90 - 110	P	12/23/2024	14:07	LB134066
	Cobalt	2500	2500	100	90 - 110	P	12/23/2024	14:07	LB134066
	Copper	1340	1250	107	90 - 110	P	12/23/2024	14:07	LB134066
	Iron	5200	5000	104	90 - 110	P	12/23/2024	14:07	LB134066
	Lead	4940	5000	99	90 - 110	P	12/23/2024	14:07	LB134066
	Magnesium	23400	25000	94	90 - 110	P	12/23/2024	14:07	LB134066
	Manganese	2400	2500	96	90 - 110	P	12/23/2024	14:07	LB134066
	Nickel	2510	2500	100	90 - 110	P	12/23/2024	14:07	LB134066
	Potassium	27200	25000	109	90 - 110	P	12/23/2024	14:07	LB134066
	Selenium	5480	5000	110	90 - 110	P	12/23/2024	14:07	LB134066
	Silver	1270	1250	102	90 - 110	P	12/23/2024	14:07	LB134066
	Sodium	26100	25000	104	90 - 110	P	12/23/2024	14:07	LB134066
	Thallium	5190	5000	104	90 - 110	P	12/23/2024	14:07	LB134066
	Vanadium	2490	2500	100	90 - 110	P	12/23/2024	14:07	LB134066
	Zinc	2450	2500	98	90 - 110	P	12/23/2024	14:07	LB134066
CCV04	Aluminum	10000	10000	100	90 - 110	P	12/23/2024	15:06	LB134066
	Antimony	5310	5000	106	90 - 110	P	12/23/2024	15:06	LB134066

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

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	Arsenic	5210	5000	104	90 - 110	P	12/23/2024	15:06	LB134066
	Barium	9720	10000	97	90 - 110	P	12/23/2024	15:06	LB134066
	Beryllium	226	250	90	90 - 110	P	12/23/2024	15:06	LB134066
	Cadmium	2450	2500	98	90 - 110	P	12/23/2024	15:06	LB134066
	Calcium	23400	25000	94	90 - 110	P	12/23/2024	15:06	LB134066
	Chromium	998	1000	100	90 - 110	P	12/23/2024	15:06	LB134066
	Cobalt	2460	2500	98	90 - 110	P	12/23/2024	15:06	LB134066
	Copper	1300	1250	104	90 - 110	P	12/23/2024	15:06	LB134066
	Iron	5150	5000	103	90 - 110	P	12/23/2024	15:06	LB134066
	Lead	4870	5000	97	90 - 110	P	12/23/2024	15:06	LB134066
	Magnesium	23100	25000	92	90 - 110	P	12/23/2024	15:06	LB134066
	Manganese	2330	2500	93	90 - 110	P	12/23/2024	15:06	LB134066
	Nickel	2480	2500	99	90 - 110	P	12/23/2024	15:06	LB134066
	Potassium	26400	25000	106	90 - 110	P	12/23/2024	15:06	LB134066
	Selenium	5340	5000	107	90 - 110	P	12/23/2024	15:06	LB134066
	Silver	1250	1250	100	90 - 110	P	12/23/2024	15:06	LB134066
	Sodium	24200	25000	97	90 - 110	P	12/23/2024	15:06	LB134066
	Thallium	5280	5000	106	90 - 110	P	12/23/2024	15:06	LB134066
	Vanadium	2440	2500	98	90 - 110	P	12/23/2024	15:06	LB134066
	Zinc	2350	2500	94	90 - 110	P	12/23/2024	15:06	LB134066
CCV05	Aluminum	10300	10000	103	90 - 110	P	12/23/2024	16:06	LB134066
	Antimony	5490	5000	110	90 - 110	P	12/23/2024	16:06	LB134066
	Arsenic	5380	5000	108	90 - 110	P	12/23/2024	16:06	LB134066
	Barium	9910	10000	99	90 - 110	P	12/23/2024	16:06	LB134066
	Beryllium	227	250	91	90 - 110	P	12/23/2024	16:06	LB134066
	Cadmium	2470	2500	99	90 - 110	P	12/23/2024	16:06	LB134066
	Calcium	23700	25000	95	90 - 110	P	12/23/2024	16:06	LB134066
	Chromium	1010	1000	101	90 - 110	P	12/23/2024	16:06	LB134066
	Cobalt	2490	2500	100	90 - 110	P	12/23/2024	16:06	LB134066
	Copper	1340	1250	108	90 - 110	P	12/23/2024	16:06	LB134066
	Iron	5240	5000	105	90 - 110	P	12/23/2024	16:06	LB134066
	Lead	4920	5000	98	90 - 110	P	12/23/2024	16:06	LB134066
	Magnesium	23200	25000	93	90 - 110	P	12/23/2024	16:06	LB134066
	Manganese	2360	2500	94	90 - 110	P	12/23/2024	16:06	LB134066

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Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

Initial Calibration Source: EPA

Continuing Calibration Source: Inorganic Ventures

Sample ID	Analyte	Result ug/L	True Value	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CCV05	Nickel	2510	2500	100	90 - 110	P	12/23/2024	16:06	LB134066
	Potassium	27100	25000	108	90 - 110	P	12/23/2024	16:06	LB134066
	Selenium	5500	5000	110	90 - 110	P	12/23/2024	16:06	LB134066
	Silver	1270	1250	102	90 - 110	P	12/23/2024	16:06	LB134066
	Sodium	25000	25000	100	90 - 110	P	12/23/2024	16:06	LB134066
	Thallium	5080	5000	102	90 - 110	P	12/23/2024	16:06	LB134066
	Vanadium	2490	2500	100	90 - 110	P	12/23/2024	16:06	LB134066
	Zinc	2350	2500	94	90 - 110	P	12/23/2024	16:06	LB134066
CCV06	Aluminum	10300	10000	103	90 - 110	P	12/23/2024	16:54	LB134066
	Antimony	5440	5000	109	90 - 110	P	12/23/2024	16:54	LB134066
	Arsenic	5350	5000	107	90 - 110	P	12/23/2024	16:54	LB134066
	Barium	10100	10000	101	90 - 110	P	12/23/2024	16:54	LB134066
	Beryllium	243	250	97	90 - 110	P	12/23/2024	16:54	LB134066
	Cadmium	2540	2500	102	90 - 110	P	12/23/2024	16:54	LB134066
	Calcium	24500	25000	98	90 - 110	P	12/23/2024	16:54	LB134066
	Chromium	1040	1000	104	90 - 110	P	12/23/2024	16:54	LB134066
	Cobalt	2540	2500	102	90 - 110	P	12/23/2024	16:54	LB134066
	Copper	1350	1250	108	90 - 110	P	12/23/2024	16:54	LB134066
	Iron	5220	5000	104	90 - 110	P	12/23/2024	16:54	LB134066
	Lead	5030	5000	100	90 - 110	P	12/23/2024	16:54	LB134066
	Magnesium	24200	25000	97	90 - 110	P	12/23/2024	16:54	LB134066
	Manganese	2430	2500	97	90 - 110	P	12/23/2024	16:54	LB134066
	Nickel	2560	2500	102	90 - 110	P	12/23/2024	16:54	LB134066
	Potassium	26600	25000	106	90 - 110	P	12/23/2024	16:54	LB134066
	Selenium	5460	5000	109	90 - 110	P	12/23/2024	16:54	LB134066
	Silver	1280	1250	103	90 - 110	P	12/23/2024	16:54	LB134066
	Sodium	24700	25000	99	90 - 110	P	12/23/2024	16:54	LB134066
	Thallium	5270	5000	105	90 - 110	P	12/23/2024	16:54	LB134066
	Vanadium	2540	2500	101	90 - 110	P	12/23/2024	16:54	LB134066
	Zinc	2340	2500	94	90 - 110	P	12/23/2024	16:54	LB134066

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Metals

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CRDL STANDARD FOR AA & ICP

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

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	0.16	0.2	82	40 - 160	CV	12/18/2024	13:45	LB133991
CRI01	Aluminum	97.1	100	97	40 - 160	P	12/18/2024	15:07	LB134001
	Antimony	47.2	50.0	94	40 - 160	P	12/18/2024	15:07	LB134001
	Arsenic	20.5	20.0	102	40 - 160	P	12/18/2024	15:07	LB134001
	Barium	91.9	100	92	40 - 160	P	12/18/2024	15:07	LB134001
	Beryllium	5.60	6.0	93	40 - 160	P	12/18/2024	15:07	LB134001
	Cadmium	5.61	6.0	94	40 - 160	P	12/18/2024	15:07	LB134001
	Calcium	1890	2000	94	40 - 160	P	12/18/2024	15:07	LB134001
	Chromium	9.82	10.0	98	40 - 160	P	12/18/2024	15:07	LB134001
	Cobalt	28.0	30.0	93	40 - 160	P	12/18/2024	15:07	LB134001
	Copper	21.4	20.0	107	40 - 160	P	12/18/2024	15:07	LB134001
	Iron	93.2	100	93	40 - 160	P	12/18/2024	15:07	LB134001
	Lead	11.1	12.0	93	40 - 160	P	12/18/2024	15:07	LB134001
	Magnesium	1990	2000	99	40 - 160	P	12/18/2024	15:07	LB134001
	Manganese	19.3	20.0	96	40 - 160	P	12/18/2024	15:07	LB134001
	Nickel	37.1	40.0	93	40 - 160	P	12/18/2024	15:07	LB134001
	Potassium	1890	2000	95	40 - 160	P	12/18/2024	15:07	LB134001
	Selenium	17.2	20.0	86	40 - 160	P	12/18/2024	15:07	LB134001
	Silver	9.79	10.0	98	40 - 160	P	12/18/2024	15:07	LB134001
	Sodium	1880	2000	94	40 - 160	P	12/18/2024	15:07	LB134001
	Thallium	38.1	40.0	95	40 - 160	P	12/18/2024	15:07	LB134001
	Vanadium	35.4	40.0	88	40 - 160	P	12/18/2024	15:07	LB134001
	Zinc	44.9	40.0	112	40 - 160	P	12/18/2024	15:07	LB134001
CRI01	Aluminum	102	100	102	40 - 160	P	12/23/2024	11:51	LB134066
	Antimony	49.6	50.0	99	40 - 160	P	12/23/2024	11:51	LB134066
	Arsenic	19.2	20.0	96	40 - 160	P	12/23/2024	11:51	LB134066
	Barium	92.0	100	92	40 - 160	P	12/23/2024	11:51	LB134066
	Beryllium	5.71	6.0	95	40 - 160	P	12/23/2024	11:51	LB134066
	Cadmium	5.81	6.0	97	40 - 160	P	12/23/2024	11:51	LB134066
	Calcium	1940	2000	97	40 - 160	P	12/23/2024	11:51	LB134066
	Chromium	9.74	10.0	97	40 - 160	P	12/23/2024	11:51	LB134066
	Cobalt	29.2	30.0	97	40 - 160	P	12/23/2024	11:51	LB134066
	Copper	21.9	20.0	110	40 - 160	P	12/23/2024	11:51	LB134066
	Iron	100	100	100	40 - 160	P	12/23/2024	11:51	LB134066
	Lead	11.0	12.0	92	40 - 160	P	12/23/2024	11:51	LB134066

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Metals

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CRDL STANDARD FOR AA & ICP

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

Initial Calibration Source:

Continuing Calibration Source:

Sample ID	Analyte	Result ug/L	True Value ug/L	% Recovery	Acceptance Window (%R)	M	Analysis Date	Analysis Time	Run Number
CRI01	Magnesium	2040	2000	102	40 - 160	P	12/23/2024	11:51	LB134066
	Manganese	19.6	20.0	98	40 - 160	P	12/23/2024	11:51	LB134066
	Nickel	39.3	40.0	98	40 - 160	P	12/23/2024	11:51	LB134066
	Potassium	1910	2000	96	40 - 160	P	12/23/2024	11:51	LB134066
	Selenium	17.1	20.0	86	40 - 160	P	12/23/2024	11:51	LB134066
	Silver	11.0	10.0	110	40 - 160	P	12/23/2024	11:51	LB134066
	Sodium	1810	2000	91	40 - 160	P	12/23/2024	11:51	LB134066
	Thallium	41.5	40.0	104	40 - 160	P	12/23/2024	11:51	LB134066
	Vanadium	38.4	40.0	96	40 - 160	P	12/23/2024	11:51	LB134066
	Zinc	41.4	40.0	104	40 - 160	P	12/23/2024	11:51	LB134066

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB24	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	12/18/2024	13:39	LB133991

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB42	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	12/18/2024	13:43	LB133991
CCB43	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	12/18/2024	14:11	LB133991
CCB44	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	12/18/2024	14:48	LB133991
CCB45	Mercury	0.20	+/-0.20	U	0.16	0.20	CV	12/18/2024	15:09	LB133991

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	100	+/-100	U	80.0	100	P	12/18/2024	15:03	LB134001
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	12/18/2024	15:03	LB134001
	Arsenic	20.0	+/-20.0	U	16.0	20.0	P	12/18/2024	15:03	LB134001
	Barium	100	+/-100	U	25.0	100	P	12/18/2024	15:03	LB134001
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	12/18/2024	15:03	LB134001
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	12/18/2024	15:03	LB134001
	Calcium	2000	+/-2000	U	500	2000	P	12/18/2024	15:03	LB134001
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	12/18/2024	15:03	LB134001
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	12/18/2024	15:03	LB134001
	Copper	20.0	+/-20.0	U	16.0	20.0	P	12/18/2024	15:03	LB134001
	Iron	100	+/-100	U	80.0	100	P	12/18/2024	15:03	LB134001
	Lead	12.0	+/-12.0	U	9.60	12.0	P	12/18/2024	15:03	LB134001
	Magnesium	2000	+/-2000	U	500	2000	P	12/18/2024	15:03	LB134001
	Manganese	20.0	+/-20.0	U	5.00	20.0	P	12/18/2024	15:03	LB134001
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	12/18/2024	15:03	LB134001
	Potassium	2000	+/-2000	U	1600	2000	P	12/18/2024	15:03	LB134001
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	12/18/2024	15:03	LB134001
	Silver	10.0	+/-10.0	U	5.00	10.0	P	12/18/2024	15:03	LB134001
	Sodium	2000	+/-2000	U	1000	2000	P	12/18/2024	15:03	LB134001
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	12/18/2024	15:03	LB134001
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	12/18/2024	15:03	LB134001
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	12/18/2024	15:03	LB134001

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	100	+/-100	U	80.0	100	P	12/18/2024	15:31	LB134001
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	12/18/2024	15:31	LB134001
	Arsenic	20.0	+/-20.0	U	16.0	20.0	P	12/18/2024	15:31	LB134001
	Barium	100	+/-100	U	25.0	100	P	12/18/2024	15:31	LB134001
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	12/18/2024	15:31	LB134001
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	12/18/2024	15:31	LB134001
	Calcium	73.6	+/-2000	J	500	2000	P	12/18/2024	15:31	LB134001
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	12/18/2024	15:31	LB134001
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	12/18/2024	15:31	LB134001
	Copper	20.0	+/-20.0	U	16.0	20.0	P	12/18/2024	15:31	LB134001
	Iron	100	+/-100	U	80.0	100	P	12/18/2024	15:31	LB134001
	Lead	12.0	+/-12.0	U	9.60	12.0	P	12/18/2024	15:31	LB134001
	Magnesium	2000	+/-2000	U	500	2000	P	12/18/2024	15:31	LB134001
	Manganese	20.0	+/-20.0	U	5.00	20.0	P	12/18/2024	15:31	LB134001
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	12/18/2024	15:31	LB134001
	Potassium	2000	+/-2000	U	1600	2000	P	12/18/2024	15:31	LB134001
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	12/18/2024	15:31	LB134001
	Silver	10.0	+/-10.0	U	5.00	10.0	P	12/18/2024	15:31	LB134001
	Sodium	2000	+/-2000	U	1000	2000	P	12/18/2024	15:31	LB134001
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	12/18/2024	15:31	LB134001
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	12/18/2024	15:31	LB134001
	Zinc	7.56	+/-40.0	J	10.0	40.0	P	12/18/2024	15:31	LB134001
CCB02	Aluminum	100	+/-100	U	80.0	100	P	12/18/2024	16:14	LB134001
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	12/18/2024	16:14	LB134001
	Arsenic	20.0	+/-20.0	U	16.0	20.0	P	12/18/2024	16:14	LB134001
	Barium	100	+/-100	U	25.0	100	P	12/18/2024	16:14	LB134001
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	12/18/2024	16:14	LB134001
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	12/18/2024	16:14	LB134001
	Calcium	2000	+/-2000	U	500	2000	P	12/18/2024	16:14	LB134001
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	12/18/2024	16:14	LB134001
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	12/18/2024	16:14	LB134001
	Copper	20.0	+/-20.0	U	16.0	20.0	P	12/18/2024	16:14	LB134001
	Iron	100	+/-100	U	80.0	100	P	12/18/2024	16:14	LB134001
	Lead	12.0	+/-12.0	U	9.60	12.0	P	12/18/2024	16:14	LB134001
	Magnesium	2000	+/-2000	U	500	2000	P	12/18/2024	16:14	LB134001
	Manganese	20.0	+/-20.0	U	5.00	20.0	P	12/18/2024	16:14	LB134001
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	12/18/2024	16:14	LB134001
	Potassium	2000	+/-2000	U	1600	2000	P	12/18/2024	16:14	LB134001
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	12/18/2024	16:14	LB134001

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Silver	10.0	+/-10.0	U	5.00	10.0	P	12/18/2024	16:14	LB134001
	Sodium	2000	+/-2000	U	1000	2000	P	12/18/2024	16:14	LB134001
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	12/18/2024	16:14	LB134001
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	12/18/2024	16:14	LB134001
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	12/18/2024	16:14	LB134001
CCB03	Aluminum	100	+/-100	U	80.0	100	P	12/18/2024	17:05	LB134001
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	12/18/2024	17:05	LB134001
	Arsenic	20.0	+/-20.0	U	16.0	20.0	P	12/18/2024	17:05	LB134001
	Barium	100	+/-100	U	25.0	100	P	12/18/2024	17:05	LB134001
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	12/18/2024	17:05	LB134001
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	12/18/2024	17:05	LB134001
	Calcium	2000	+/-2000	U	500	2000	P	12/18/2024	17:05	LB134001
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	12/18/2024	17:05	LB134001
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	12/18/2024	17:05	LB134001
	Copper	20.0	+/-20.0	U	16.0	20.0	P	12/18/2024	17:05	LB134001
	Iron	100	+/-100	U	80.0	100	P	12/18/2024	17:05	LB134001
	Lead	12.0	+/-12.0	U	9.60	12.0	P	12/18/2024	17:05	LB134001
	Magnesium	2000	+/-2000	U	500	2000	P	12/18/2024	17:05	LB134001
	Manganese	20.0	+/-20.0	U	5.00	20.0	P	12/18/2024	17:05	LB134001
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	12/18/2024	17:05	LB134001
	Potassium	2000	+/-2000	U	1600	2000	P	12/18/2024	17:05	LB134001
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	12/18/2024	17:05	LB134001
	Silver	10.0	+/-10.0	U	5.00	10.0	P	12/18/2024	17:05	LB134001
	Sodium	2000	+/-2000	U	1000	2000	P	12/18/2024	17:05	LB134001
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	12/18/2024	17:05	LB134001
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	12/18/2024	17:05	LB134001
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	12/18/2024	17:05	LB134001
CCB04	Aluminum	100	+/-100	U	80.0	100	P	12/18/2024	17:47	LB134001
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	12/18/2024	17:47	LB134001
	Arsenic	20.0	+/-20.0	U	16.0	20.0	P	12/18/2024	17:47	LB134001
	Barium	100	+/-100	U	25.0	100	P	12/18/2024	17:47	LB134001
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	12/18/2024	17:47	LB134001
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	12/18/2024	17:47	LB134001
	Calcium	2000	+/-2000	U	500	2000	P	12/18/2024	17:47	LB134001
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	12/18/2024	17:47	LB134001
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	12/18/2024	17:47	LB134001
	Copper	20.0	+/-20.0	U	16.0	20.0	P	12/18/2024	17:47	LB134001
	Iron	100	+/-100	U	80.0	100	P	12/18/2024	17:47	LB134001
	Lead	12.0	+/-12.0	U	9.60	12.0	P	12/18/2024	17:47	LB134001

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Magnesium	2000	+/-2000	U	500	2000	P	12/18/2024	17:47	LB134001
	Manganese	20.0	+/-20.0	U	5.00	20.0	P	12/18/2024	17:47	LB134001
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	12/18/2024	17:47	LB134001
	Potassium	2000	+/-2000	U	1600	2000	P	12/18/2024	17:47	LB134001
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	12/18/2024	17:47	LB134001
	Silver	10.0	+/-10.0	U	5.00	10.0	P	12/18/2024	17:47	LB134001
	Sodium	2000	+/-2000	U	1000	2000	P	12/18/2024	17:47	LB134001
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	12/18/2024	17:47	LB134001
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	12/18/2024	17:47	LB134001
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	12/18/2024	17:47	LB134001
CCB05	Aluminum	100	+/-100	U	80.0	100	P	12/18/2024	18:37	LB134001
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	12/18/2024	18:37	LB134001
	Arsenic	20.0	+/-20.0	U	16.0	20.0	P	12/18/2024	18:37	LB134001
	Barium	100	+/-100	U	25.0	100	P	12/18/2024	18:37	LB134001
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	12/18/2024	18:37	LB134001
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	12/18/2024	18:37	LB134001
	Calcium	2000	+/-2000	U	500	2000	P	12/18/2024	18:37	LB134001
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	12/18/2024	18:37	LB134001
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	12/18/2024	18:37	LB134001
	Copper	20.0	+/-20.0	U	16.0	20.0	P	12/18/2024	18:37	LB134001
	Iron	100	+/-100	U	80.0	100	P	12/18/2024	18:37	LB134001
	Lead	12.0	+/-12.0	U	9.60	12.0	P	12/18/2024	18:37	LB134001
	Magnesium	2000	+/-2000	U	500	2000	P	12/18/2024	18:37	LB134001
	Manganese	20.0	+/-20.0	U	5.00	20.0	P	12/18/2024	18:37	LB134001
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	12/18/2024	18:37	LB134001
	Potassium	2000	+/-2000	U	1600	2000	P	12/18/2024	18:37	LB134001
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	12/18/2024	18:37	LB134001
	Silver	10.0	+/-10.0	U	5.00	10.0	P	12/18/2024	18:37	LB134001
	Sodium	2000	+/-2000	U	1000	2000	P	12/18/2024	18:37	LB134001
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	12/18/2024	18:37	LB134001
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	12/18/2024	18:37	LB134001
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	12/18/2024	18:37	LB134001

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	100	+/-100	U	80.0	100	P	12/23/2024	11:44	LB134066
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	12/23/2024	11:44	LB134066
	Arsenic	20.0	+/-20.0	U	16.0	20.0	P	12/23/2024	11:44	LB134066
	Barium	100	+/-100	U	25.0	100	P	12/23/2024	11:44	LB134066
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	12/23/2024	11:44	LB134066
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	12/23/2024	11:44	LB134066
	Calcium	2000	+/-2000	U	500	2000	P	12/23/2024	11:44	LB134066
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	12/23/2024	11:44	LB134066
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	12/23/2024	11:44	LB134066
	Copper	20.0	+/-20.0	U	16.0	20.0	P	12/23/2024	11:44	LB134066
	Iron	100	+/-100	U	80.0	100	P	12/23/2024	11:44	LB134066
	Lead	12.0	+/-12.0	U	9.60	12.0	P	12/23/2024	11:44	LB134066
	Magnesium	2000	+/-2000	U	500	2000	P	12/23/2024	11:44	LB134066
	Manganese	20.0	+/-20.0	U	5.00	20.0	P	12/23/2024	11:44	LB134066
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	12/23/2024	11:44	LB134066
	Potassium	2000	+/-2000	U	1600	2000	P	12/23/2024	11:44	LB134066
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	12/23/2024	11:44	LB134066
	Silver	10.0	+/-10.0	U	5.00	10.0	P	12/23/2024	11:44	LB134066
	Sodium	2000	+/-2000	U	1000	2000	P	12/23/2024	11:44	LB134066
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	12/23/2024	11:44	LB134066
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	12/23/2024	11:44	LB134066
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	12/23/2024	11:44	LB134066

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	100	+/-100	U	80.0	100	P	12/23/2024	12:35	LB134066
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	12/23/2024	12:35	LB134066
	Arsenic	20.0	+/-20.0	U	16.0	20.0	P	12/23/2024	12:35	LB134066
	Barium	100	+/-100	U	25.0	100	P	12/23/2024	12:35	LB134066
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	12/23/2024	12:35	LB134066
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	12/23/2024	12:35	LB134066
	Calcium	2000	+/-2000	U	500	2000	P	12/23/2024	12:35	LB134066
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	12/23/2024	12:35	LB134066
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	12/23/2024	12:35	LB134066
	Copper	20.0	+/-20.0	U	16.0	20.0	P	12/23/2024	12:35	LB134066
	Iron	100	+/-100	U	80.0	100	P	12/23/2024	12:35	LB134066
	Lead	12.0	+/-12.0	U	9.60	12.0	P	12/23/2024	12:35	LB134066
	Magnesium	2000	+/-2000	U	500	2000	P	12/23/2024	12:35	LB134066
	Manganese	20.0	+/-20.0	U	5.00	20.0	P	12/23/2024	12:35	LB134066
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	12/23/2024	12:35	LB134066
	Potassium	2000	+/-2000	U	1600	2000	P	12/23/2024	12:35	LB134066
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	12/23/2024	12:35	LB134066
	Silver	10.0	+/-10.0	U	5.00	10.0	P	12/23/2024	12:35	LB134066
	Sodium	2000	+/-2000	U	1000	2000	P	12/23/2024	12:35	LB134066
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	12/23/2024	12:35	LB134066
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	12/23/2024	12:35	LB134066
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	12/23/2024	12:35	LB134066
CCB02	Aluminum	100	+/-100	U	80.0	100	P	12/23/2024	13:47	LB134066
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	12/23/2024	13:47	LB134066
	Arsenic	20.0	+/-20.0	U	16.0	20.0	P	12/23/2024	13:47	LB134066
	Barium	100	+/-100	U	25.0	100	P	12/23/2024	13:47	LB134066
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	12/23/2024	13:47	LB134066
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	12/23/2024	13:47	LB134066
	Calcium	2000	+/-2000	U	500	2000	P	12/23/2024	13:47	LB134066
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	12/23/2024	13:47	LB134066
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	12/23/2024	13:47	LB134066
	Copper	20.0	+/-20.0	U	16.0	20.0	P	12/23/2024	13:47	LB134066
	Iron	100	+/-100	U	80.0	100	P	12/23/2024	13:47	LB134066
	Lead	12.0	+/-12.0	U	9.60	12.0	P	12/23/2024	13:47	LB134066
	Magnesium	2000	+/-2000	U	500	2000	P	12/23/2024	13:47	LB134066
	Manganese	20.0	+/-20.0	U	5.00	20.0	P	12/23/2024	13:47	LB134066
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	12/23/2024	13:47	LB134066
	Potassium	2000	+/-2000	U	1600	2000	P	12/23/2024	13:47	LB134066
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	12/23/2024	13:47	LB134066

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB02	Silver	10.0	+/-10.0	U	5.00	10.0	P	12/23/2024	13:47	LB134066
	Sodium	2000	+/-2000	U	1000	2000	P	12/23/2024	13:47	LB134066
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	12/23/2024	13:47	LB134066
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	12/23/2024	13:47	LB134066
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	12/23/2024	13:47	LB134066
CCB03	Aluminum	100	+/-100	U	80.0	100	P	12/23/2024	14:11	LB134066
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	12/23/2024	14:11	LB134066
	Arsenic	20.0	+/-20.0	U	16.0	20.0	P	12/23/2024	14:11	LB134066
	Barium	100	+/-100	U	25.0	100	P	12/23/2024	14:11	LB134066
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	12/23/2024	14:11	LB134066
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	12/23/2024	14:11	LB134066
	Calcium	2000	+/-2000	U	500	2000	P	12/23/2024	14:11	LB134066
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	12/23/2024	14:11	LB134066
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	12/23/2024	14:11	LB134066
	Copper	20.0	+/-20.0	U	16.0	20.0	P	12/23/2024	14:11	LB134066
	Iron	100	+/-100	U	80.0	100	P	12/23/2024	14:11	LB134066
	Lead	12.0	+/-12.0	U	9.60	12.0	P	12/23/2024	14:11	LB134066
	Magnesium	2000	+/-2000	U	500	2000	P	12/23/2024	14:11	LB134066
	Manganese	20.0	+/-20.0	U	5.00	20.0	P	12/23/2024	14:11	LB134066
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	12/23/2024	14:11	LB134066
	Potassium	2000	+/-2000	U	1600	2000	P	12/23/2024	14:11	LB134066
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	12/23/2024	14:11	LB134066
	Silver	10.0	+/-10.0	U	5.00	10.0	P	12/23/2024	14:11	LB134066
	Sodium	2000	+/-2000	U	1000	2000	P	12/23/2024	14:11	LB134066
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	12/23/2024	14:11	LB134066
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	12/23/2024	14:11	LB134066
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	12/23/2024	14:11	LB134066
CCB04	Aluminum	100	+/-100	U	80.0	100	P	12/23/2024	15:10	LB134066
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	12/23/2024	15:10	LB134066
	Arsenic	20.0	+/-20.0	U	16.0	20.0	P	12/23/2024	15:10	LB134066
	Barium	100	+/-100	U	25.0	100	P	12/23/2024	15:10	LB134066
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	12/23/2024	15:10	LB134066
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	12/23/2024	15:10	LB134066
	Calcium	2000	+/-2000	U	500	2000	P	12/23/2024	15:10	LB134066
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	12/23/2024	15:10	LB134066
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	12/23/2024	15:10	LB134066
	Copper	20.0	+/-20.0	U	16.0	20.0	P	12/23/2024	15:10	LB134066
	Iron	100	+/-100	U	80.0	100	P	12/23/2024	15:10	LB134066
	Lead	12.0	+/-12.0	U	9.60	12.0	P	12/23/2024	15:10	LB134066

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Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB04	Magnesium	2000	+/-2000	U	500	2000	P	12/23/2024	15:10	LB134066
	Manganese	20.0	+/-20.0	U	5.00	20.0	P	12/23/2024	15:10	LB134066
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	12/23/2024	15:10	LB134066
	Potassium	2000	+/-2000	U	1600	2000	P	12/23/2024	15:10	LB134066
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	12/23/2024	15:10	LB134066
	Silver	10.0	+/-10.0	U	5.00	10.0	P	12/23/2024	15:10	LB134066
	Sodium	2000	+/-2000	U	1000	2000	P	12/23/2024	15:10	LB134066
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	12/23/2024	15:10	LB134066
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	12/23/2024	15:10	LB134066
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	12/23/2024	15:10	LB134066
CCB05	Aluminum	100	+/-100	U	80.0	100	P	12/23/2024	16:10	LB134066
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	12/23/2024	16:10	LB134066
	Arsenic	20.0	+/-20.0	U	16.0	20.0	P	12/23/2024	16:10	LB134066
	Barium	100	+/-100	U	25.0	100	P	12/23/2024	16:10	LB134066
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	12/23/2024	16:10	LB134066
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	12/23/2024	16:10	LB134066
	Calcium	2000	+/-2000	U	500	2000	P	12/23/2024	16:10	LB134066
	Chromium	10.0	+/-10.0	U	5.00	10.0	P	12/23/2024	16:10	LB134066
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	12/23/2024	16:10	LB134066
	Copper	20.0	+/-20.0	U	16.0	20.0	P	12/23/2024	16:10	LB134066
	Iron	100	+/-100	U	80.0	100	P	12/23/2024	16:10	LB134066
	Lead	12.0	+/-12.0	U	9.60	12.0	P	12/23/2024	16:10	LB134066
	Magnesium	2000	+/-2000	U	500	2000	P	12/23/2024	16:10	LB134066
	Manganese	20.0	+/-20.0	U	5.00	20.0	P	12/23/2024	16:10	LB134066
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	12/23/2024	16:10	LB134066
	Potassium	2000	+/-2000	U	1600	2000	P	12/23/2024	16:10	LB134066
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	12/23/2024	16:10	LB134066
	Silver	1.18	+/-10.0	J	5.00	10.0	P	12/23/2024	16:10	LB134066
	Sodium	2000	+/-2000	U	1000	2000	P	12/23/2024	16:10	LB134066
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	12/23/2024	16:10	LB134066
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	12/23/2024	16:10	LB134066
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	12/23/2024	16:10	LB134066
CCB06	Aluminum	100	+/-100	U	80.0	100	P	12/23/2024	16:58	LB134066
	Antimony	50.0	+/-50.0	U	12.5	50.0	P	12/23/2024	16:58	LB134066
	Arsenic	20.0	+/-20.0	U	16.0	20.0	P	12/23/2024	16:58	LB134066
	Barium	100	+/-100	U	25.0	100	P	12/23/2024	16:58	LB134066
	Beryllium	6.00	+/-6.00	U	1.50	6.00	P	12/23/2024	16:58	LB134066
	Cadmium	6.00	+/-6.00	U	1.50	6.00	P	12/23/2024	16:58	LB134066
	Calcium	2000	+/-2000	U	500	2000	P	12/23/2024	16:58	LB134066

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	LOD	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB06	Chromium	10.0	+/-10.0	U	5.00	10.0	P	12/23/2024	16:58	LB134066
	Cobalt	30.0	+/-30.0	U	7.50	30.0	P	12/23/2024	16:58	LB134066
	Copper	20.0	+/-20.0	U	16.0	20.0	P	12/23/2024	16:58	LB134066
	Iron	100	+/-100	U	80.0	100	P	12/23/2024	16:58	LB134066
	Lead	12.0	+/-12.0	U	9.60	12.0	P	12/23/2024	16:58	LB134066
	Magnesium	2000	+/-2000	U	500	2000	P	12/23/2024	16:58	LB134066
	Manganese	20.0	+/-20.0	U	5.00	20.0	P	12/23/2024	16:58	LB134066
	Nickel	40.0	+/-40.0	U	10.0	40.0	P	12/23/2024	16:58	LB134066
	Potassium	2000	+/-2000	U	1600	2000	P	12/23/2024	16:58	LB134066
	Selenium	20.0	+/-20.0	U	16.0	20.0	P	12/23/2024	16:58	LB134066
	Silver	10.0	+/-10.0	U	5.00	10.0	P	12/23/2024	16:58	LB134066
	Sodium	2000	+/-2000	U	1000	2000	P	12/23/2024	16:58	LB134066
	Thallium	40.0	+/-40.0	U	20.0	40.0	P	12/23/2024	16:58	LB134066
	Vanadium	40.0	+/-40.0	U	20.0	40.0	P	12/23/2024	16:58	LB134066
	Zinc	40.0	+/-40.0	U	10.0	40.0	P	12/23/2024	16:58	LB134066

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PREPARATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** P5306

Instrument: CV1

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	LOD mg/Kg	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB165728BL		**SOLID**		**Batch Number:**		**PB165728**		**Prep Date:**	**12/18/2024**	
	Mercury	0.013	<0.013	U	0.011	0.013	CV	12/18/2024	13:52	LB133991

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PREPARATION BLANK SUMMARY

Client: Nobis Group **SDG No.:** P5306

Instrument: P4

Sample ID	Analyte	Result (mg/Kg)	Acceptance Limit	Conc Qual	LOD mg/Kg	CRQL mg/Kg	M	Analysis Date	Analysis Time	Run
PB165698BL		**SOLID**		**Batch Number:**		**PB165698**		**Prep Date:**	**12/17/2024**	
	Aluminum	4.78	<4.78	U	3.83	4.78	P	12/18/2024	16:19	LB134001
	Antimony	2.39	<2.39	U	0.60	2.39	P	12/18/2024	16:19	LB134001
	Arsenic	0.96	<0.96	U	0.77	0.96	P	12/18/2024	16:19	LB134001
	Barium	4.78	<4.78	U	1.20	4.78	P	12/18/2024	16:19	LB134001
	Beryllium	0.29	<0.29	U	0.072	0.29	P	12/18/2024	16:19	LB134001
	Cadmium	0.29	<0.29	U	0.072	0.29	P	12/18/2024	16:19	LB134001
	Calcium	95.7	<95.7	U	23.9	95.7	P	12/18/2024	16:19	LB134001
	Chromium	0.48	<0.48	U	0.12	0.48	P	12/18/2024	16:19	LB134001
	Cobalt	1.44	<1.44	U	0.36	1.44	P	12/18/2024	16:19	LB134001
	Copper	0.96	<0.96	U	0.77	0.96	P	12/18/2024	16:19	LB134001
	Iron	4.78	<4.78	U	3.83	4.78	P	12/18/2024	16:19	LB134001
	Lead	0.57	<0.57	U	0.46	0.57	P	12/18/2024	16:19	LB134001
	Magnesium	95.7	<95.7	U	23.9	95.7	P	12/18/2024	16:19	LB134001
	Manganese	0.96	<0.96	U	0.24	0.96	P	12/18/2024	16:19	LB134001
	Nickel	1.91	<1.91	U	0.48	1.91	P	12/18/2024	16:19	LB134001
	Potassium	95.7	<95.7	U	76.6	95.7	P	12/18/2024	16:19	LB134001
	Selenium	0.96	<0.96	U	0.77	0.96	P	12/18/2024	16:19	LB134001
	Silver	0.48	<0.48	U	0.24	0.48	P	12/18/2024	16:19	LB134001
	Sodium	95.7	<95.7	U	76.6	95.7	P	12/18/2024	16:19	LB134001
	Thallium	1.91	<1.91	U	0.96	1.91	P	12/18/2024	16:19	LB134001
	Vanadium	1.91	<1.91	U	0.96	1.91	P	12/18/2024	16:19	LB134001
	Zinc	1.91	<1.91	U	0.48	1.91	P	12/18/2024	16:19	LB134001

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INTERFERENCE CHECK SAMPLE

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

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	Aluminum	244000	255000	96	216000	294000	12/18/2024	15:11	LB134001
	Antimony	-0.32			-50	50	12/18/2024	15:11	LB134001
	Arsenic	3.28			-20	20	12/18/2024	15:11	LB134001
	Barium	4.52	6.0	75	-94	106	12/18/2024	15:11	LB134001
	Beryllium	1.30			-6	6	12/18/2024	15:11	LB134001
	Cadmium	2.54	1.0	254	-5	7	12/18/2024	15:11	LB134001
	Calcium	230000	245000	94	208000	282000	12/18/2024	15:11	LB134001
	Chromium	57.1	52.0	110	42	62	12/18/2024	15:11	LB134001
	Cobalt	1.68			-30	30	12/18/2024	15:11	LB134001
	Copper	-1.58	2.0	79	-18	22	12/18/2024	15:11	LB134001
	Iron	102000	101000	101	85600	116500	12/18/2024	15:11	LB134001
	Lead	6.94			-12	12	12/18/2024	15:11	LB134001
	Magnesium	251000	255000	98	216000	294000	12/18/2024	15:11	LB134001
	Manganese	5.50	7.0	79	-13	27	12/18/2024	15:11	LB134001
	Nickel	2.14	2.0	107	-38	42	12/18/2024	15:11	LB134001
	Potassium	99.8			0	0	12/18/2024	15:11	LB134001
	Selenium	-11.7			-20	20	12/18/2024	15:11	LB134001
	Silver	-6.57			-10	10	12/18/2024	15:11	LB134001
	Sodium	70.2			0	0	12/18/2024	15:11	LB134001
	Thallium	9.72			-40	40	12/18/2024	15:11	LB134001
	Vanadium	6.43			-40	40	12/18/2024	15:11	LB134001
	Zinc	5.21			-40	40	12/18/2024	15:11	LB134001
ICSAB01	Aluminum	241000	247000	98	209000	285000	12/18/2024	15:23	LB134001
	Antimony	596	618	96	525	711	12/18/2024	15:23	LB134001
	Arsenic	106	104	102	88.4	120	12/18/2024	15:23	LB134001
	Barium	489	537	91	437	637	12/18/2024	15:23	LB134001
	Beryllium	480	495	97	420	570	12/18/2024	15:23	LB134001
	Cadmium	975	972	100	826	1120	12/18/2024	15:23	LB134001
	Calcium	228000	235000	97	199000	271000	12/18/2024	15:23	LB134001
	Chromium	560	542	103	460	624	12/18/2024	15:23	LB134001
	Cobalt	492	476	103	404	548	12/18/2024	15:23	LB134001
	Copper	466	511	91	434	588	12/18/2024	15:23	LB134001
	Iron	98600	99300	99	84400	114500	12/18/2024	15:23	LB134001
	Lead	52.3	49.0	107	37	61	12/18/2024	15:23	LB134001
	Magnesium	249000	248000	100	210000	286000	12/18/2024	15:23	LB134001
	Manganese	480	507	95	430	584	12/18/2024	15:23	LB134001
	Nickel	966	954	101	810	1100	12/18/2024	15:23	LB134001
	Potassium	66.4			0	0	12/18/2024	15:23	LB134001
	Selenium	31.2	46.0	68	26	66	12/18/2024	15:23	LB134001
	Silver	188	201	94	170	232	12/18/2024	15:23	LB134001
	Sodium	66.1			0	0	12/18/2024	15:23	LB134001
	Thallium	94.3	108	87	68	148	12/18/2024	15:23	LB134001

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Metals
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INTERFERENCE CHECK SAMPLE

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

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
ICSAB01	Vanadium	474	491	96	417	565	12/18/2024	15:23	LB134001
	Zinc	1050	952	110	809	1095	12/18/2024	15:23	LB134001
ICSA01	Aluminum	244000	255000	96	216000	294000	12/23/2024	11:55	LB134066
	Antimony	-1.86			-50	50	12/23/2024	11:55	LB134066
	Arsenic	-0.83			-20	20	12/23/2024	11:55	LB134066
	Barium	2.71	6.0	45	-94	106	12/23/2024	11:55	LB134066
	Beryllium	1.22			-6	6	12/23/2024	11:55	LB134066
	Cadmium	5.83	1.0	583	-5	7	12/23/2024	11:55	LB134066
	Calcium	227000	245000	93	208000	282000	12/23/2024	11:55	LB134066
	Chromium	58.0	52.0	112	42	62	12/23/2024	11:55	LB134066
	Cobalt	1.84			-30	30	12/23/2024	11:55	LB134066
	Copper	16.1	2.0	805	-18	22	12/23/2024	11:55	LB134066
	Iron	104000	101000	103	85600	116500	12/23/2024	11:55	LB134066
	Lead	7.19			-12	12	12/23/2024	11:55	LB134066
	Magnesium	247000	255000	97	216000	294000	12/23/2024	11:55	LB134066
	Manganese	4.79	7.0	68	-13	27	12/23/2024	11:55	LB134066
	Nickel	2.98	2.0	149	-38	42	12/23/2024	11:55	LB134066
	Potassium	30.6			0	0	12/23/2024	11:55	LB134066
	Selenium	-12.8			-20	20	12/23/2024	11:55	LB134066
	Silver	3.28			-10	10	12/23/2024	11:55	LB134066
	Sodium	19.7			0	0	12/23/2024	11:55	LB134066
	Thallium	10.1			-40	40	12/23/2024	11:55	LB134066
	Vanadium	6.09			-40	40	12/23/2024	11:55	LB134066
	Zinc	7.82			-40	40	12/23/2024	11:55	LB134066
ICSAB01	Aluminum	241000	247000	98	209000	285000	12/23/2024	12:06	LB134066
	Antimony	641	618	104	525	711	12/23/2024	12:06	LB134066
	Arsenic	116	104	112	88.4	120	12/23/2024	12:06	LB134066
	Barium	486	537	90	437	637	12/23/2024	12:06	LB134066
	Beryllium	477	495	96	420	570	12/23/2024	12:06	LB134066
	Cadmium	1040	972	107	826	1120	12/23/2024	12:06	LB134066
	Calcium	225000	235000	96	199000	271000	12/23/2024	12:06	LB134066
	Chromium	581	542	107	460	624	12/23/2024	12:06	LB134066
	Cobalt	526	476	110	404	548	12/23/2024	12:06	LB134066
	Copper	565	511	111	434	588	12/23/2024	12:06	LB134066
	Iron	102000	99300	103	84400	114500	12/23/2024	12:06	LB134066
	Lead	55.4	49.0	113	37	61	12/23/2024	12:06	LB134066
	Magnesium	244000	248000	98	210000	286000	12/23/2024	12:06	LB134066
	Manganese	478	507	94	430	584	12/23/2024	12:06	LB134066
	Nickel	1040	954	109	810	1100	12/23/2024	12:06	LB134066
	Potassium	-25.6			0	0	12/23/2024	12:06	LB134066
	Selenium	37.4	46.0	81	26	66	12/23/2024	12:06	LB134066
	Silver	203	201	101	170	232	12/23/2024	12:06	LB134066

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Metals
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INTERFERENCE CHECK SAMPLE

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

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
ICSAB01	Sodium	9.80			0	0	12/23/2024	12:06	LB134066
	Thallium	112	108	104	68	148	12/23/2024	12:06	LB134066
	Vanadium	478	491	97	417	565	12/23/2024	12:06	LB134066
	Zinc	1070	952	112	809	1095	12/23/2024	12:06	LB134066

METAL QC DATA

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metals
- 5a -
MATRIX SPIKE SUMMARY

client: Nobis Group **level:** low **sdg no.:** P5306

contract: NOBI03 **lab code:** CHEM **case no.:** P5306 **sas no.:** P5306

matrix: Solid **sample id:** P5301-03 **client id:** HR-04-121624MS

Percent Solids for Sample: 89.4 **Spiked ID:** P5301-03MS **Percent Solids for Spike Sample:** 89.4

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	80 - 124	0.25		0.035		0.28	77	N	CV

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metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: Nobis Group **level:** low **sdg no.:** P5306

contract: NOBI03 **lab code:** CHEM **case no.:** P5306 **sas no.:** P5306

matrix: Solid **sample id:** P5301-03 **client id:** HR-04-121624MSD

Percent Solids for Sample: 89.4 **Spiked ID:** P5301-03MSD **Percent Solids for Spike Sample:** 89.4

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	80 - 124	0.24		0.035		0.28	74	N	CV

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metals
- 5a -
MATRIX SPIKE SUMMARY

client: Nobis Group **level:** low **sdg no.:** P5306

contract: NOBI03 **lab code:** CHEM **case no.:** P5306 **sas no.:** P5306

matrix: Solid **sample id:** P5306-17 **client id:** OU4-VSL-06R-121224MS

Percent Solids for Sample: 91.7 **Spiked ID:** P5306-17MS **Percent Solids for Spike Sample:** 91.7

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	74 - 119	6950		6170		100	778		P
Antimony	mg/Kg	79 - 114	53.7		16.7		40.0	92		P
Arsenic	mg/Kg	82 - 111	69.3		30.7		40.0	97		P
Barium	mg/Kg	83 - 113	24.3		15.0		10.0	93		P
Beryllium	mg/Kg	83 - 113	13.6		6.20		10.0	74	N	P
Cadmium	mg/Kg	82 - 113	20.5		10.4		10.0	101		P
Calcium	mg/Kg	81 - 116	5590		5020		50.0	1131		P
Chromium	mg/Kg	85 - 113	31.7		14.8		20.0	84	N	P
Cobalt	mg/Kg	85 - 112	34.3		22.8		10.0	116	N	P
Copper	mg/Kg	81 - 117	78.6		61.2		15.0	116		P
Iron	mg/Kg	81 - 118	23100		21100		150	1325		P
Lead	mg/Kg	81 - 112	90.6		42.2		50.0	97		P
Magnesium	mg/Kg	78 - 115	4540		4040		100	491		P
Manganese	mg/Kg	84 - 114	192		168		10.0	240		P
Nickel	mg/Kg	83 - 113	55.1		29.0		25.0	105		P
Potassium	mg/Kg	81 - 116	1030		512		500	103		P
Selenium	mg/Kg	78 - 111	160		69.7		100	91		P
Silver	mg/Kg	82 - 112	7.15		3.68		3.8	91		P
Sodium	mg/Kg	83 - 118	1590		1370		150	141		P
Thallium	mg/Kg	83 - 111	182		81.5		100	101		P
Vanadium	mg/Kg	82 - 114	93.8		74.6		15.0	128		P
Zinc	mg/Kg	82 - 113	42.3		31.8		10.0	104		P

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metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: Nobis Group **level:** low **sdg no.:** P5306

contract: NOBI03 **lab code:** CHEM **case no.:** P5306 **sas no.:** P5306

matrix: Solid **sample id:** P5306-17 **client id:** OU4-VSL-06R-121224MSD

Percent Solids for Sample: 91.7 **Spiked ID:** P5306-17MSD **Percent Solids for Spike Sample:** 91.7

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	mg/Kg	74 - 119	7330		6170		100	1156		P
Antimony	mg/Kg	79 - 114	53.2		16.7		40.6	90		P
Arsenic	mg/Kg	82 - 111	69.6		30.7		40.6	96		P
Barium	mg/Kg	83 - 113	25.0		15.0		10.1	98		P
Beryllium	mg/Kg	83 - 113	14.1		6.20		10.1	78	N	P
Cadmium	mg/Kg	82 - 113	21.1		10.4		10.1	106		P
Calcium	mg/Kg	81 - 116	5840		5020		50.7	1616		P
Chromium	mg/Kg	85 - 113	32.4		14.8		20.3	86		P
Cobalt	mg/Kg	85 - 112	35.3		22.8		10.1	124	N	P
Copper	mg/Kg	81 - 117	80.7		61.2		15.2	128		P
Iron	mg/Kg	81 - 118	23500		21100		150	1554		P
Lead	mg/Kg	81 - 112	93.0		42.2		50.7	100		P
Magnesium	mg/Kg	78 - 115	4700		4040		100	655		P
Manganese	mg/Kg	84 - 114	198		168		10.1	296		P
Nickel	mg/Kg	83 - 113	56.5		29.0		25.4	108		P
Potassium	mg/Kg	81 - 116	1030		512		510	101		P
Selenium	mg/Kg	78 - 111	161		69.7		100	92		P
Silver	mg/Kg	82 - 112	7.22		3.68		3.8	93		P
Sodium	mg/Kg	83 - 118	1600		1370		150	151		P
Thallium	mg/Kg	83 - 111	185		81.5		100	104		P
Vanadium	mg/Kg	82 - 114	97.1		74.6		15.2	148		P
Zinc	mg/Kg	82 - 113	43.0		31.8		10.1	111		P

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Metals
- 5b -
POST DIGEST SPIKE SUMMARY

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

Matrix: Solid **Level:** LOW **Client ID:** HR-04-121624A

Sample ID: P5301-03 **Spiked ID:** P5301-03A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Mercury	mg/Kg	80 - 124	0.29		0.035		0.30	85		CV

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Metals
- 5b -
POST DIGEST SPIKE SUMMARY

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

Matrix: Solid **Level:** LOW **Client ID:** OU4-VSL-06R-121224A

Sample ID: P5306-17 **Spiked ID:** P5306-17A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Beryllium	mg/Kg	83 - 113	12.5		6.20		9.00	70		P
Chromium	mg/Kg	85 - 113	28.9		14.8		18.1	78		P
Cobalt	mg/Kg	85 - 112	31.8		22.8		9.00	101		P

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Metals

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DUPLICATE SAMPLE SUMMARY

Client: Nobis Group **Level:** LOW **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

Matrix: Solid **Sample ID:** P5301-03 **Client ID:** HR-04-121624DUP

Percent Solids for Sample: 89.4 **Duplicate ID** P5301-03DUP **Percent Solids for Spike Sample:** 89.4

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20	0.035		0.031		12		CV

"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: Nobis Group **Level:** LOW **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

Matrix: Solid **Sample ID:** P5301-03MS **Client ID:** HR-04-121624MSD

Percent Solids for Sample: 89.4 **Duplicate ID** P5301-03MSD **Percent Solids for Spike Sample:** 89.4

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Mercury	mg/Kg	20	0.25		0.24		3		CV

"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: Nobis Group **Level:** LOW **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

Matrix: Solid **Sample ID:** P5306-17 **Client ID:** OU4-VSL-06R-121224DUP

Percent Solids for Sample: 91.7 **Duplicate ID** P5306-17DUP **Percent Solids for Spike Sample:** 91.7

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	6170		6870		11		P
Antimony	mg/Kg	20	16.7		18.2		9		P
Arsenic	mg/Kg	20	30.7		33.6		9		P
Barium	mg/Kg	20	15.0		16.6		10		P
Beryllium	mg/Kg	20	6.20		6.84		10		P
Cadmium	mg/Kg	20	10.4		11.4		9		P
Calcium	mg/Kg	20	5020		5570		10		P
Chromium	mg/Kg	20	14.8		16.5		11		P
Cobalt	mg/Kg	20	22.8		25.0		9		P
Copper	mg/Kg	20	61.2		66.9		9		P
Iron	mg/Kg	20	21100		23400		10		P
Lead	mg/Kg	20	42.2		46.2		9		P
Magnesium	mg/Kg	20	4040		4470		10		P
Manganese	mg/Kg	20	168		186		10		P
Nickel	mg/Kg	20	29.0		31.8		9		P
Potassium	mg/Kg	20	512		566		10		P
Selenium	mg/Kg	20	69.7		75.4		8		P
Silver	mg/Kg	20	3.68		4.06		10		P
Sodium	mg/Kg	20	1370		1510		10		P
Thallium	mg/Kg	20	81.5		88.6		8		P
Vanadium	mg/Kg	20	74.6		82.9		11		P
Zinc	mg/Kg	20	31.8		35.5		11		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: Nobis Group **Level:** LOW **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

Matrix: Solid **Sample ID:** P5306-17MS **Client ID:** OU4-VSL-06R-121224MSD

Percent Solids for Sample: 91.7 **Duplicate ID** P5306-17MSD **Percent Solids for Spike Sample:** 91.7

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	mg/Kg	20	6950		7330		5		P
Antimony	mg/Kg	20	53.7		53.2		1		P
Arsenic	mg/Kg	20	69.3		69.6		0		P
Barium	mg/Kg	20	24.3		25.0		3		P
Beryllium	mg/Kg	20	13.6		14.1		4		P
Cadmium	mg/Kg	20	20.5		21.1		3		P
Calcium	mg/Kg	20	5590		5840		4		P
Chromium	mg/Kg	20	31.7		32.4		2		P
Cobalt	mg/Kg	20	34.3		35.3		3		P
Copper	mg/Kg	20	78.6		80.7		3		P
Iron	mg/Kg	20	23100		23500		2		P
Lead	mg/Kg	20	90.6		93.0		3		P
Magnesium	mg/Kg	20	4540		4700		3		P
Manganese	mg/Kg	20	192		198		3		P
Nickel	mg/Kg	20	55.1		56.5		3		P
Potassium	mg/Kg	20	1030		1030		0		P
Selenium	mg/Kg	20	160		161		1		P
Silver	mg/Kg	20	7.15		7.22		1		P
Sodium	mg/Kg	20	1590		1600		1		P
Thallium	mg/Kg	20	182		185		2		P
Vanadium	mg/Kg	20	93.8		97.1		3		P
Zinc	mg/Kg	20	42.3		43.0		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: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB165698BS							
Aluminum	mg/Kg	95.7	91.4		96	74 - 119	P
Antimony	mg/Kg	38.3	36.8		96	79 - 114	P
Arsenic	mg/Kg	38.3	37.6		98	82 - 111	P
Barium	mg/Kg	9.6	9.05		94	83 - 113	P
Beryllium	mg/Kg	9.6	9.25		96	83 - 113	P
Cadmium	mg/Kg	9.6	9.05		94	82 - 113	P
Calcium	mg/Kg	47.8	47.6	J	100	81 - 116	P
Chromium	mg/Kg	19.1	19.4		102	85 - 113	P
Cobalt	mg/Kg	9.6	9.19		96	85 - 112	P
Copper	mg/Kg	14.4	14.7		102	81 - 117	P
Iron	mg/Kg	140	144		103	81 - 118	P
Lead	mg/Kg	47.8	45.7		96	81 - 112	P
Magnesium	mg/Kg	95.7	90.9	J	95	78 - 115	P
Manganese	mg/Kg	9.6	9.56		100	84 - 114	P
Nickel	mg/Kg	23.9	23.1		97	83 - 113	P
Potassium	mg/Kg	480	464		97	81 - 116	P
Selenium	mg/Kg	95.7	92.5		97	78 - 111	P
Silver	mg/Kg	3.6	3.68		102	82 - 112	P
Sodium	mg/Kg	140	146		104	83 - 118	P
Thallium	mg/Kg	95.7	93.9		98	83 - 111	P
Vanadium	mg/Kg	14.4	13.8		96	82 - 114	P
Zinc	mg/Kg	9.6	9.90		103	82 - 113	P

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LABORATORY CONTROL SAMPLE SUMMARY

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB165728BS							
Mercury	mg/Kg	0.26	0.22		86	80 - 124	CV

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

HR-04-121624L

Lab Name: Chemtech Consulting Group **Contract:** NOBI03

Lab Code: CHEM **Lb No.:** lb133991 **Lab Sample ID :** P5301-03L **SDG No.:** P5306

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

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Mercury	0.035		0.075	U	100.0		CV

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Metals

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ICP SERIAL DILUTIONS

SAMPLE NO.

OU4-VSL-06R-121224L

Lab Name: Chemtech Consulting Group **Contract:** NOBI03

Lab Code: CHEM **Lb No.:** lb134066 **Lab Sample ID :** P5306-17L **SDG No.:** P5306

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

Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	M
Aluminum	6170		7030		14		P
Antimony	16.7		18.7		11		P
Arsenic	30.7		34.5		12		P
Barium	15.0		15.8	J	5		P
Beryllium	6.20		7.43		20		P
Cadmium	10.4		9.63		7		P
Calcium	5020		5940		18		P
Chromium	14.8		18.0		22		P
Cobalt	22.8		22.7		0		P
Copper	61.2		75.2		23		P
Iron	21100		25500		21		P
Lead	42.2		43.7		4		P
Magnesium	4040		4670		16		P
Manganese	168		201		19		P
Nickel	29.0		29.3		1		P
Potassium	512		582		14		P
Selenium	69.7		81.5		17		P
Silver	3.68		4.48		22		P
Sodium	1370		1410		3		P
Thallium	81.5		87.8		8		P
Vanadium	74.6		87.7		18		P
Zinc	31.8		37.1		17		P

METAL PREPARATION & INSTRUMENT DATA

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Metals
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ICP INTERELEMENT CORRECTION FACTORS

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

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
Aluminum	396.100	0.0000000	-0.0002060	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
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
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000930	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	-0.0075970	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0007850	0.0000000	0.0000000
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	-0.0000920	0.0000000	0.0000380	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	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
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Zinc	213.800	0.0000000	0.0000000	0.0001050	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

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
Aluminum	396.100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
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
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0002870
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0000000	0.0009530
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	-0.0039600
Lead	220.353	0.0000000	0.0003170	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	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
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0054900
Vanadium	292.402	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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ICP INTERELEMENT CORRECTION FACTORS

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

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
Aluminum	396.100	0.0000000	0.0000000	0.0000590	0.0000000	0.0396900
Antimony	206.833	0.0122000	0.0000000	0.0000000	0.0000000	0.0000000
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
Beryllium	234.861	0.0000000	0.0000000	0.0000000	-0.0000710	-0.0003400
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000070	0.0002200	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	-0.0007860
Copper	224.700	0.0000000	0.0000000	0.0000000	0.0006510	0.0020500
Iron	240.488	0.0000000	0.0000000	0.0000730	0.0000000	-0.0015250
Lead	220.353	0.0000000	0.0000000	0.0000000	0.0001400	-0.0008600
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	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
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0017400	-0.0100400
Vanadium	292.402	-0.0025100	0.0000000	0.0000000	0.0000000	-0.0072000
Zinc	213.800	0.0000000	0.0009010	0.0000000	0.0000000	0.0000000

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ICP INTERELEMENT CORRECTION FACTORS

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

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
Aluminum	396.100	0.0000000	0.0000000	0.0012800	0.0000000	0.0000000
Antimony	206.833	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
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
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cobalt	228.616	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	-0.0047000	0.0036100	0.0000000	0.0000000
Iron	240.488	0.0000000	-0.0017000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	0.0006580	0.0000000	0.0000000	0.0001290
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	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
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.402	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: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Case No.:** P5306 **SAS No.:** P5306

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
Aluminum	396.100	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.833	-0.0035600	-0.0007970	0.0000000	-0.0018900	0.0000000
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
Beryllium	234.861	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	226.502	0.0000000	0.0000630	0.0001280	0.0000000	0.0000000
Calcium	373.690	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.716	0.0000000	0.0000000	0.0000000	0.0001110	0.0000000
Cobalt	228.616	0.0000000	0.0018800	0.0000000	0.0000000	0.0000000
Copper	224.700	0.0000000	0.0003840	0.0000000	0.0000000	0.0000000
Iron	240.488	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Lead	220.353	0.0000000	-0.0003610	0.0000000	0.0000000	0.0000000
Magnesium	279.079	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.610	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.604	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.490	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
Sodium	589.592	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.856	0.0000000	-0.0039700	0.0000000	-0.0115600	0.0000000
Vanadium	292.402	0.0000000	0.0005320	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: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Method:**

Case No.: P5306 **SAS No.:** P5306

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB165698**						
P5306-01	OU4-VSL-07-121224	SAM	SOLID	12/17/2024	2.20	100.0	90.80
P5306-03	OU4-VSL-08-121224	SAM	SOLID	12/17/2024	2.06	100.0	90.80
P5306-05	OU4-VSL-09-121224	SAM	SOLID	12/17/2024	2.35	100.0	90.10
P5306-07	OU4-VSL-10-121224	SAM	SOLID	12/17/2024	2.21	100.0	95.00
P5306-09	OU4-VSL-11-121224	SAM	SOLID	12/17/2024	2.09	100.0	93.60
P5306-11	OU4-VSL-12-121224	SAM	SOLID	12/17/2024	2.44	100.0	90.80
P5306-13	OU4-VSL-13-121224	SAM	SOLID	12/17/2024	2.37	100.0	90.00
P5306-15	OU4-VSL-14-121224	SAM	SOLID	12/17/2024	2.06	100.0	95.90
P5306-17	OU4-VSL-06R-121224	SAM	SOLID	12/17/2024	2.41	100.0	91.70
P5306-17DUP	OU4-VSL-06R-121224DUP	DUP	SOLID	12/17/2024	2.17	100.0	91.70
P5306-17MS	OU4-VSL-06R-121224MS	MS	SOLID	12/17/2024	2.18	100.0	91.70
P5306-17MSD	OU4-VSL-06R-121224MSD	MSD	SOLID	12/17/2024	2.15	100.0	91.70
PB165698BL	PB165698BL	MB	SOLID	12/17/2024	2.09	100.0	100.00
PB165698BS	PB165698BS	LCS	SOLID	12/17/2024	2.09	100.0	100.00

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SAMPLE PREPARATION SUMMARY

Client: Nobis Group **SDG No.:** P5306

Contract: NOBI03 **Lab Code:** CHEM **Method:**

Case No.: P5306 **SAS No.:** P5306

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(g)	Final Sample Volume (mL)	Percent Solids
Batch Number:	**PB165728**						
P5301-03DUP	HR-04-121624DUP	DUP	SOLID	12/18/2024	0.51	35.0	89.40
P5301-03MS	HR-04-121624MS	MS	SOLID	12/18/2024	0.55	35.0	89.40
P5301-03MSD	HR-04-121624MSD	MSD	SOLID	12/18/2024	0.56	35.0	89.40
P5306-01	OU4-VSL-07-121224	SAM	SOLID	12/18/2024	0.59	35.0	90.80
P5306-03	OU4-VSL-08-121224	SAM	SOLID	12/18/2024	0.52	35.0	90.80
P5306-05	OU4-VSL-09-121224	SAM	SOLID	12/18/2024	0.57	35.0	90.10
P5306-07	OU4-VSL-10-121224	SAM	SOLID	12/18/2024	0.52	35.0	95.00
P5306-09	OU4-VSL-11-121224	SAM	SOLID	12/18/2024	0.55	35.0	93.60
P5306-11	OU4-VSL-12-121224	SAM	SOLID	12/18/2024	0.57	35.0	90.80
P5306-13	OU4-VSL-13-121224	SAM	SOLID	12/18/2024	0.58	35.0	90.00
P5306-15	OU4-VSL-14-121224	SAM	SOLID	12/18/2024	0.59	35.0	95.90
PB165728BL	PB165728BL	MB	SOLID	12/18/2024	0.52	35.0	100.00
PB165728BS	PB165728BS	LCS	SOLID	12/18/2024	0.54	35.0	100.00

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ANALYSIS RUN LOG

Client: Nobis Group **Contract:** NOBI03

Lab code: CHEM **Case no.:** P5306 **Sas no.:** P5306 **Sdg no.:** P5306

Instrument id number: **Method:** **Run number:** LB133991

Start date: 12/18/2024 **End date:** 12/18/2024

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1319	HG
S0.2	S0.2	1	1322	HG
S2.5	S2.5	1	1324	HG
S5	S5	1	1326	HG
S7.5	S7.5	1	1328	HG
S10	S10	1	1331	HG
ICV24	ICV24	1	1336	HG
ICB24	ICB24	1	1339	HG
CCV42	CCV42	1	1341	HG
CCB42	CCB42	1	1343	HG
CRA	CRA	1	1345	HG
PB165728BL	PB165728BL	1	1352	HG
PB165728BS	PB165728BS	1	1355	HG
CCV43	CCV43	1	1408	HG
CCB43	CCB43	1	1411	HG
P5301-03DUP	HR-04-121624DUP	1	1425	HG
P5301-03MS	HR-04-121624MS	1	1427	HG
P5301-03MSD	HR-04-121624MSD	1	1429	HG
P5306-01	OU4-VSL-07-121224	1	1432	HG
P5306-03	OU4-VSL-08-121224	1	1434	HG
P5306-05	OU4-VSL-09-121224	1	1436	HG
P5306-07	OU4-VSL-10-121224	1	1438	HG
P5306-09	OU4-VSL-11-121224	1	1441	HG
P5306-11	OU4-VSL-12-121224	1	1443	HG
CCV44	CCV44	1	1445	HG
CCB44	CCB44	1	1448	HG
P5306-13	OU4-VSL-13-121224	1	1450	HG
P5306-15	OU4-VSL-14-121224	1	1452	HG
P5301-03L	HR-04-121624L	5	1503	HG
P5301-03A	HR-04-121624A	1	1505	HG
CCV45	CCV45	1	1507	HG
CCB45	CCB45	1	1509	HG

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ANALYSIS RUN LOG

Client: Nobis Group **Contract:** NOBI03

Lab code: CHEM **Case no.:** P5306 **Sas no.:** P5306 **Sdg no.:** P5306

Instrument id number: **Method:** **Run number:** LB134001

Start date: 12/18/2024 **End date:** 12/18/2024

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1414	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
S1	S1	1	1419	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
S2	S2	1	1423	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
S3	S3	1	1427	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
S4	S4	1	1432	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
S5	S5	1	1436	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
ICV01	ICV01	1	1440	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
LLICV01	LLICV01	1	1458	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
ICB01	ICB01	1	1503	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
CRI01	CRI01	1	1507	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
ICSA01	ICSA01	1	1511	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
ICSAB01	ICSAB01	1	1523	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
CCV01	CCV01	1	1527	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
CCB01	CCB01	1	1531	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
CCV02	CCV02	1	1610	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
CCB02	CCB02	1	1614	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
PB165698BL	PB165698BL	1	1619	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
PB165698BS	PB165698BS	1	1624	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P5306-01	OU4-VSL-07-121224	1	1636	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P5306-03	OU4-VSL-08-121224	1	1640	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P5306-05	OU4-VSL-09-121224	1	1644	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P5306-07	OU4-VSL-10-121224	1	1649	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P5306-09	OU4-VSL-11-121224	1	1653	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P5306-11	OU4-VSL-12-121224	1	1657	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV03	CCV03	1	1701	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
CCB03	CCB03	1	1705	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
P5306-13	OU4-VSL-13-121224	1	1710	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P5306-15	OU4-VSL-14-121224	1	1714	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV04	CCV04	1	1743	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
CCB04	CCB04	1	1747	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
CCV05	CCV05	1	1833	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
CCB05	CCB05	1	1837	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn

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

metals
- 14 -
ANALYSIS RUN LOG

Client: Nobis Group **Contract:** NOBI03

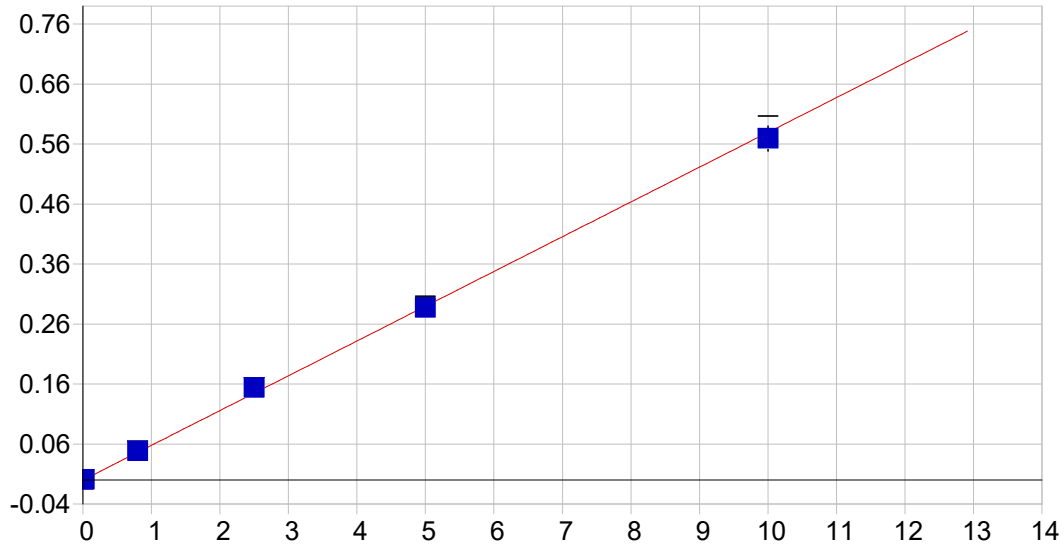
Lab code: CHEM **Case no.:** P5306 **Sas no.:** P5306 **Sdg no.:** P5306

Instrument id number: **Method:** **Run number:** LB134066

Start date: 12/23/2024 **End date:** 12/23/2024

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1051	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
S1	S1	1	1056	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
S2	S2	1	1100	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
S3	S3	1	1104	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
S4	S4	1	1109	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
S5	S5	1	1113	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
ICV01	ICV01	1	1117	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
LLICV01	LLICV01	1	1137	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
ICB01	ICB01	1	1144	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
CRI01	CRI01	1	1151	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
ICSA01	ICSA01	1	1155	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
ICSAB01	ICSAB01	1	1206	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
CCV01	CCV01	1	1231	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
CCB01	CCB01	1	1235	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
CCV02	CCV02	1	1343	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
CCB02	CCB02	1	1347	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
CCV03	CCV03	1	1407	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
CCB03	CCB03	1	1411	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
P5306-17	OU4-VSL-06R-121224	1	1441	V
P5306-17DUP	OU4-VSL-06R-121224DUP	1	1445	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P5306-17L	OU4-VSL-06R-121224L	5	1449	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P5306-17MS	OU4-VSL-06R-121224MS	1	1453	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
CCV04	CCV04	1	1506	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
CCB04	CCB04	1	1510	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
P5306-17MSD	OU4-VSL-06R-121224MSD	1	1514	Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,V,Zn
P5306-17A	OU4-VSL-06R-121224A	1	1518	Be,Co,Cr
CCV05	CCV05	1	1606	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
CCB05	CCB05	1	1610	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
CCV06	CCV06	1	1654	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn
CCB06	CCB06	1	1658	V,Ag,Al,As,Ba,Be,Ca,Cd,Co,Cr,Cu,Fe,K,Mg,Mn,Na,Ni,Pb,Sb,Se,Tl,Zn

METAL
RAW DATA

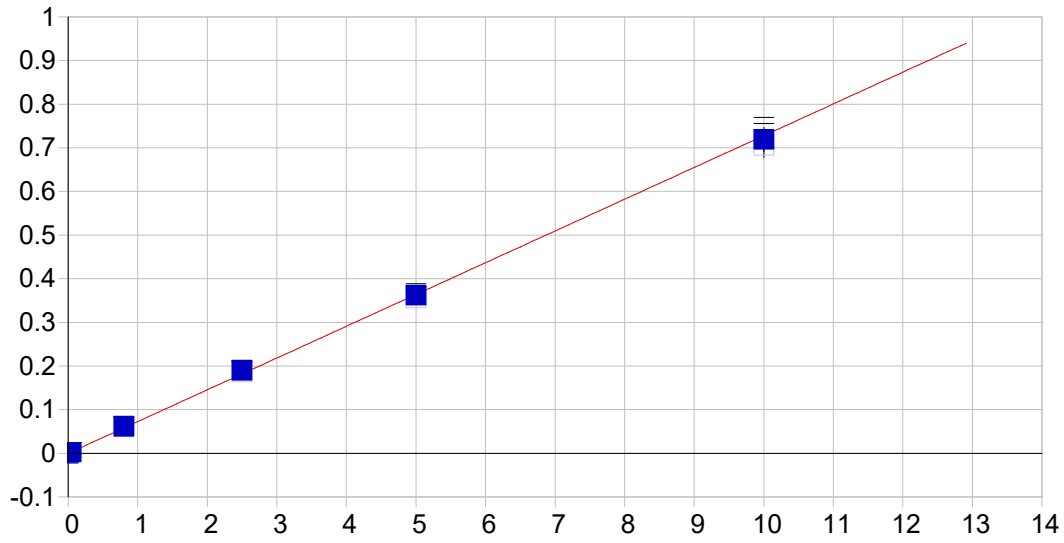


As 189.042 {479}

Date of Fit:	12/18/2024 14:40:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000176	Re-Slope:	1.000000
A1 (Gain):	0.057958	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999564	Status:	OK.
Std Error of Est:	0.000040		
Predicted MDL:	0.002406		
Predicted MQL:	0.008019		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00018	.000	1
S1	.02000	.02184	.002	9.19	.00108	.000	1
S3	2.5000	2.6600	.160	6.40	.15384	.000	1
S4	5.0000	4.9653	-.035	-.693	.28729	.003	1
S5	10.000	9.8293	-.171	-1.71	.56889	.021	1
S2	.80000	.84357	.044	5.45	.04867	.000	1

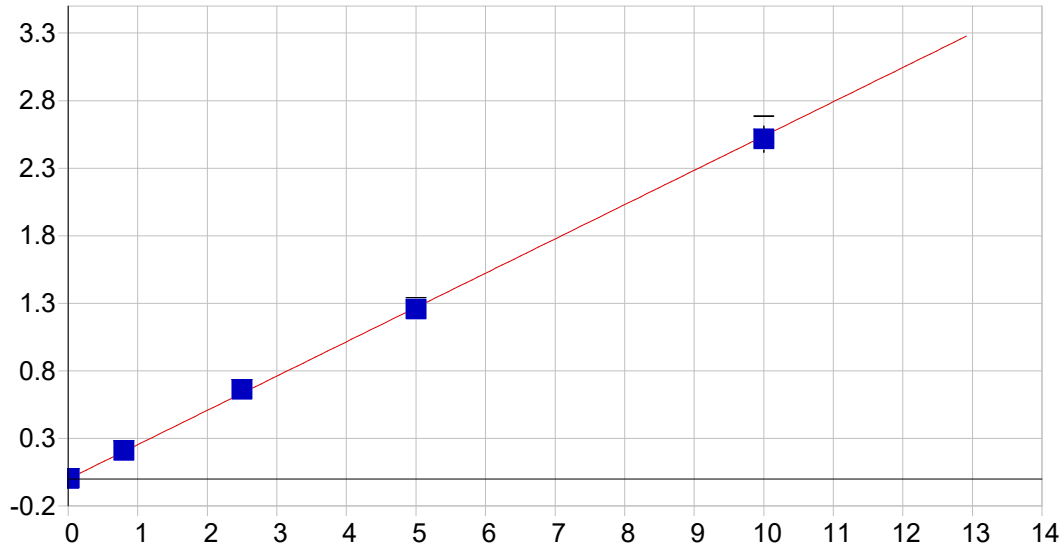


Tl 190.856 {477}

Date of Fit:	12/18/2024 14:40:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000123	Re-Slope:	1.000000
A1 (Gain):	0.072790	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999761	Status:	OK.
Std Error of Est:	0.000052		
Predicted MDL:	0.001646		
Predicted MQL:	0.005487		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00012	.000	1
S1	.04000	.04089	.001	2.24	.00267	.000	1
S3	2.5000	2.6041	.104	4.16	.18608	.001	1
S4	5.0000	4.9739	-.026	-.521	.35522	.004	1
S5	10.000	9.8769	-.123	-1.23	.70540	.028	1
S2	.80000	.84427	.044	5.53	.06026	.000	1

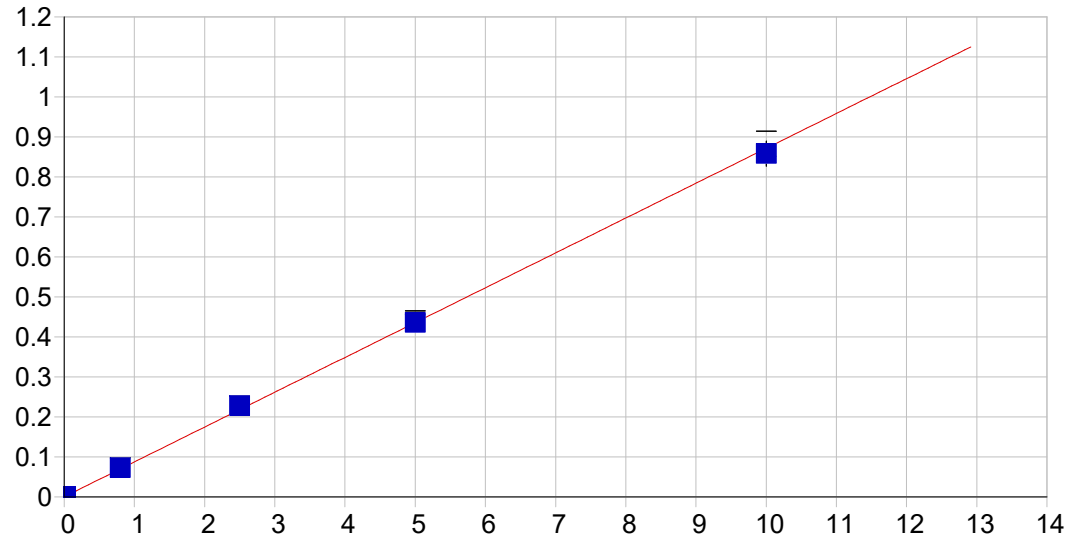


Pb 220.353 {453}

Date of Fit:	12/18/2024 14:40:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000321	Re-Slope:	1.000000
A1 (Gain):	0.253803	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999807	Status:	OK.
Std Error of Est:	0.000090		
Predicted MDL:	0.000988		
Predicted MQL:	0.003294		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00032	.000	1
S1	.01200	.01170	-.000	-2.47	.00259	.000	1
S3	2.5000	2.6094	.109	4.37	.66125	.001	1
S4	5.0000	4.9490	-.051	-1.02	1.2543	.014	1
S5	10.000	9.9138	-.086	-.862	2.5131	.097	1
S2	.80000	.82813	.028	3.52	.20964	.000	1

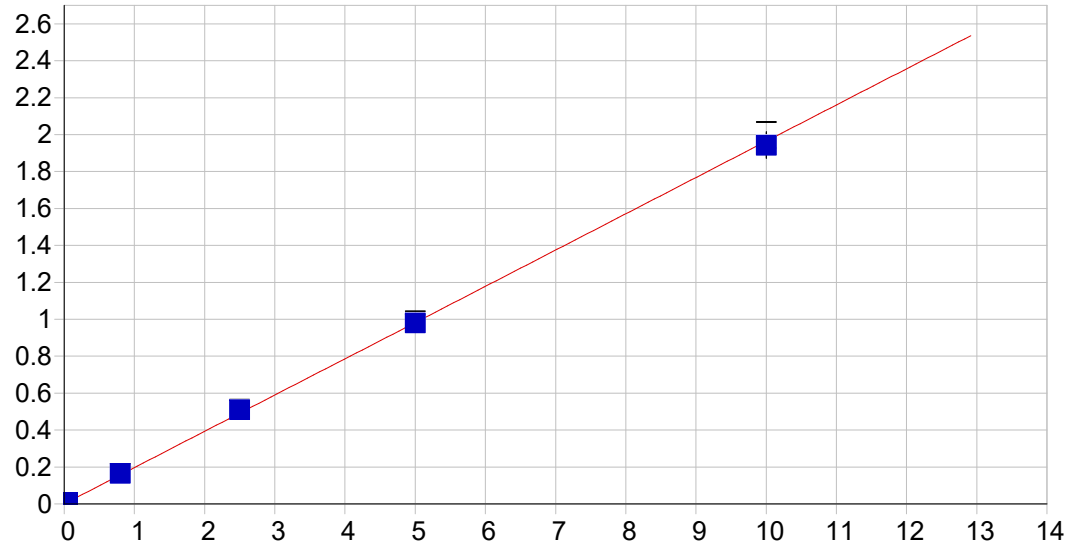


Se 196.090 {472}

Date of Fit:	12/18/2024 14:40:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000330	Re-Slope:	1.000000
A1 (Gain):	0.087101	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999759	Status:	OK.
Std Error of Est:	0.000045		
Predicted MDL:	0.002101		
Predicted MQL:	0.007004		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00033	.000	1
S1	.02000	.02211	.002	10.5	.00226	.000	1
S3	2.5000	2.6131	.113	4.52	.22787	.000	1
S4	5.0000	5.0023	.002	.046	.43592	.004	1
S5	10.000	9.8507	-.149	-1.49	.85810	.032	1
S2	.80000	.83182	.032	3.98	.07276	.000	1

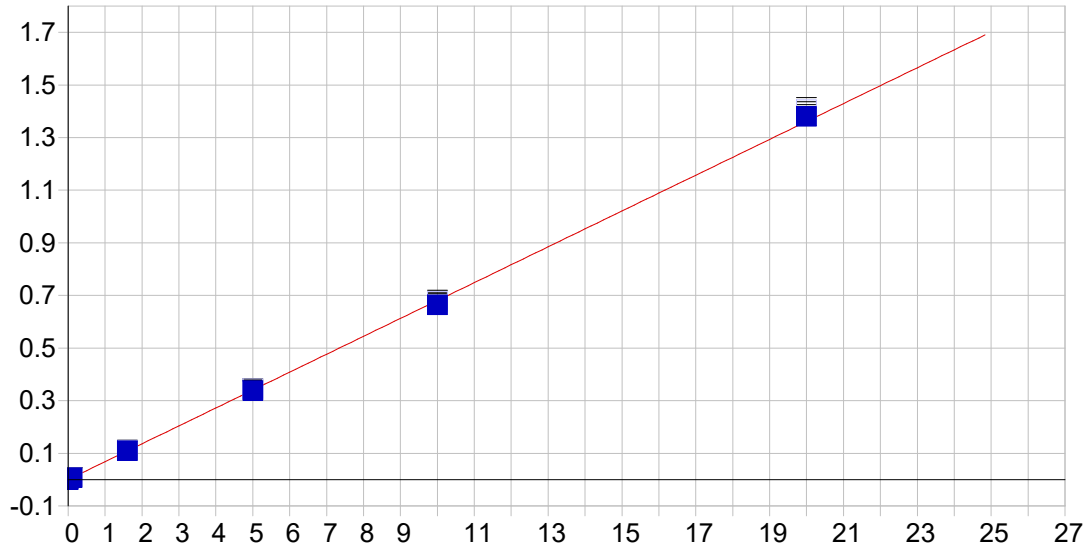


Sb 206.833 {463}

Date of Fit:	12/18/2024 14:40:24	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000309	Re-Slope:	1.000000
A1 (Gain):	0.196352	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999822	Status:	OK.
Std Error of Est:	0.000138		
Predicted MDL:	0.001148		
Predicted MQL:	0.003828		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00031	.000	1
S1	.05000	.05138	.001	2.76	.01042	.000	1
S3	2.5000	2.5963	.096	3.85	.51143	.001	1
S4	5.0000	4.9846	-.015	-.309	.98171	.009	1
S5	10.000	9.8840	-.116	-1.16	1.9464	.071	1
S2	.80000	.83373	.034	4.22	.16444	.000	1

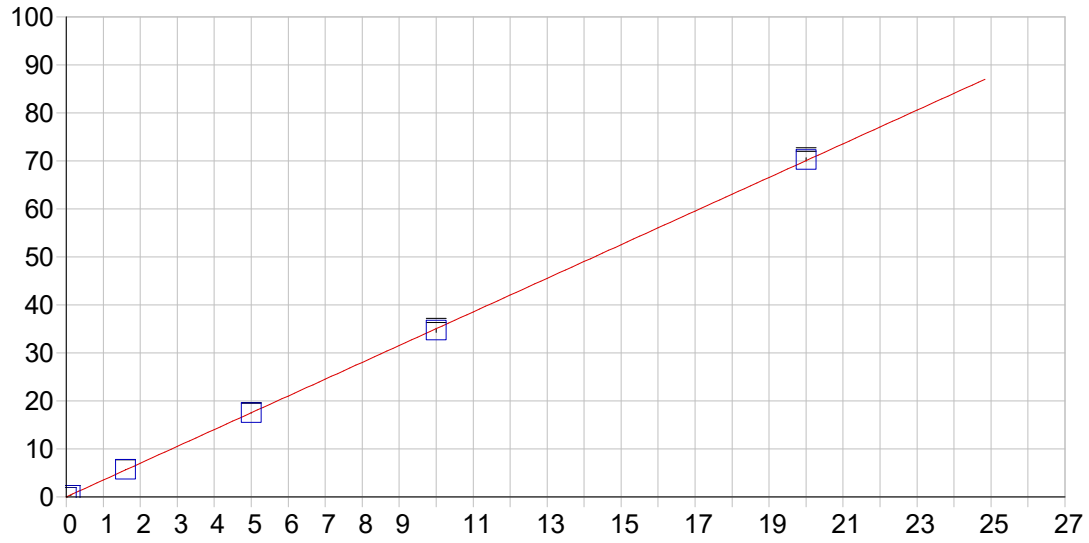


Al 396.152 { 85}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000072	Re-Slope:	1.000000
A1 (Gain):	0.068062	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999865	Status:	OK.
Std Error of Est:	0.000085		
Predicted MDL:	0.006113		
Predicted MQL:	0.020377		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00007	.000	1
S1	.10000	.10236	.002	2.36	.00757	.000	1
S3	5.0000	4.9661	-.034	-.679	.34468	.001	1
S4	10.000	9.7504	-.250	-2.50	.67691	.005	1
S5	20.000	20.276	.276	1.38	1.4065	.007	1
S2	1.6000	1.6053	.005	.332	.11145	.000	1

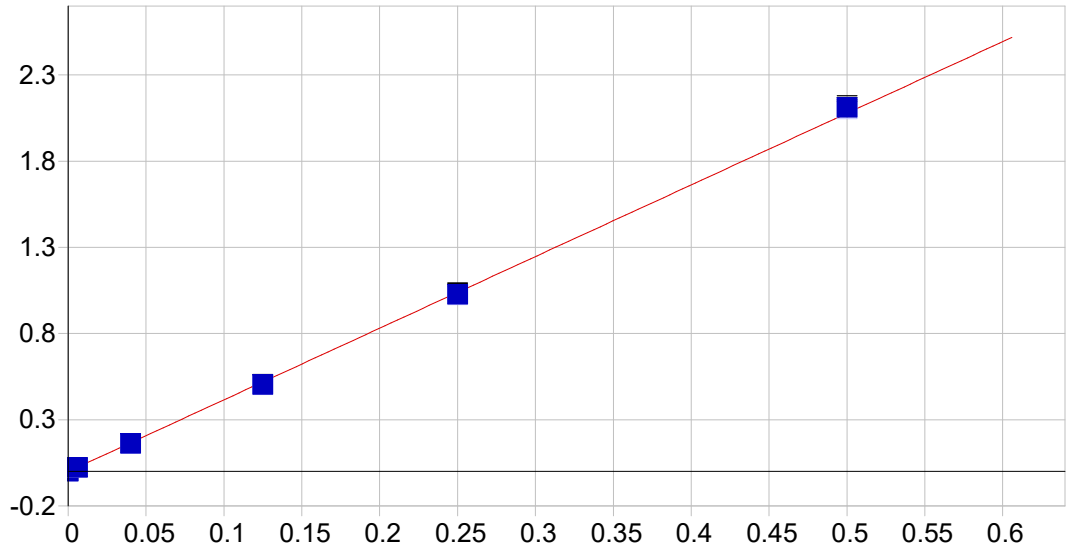


Ba 493.409 { 68}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.011351	Re-Slope:	1.000000
A1 (Gain):	3.502561	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999978	Status:	OK.
Std Error of Est:	0.001707		
Predicted MDL:	0.000462		
Predicted MQL:	0.001539		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.01135	.001	1
S1	.10000	.09895	-.001	-1.05	.35791	.002	1
S3	5.0000	4.9984	-.002	-.032	17.519	.060	1
S4	10.000	9.9095	-.091	-.905	34.720	.440	1
S5	20.000	20.063	.063	.317	70.285	.371	1
S2	1.6000	1.6297	.030	1.86	5.7195	.038	1

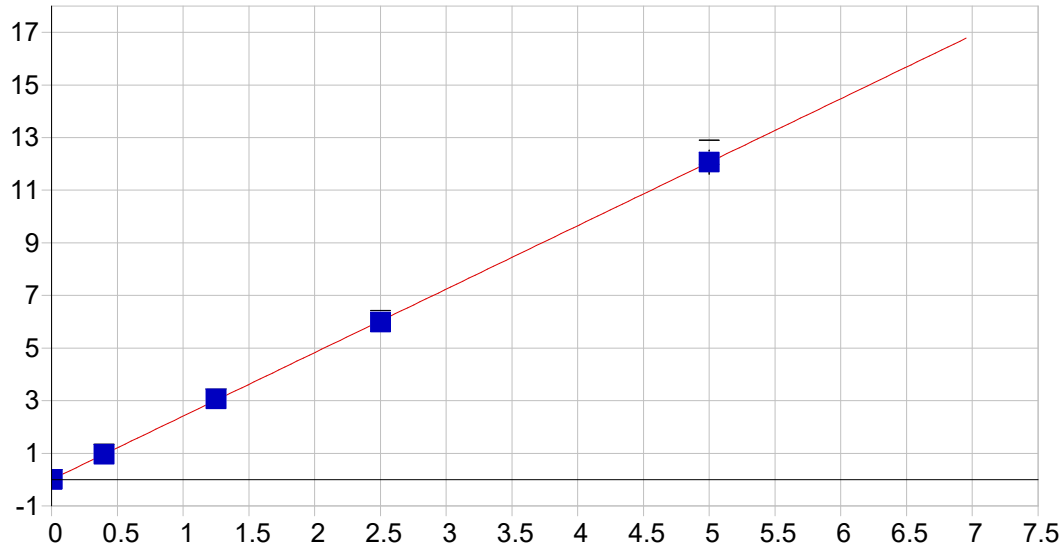


Be 234.861 {144}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000245	Re-Slope:	1.000000
A1 (Gain):	4.156434	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999825	Status:	OK.
Std Error of Est:	0.000223		
Predicted MDL:	0.000050		
Predicted MQL:	0.000167		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00024	.000	1
S1	.00600	.00570	-.000	-5.01	.02326	.000	1
S3	.12500	.12113	-.004	-3.10	.50089	.003	1
S4	.25000	.24735	-.003	-1.06	1.0232	.009	1
S5	.50000	.50792	.008	1.58	2.1016	.012	1
S2	.04000	.03889	-.001	-2.77	.16067	.001	1

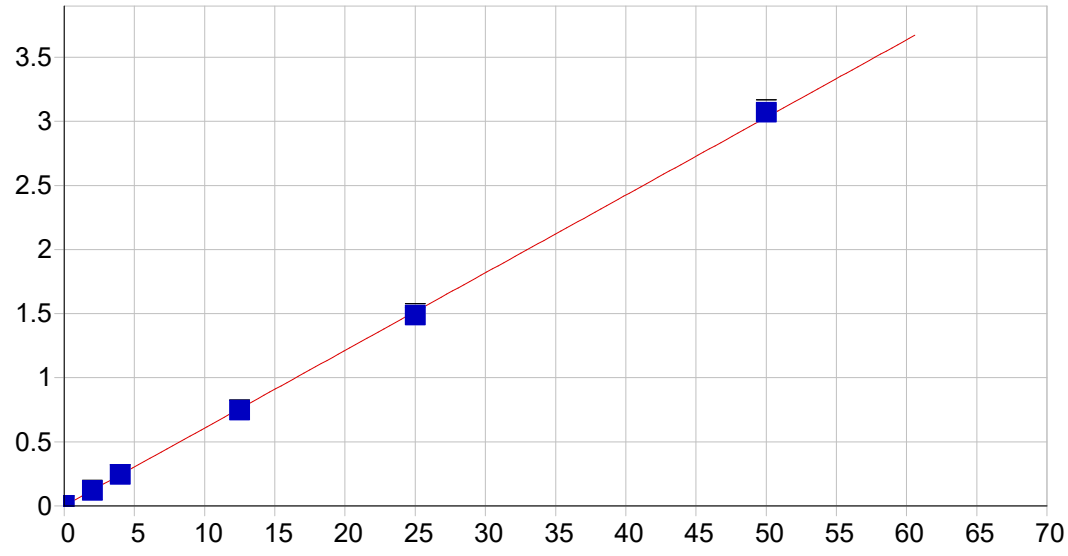


Cd 226.502 {449}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000029	Re-Slope:	1.000000
A1 (Gain):	2.413070	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999971	Status:	OK.
Std Error of Est:	0.000166		
Predicted MDL:	0.000080		
Predicted MQL:	0.000266		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00003	.000	1
S1	.00600	.00576	-.000	-4.00	.01399	.000	1
S3	1.2500	1.2713	.021	1.70	3.0700	.001	1
S4	2.5000	2.4803	-.020	-.789	5.9898	.063	1
S5	5.0000	4.9991	-.001	-.017	12.073	.460	1
S2	.40000	.39958	-.000	-.106	.96498	.002	1

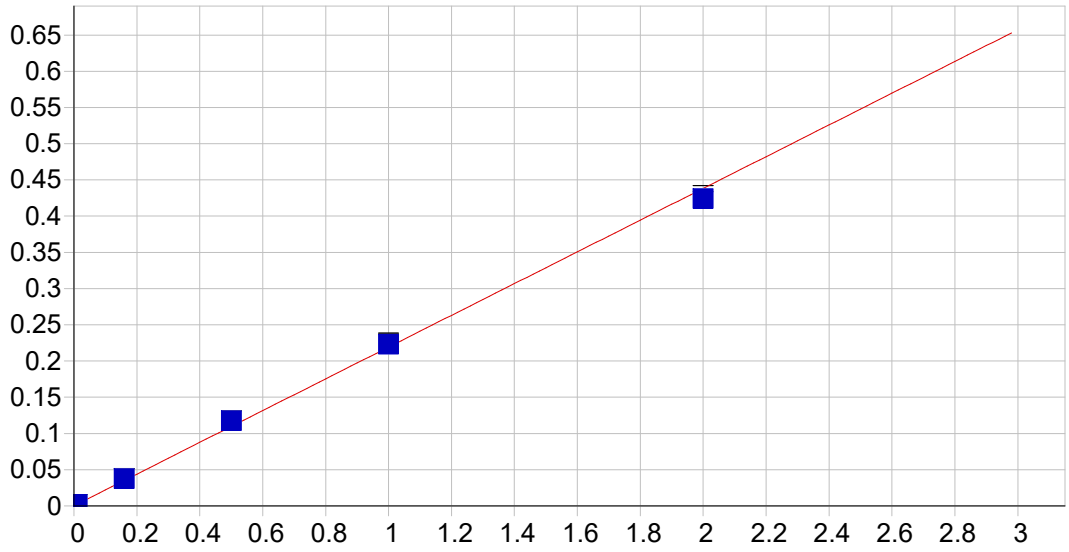


Ca 373.690 { 90}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001251	Re-Slope:	1.000000
A1 (Gain):	0.060587	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999888	Status:	OK.
Std Error of Est:	0.000480		
Predicted MDL:	0.006903		
Predicted MQL:	0.023009		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00006	.000	.000	.00125	.000	1
S2	4.0000	4.0149	.015	.372	.24450	.001	1
S3	12.500	12.314	-.186	-1.49	.74732	.001	1
S4	25.000	24.526	-.474	-1.89	1.4872	.015	1
S5	50.000	50.668	.668	1.34	3.0711	.019	1
S1	2.0000	1.9763	-.024	-1.19	.12099	.001	1

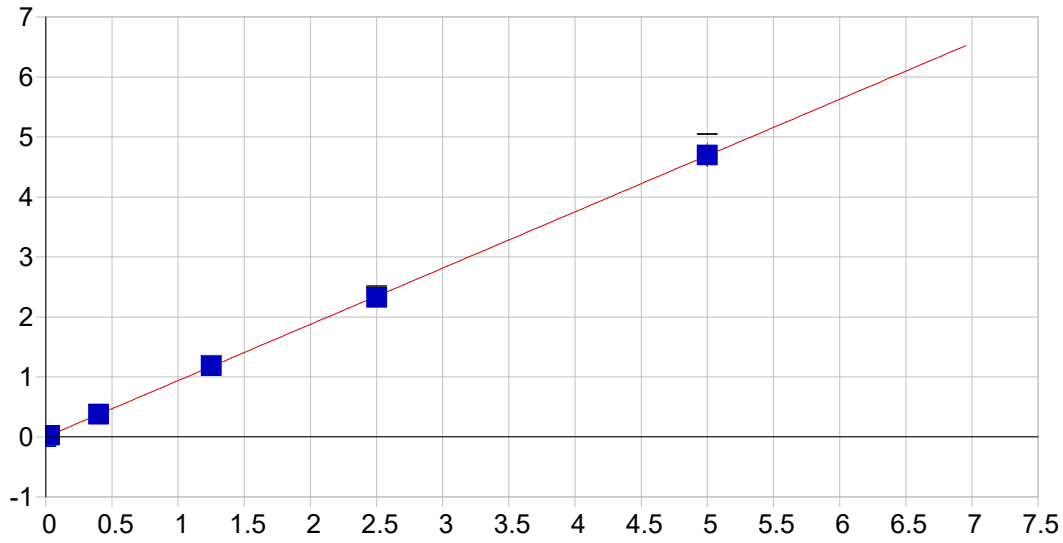


Cr 267.716 {126}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000127	Re-Slope:	1.000000
A1 (Gain):	0.219079	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999225	Status:	OK.
Std Error of Est:	0.000064		
Predicted MDL:	0.000349		
Predicted MQL:	0.001163		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00013	.000	1
S1	.01000	.01004	.000	.421	.00233	.000	1
S3	.50000	.53603	.036	7.21	.11759	.000	1
S4	1.0000	1.0168	.017	1.68	.22295	.002	1
S5	2.0000	1.9360	-.064	-3.20	.42440	.004	1
S2	.16000	.17112	.011	6.95	.03763	.000	1

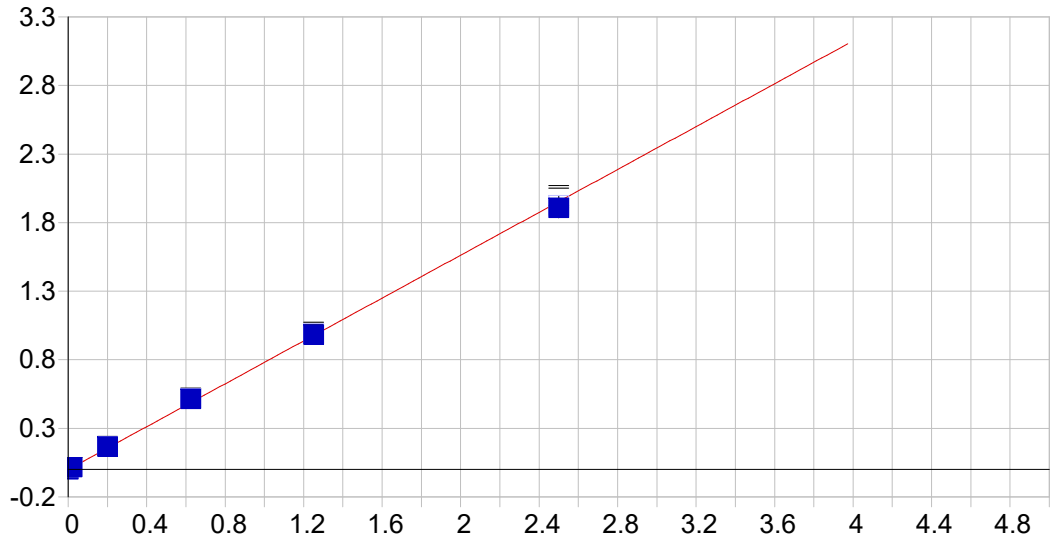


Co 228.616 {448}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000038	Re-Slope:	1.000000
A1 (Gain):	0.937870	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999974	Status:	OK.
Std Error of Est:	0.000139		
Predicted MDL:	0.000183		
Predicted MQL:	0.000610		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00004	.000	1
S1	.03000	.02933	-.001	-2.23	.02735	.000	1
S3	1.2500	1.2678	.018	1.43	1.1910	.001	1
S4	2.5000	2.4771	-.023	-.916	2.3271	.025	1
S5	5.0000	5.0051	.005	.101	4.7020	.184	1
S2	.40000	.40066	.001	.164	.37636	.000	1

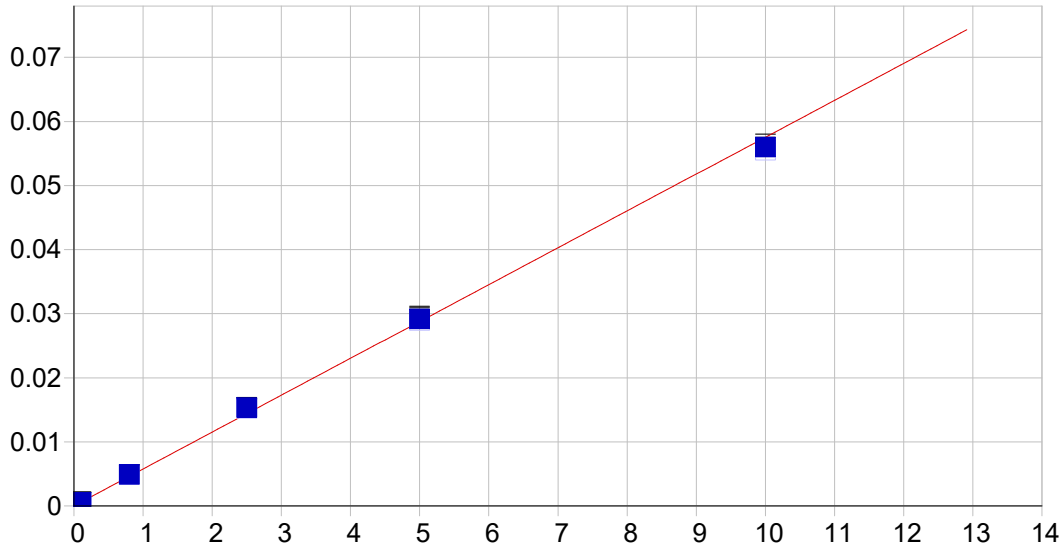


Cu 224.700 {450}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000424	Re-Slope:	1.000000
A1 (Gain):	0.781404	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999500	Status:	OK.
Std Error of Est:	0.000293		
Predicted MDL:	0.000374		
Predicted MQL:	0.001248		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00043	.000	1
S1	.02000	.02266	.003	13.3	.01748	.000	1
S3	.62500	.65921	.034	5.47	.51934	.001	1
S4	1.2500	1.2579	.008	.629	.99178	.009	1
S5	2.5000	2.4410	-.059	-2.36	1.9256	.072	1
S2	.20000	.21428	.014	7.14	.16851	.000	1

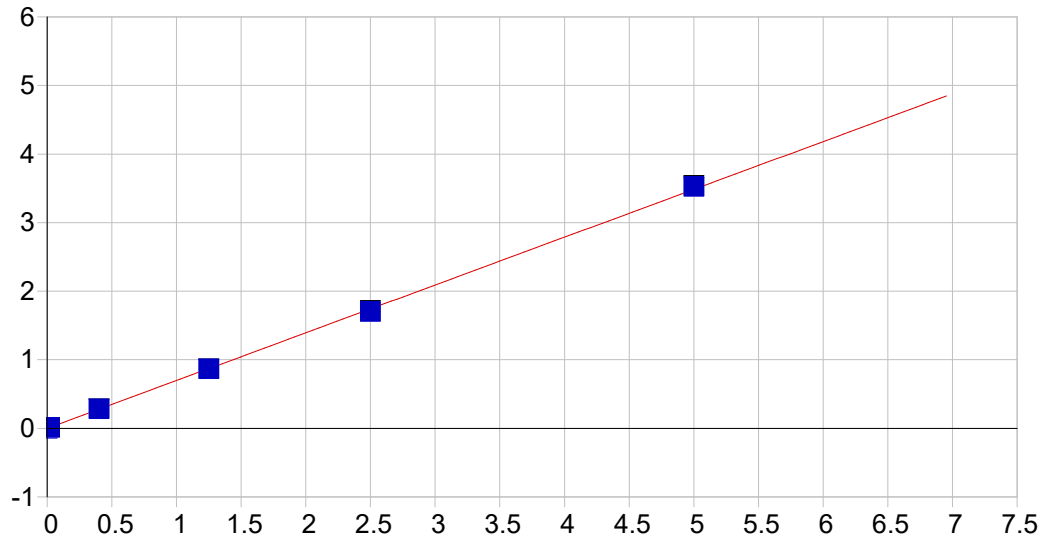


Fe 240.488 {140}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000025	Re-Slope:	1.000000
A1 (Gain):	0.005751	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999427	Status:	OK.
Std Error of Est:	0.000010		
Predicted MDL:	0.004073		
Predicted MQL:	0.013577		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00002	.000	1
S1	.10000	.10294	.003	2.94	.00061	.000	1
S3	2.5000	2.6578	.158	6.31	.01519	.000	1
S4	5.0000	5.0651	.065	1.30	.02891	.000	1
S5	10.000	9.7293	-.271	-2.71	.05549	.000	1
S2	.80000	.84483	.045	5.60	.00484	.000	1

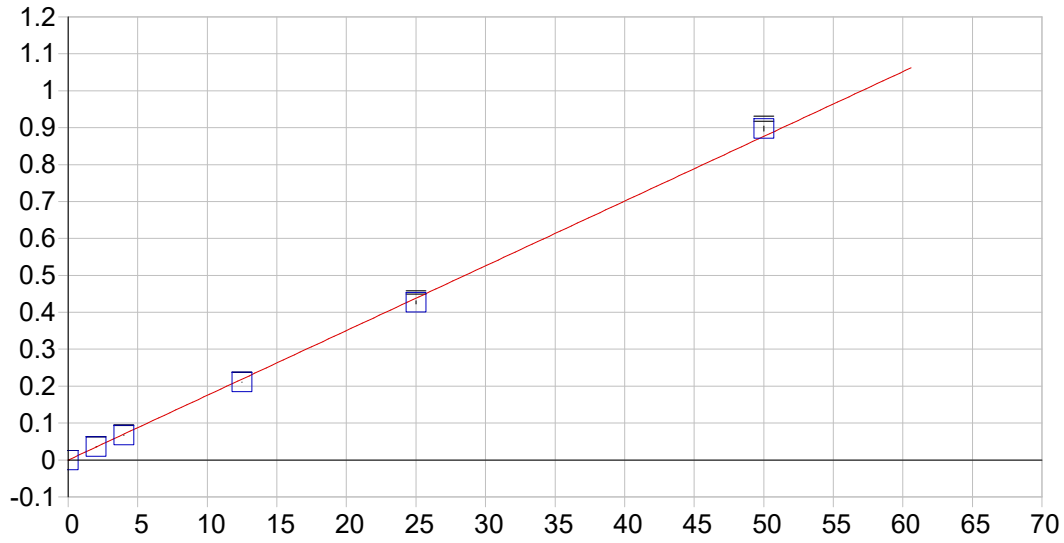


Mn 257.610 {131}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000086	Re-Slope:	1.000000
A1 (Gain):	0.696870	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999892	Status:	OK.
Std Error of Est:	0.000170		
Predicted MDL:	0.000240		
Predicted MQL:	0.000800		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00009	.000	1
S1	.02000	.02015	.000	.759	.01413	.000	1
S3	1.2500	1.2428	-.007	-.577	.86632	.002	1
S4	2.5000	2.4448	-.055	-2.21	1.7042	.013	1
S5	5.0000	5.0584	.058	1.17	3.5258	.015	1
S2	.40000	.40384	.004	.960	.28157	.002	1

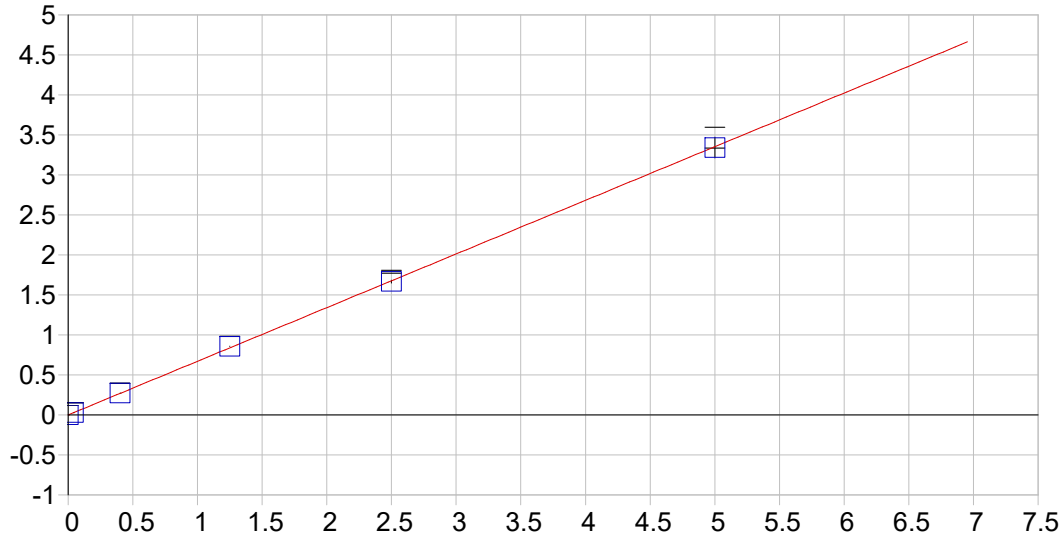


Mg 279.079 {121}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000111	Re-Slope:	1.000000
A1 (Gain):	0.017530	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999620	Status:	OK.
Std Error of Est:	0.000256		
Predicted MDL:	0.010450		
Predicted MQL:	0.034833		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00009	.000	.000	-.00011	.000	1
S2	4.0000	3.8454	-.155	-3.87	.06730	.001	1
S3	12.500	12.034	-.466	-3.73	.21085	.000	1
S4	25.000	24.355	-.645	-2.58	.42683	.004	1
S5	50.000	51.200	1.20	2.40	.89745	.007	1
S1	2.0000	2.0657	.066	3.28	.03610	.000	1

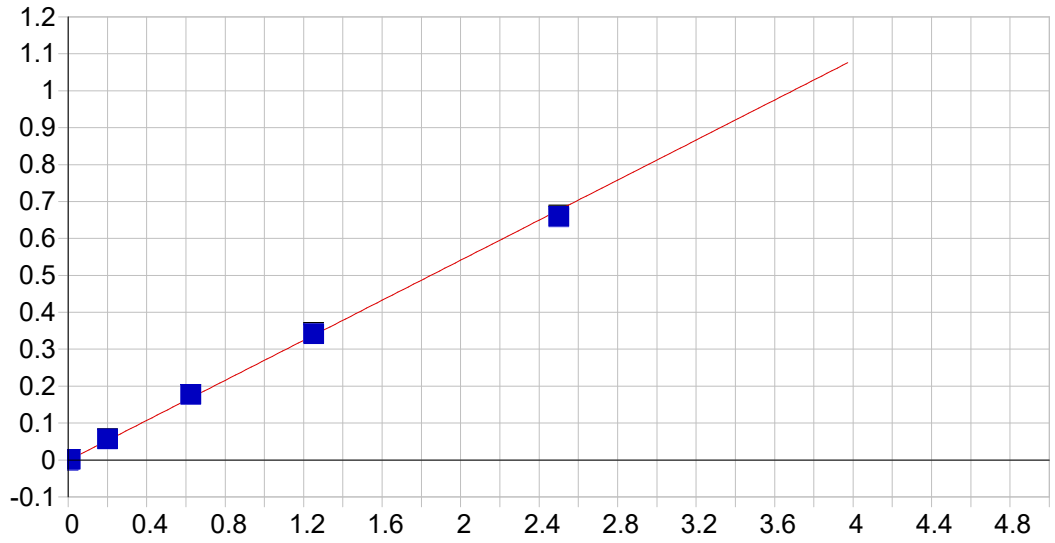


Ni 231.604 {446}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000072	Re-Slope:	1.000000
A1 (Gain):	0.670533	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999953	Status:	OK.
Std Error of Est:	0.000153		
Predicted MDL:	0.000287		
Predicted MQL:	0.000956		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00007	.000	1
S1	.04000	.03896	-.001	-2.60	.02620	.000	1
S3	1.2500	1.2784	.028	2.28	.85731	.001	1
S4	2.5000	2.4856	-.014	-.574	1.6668	.018	1
S5	5.0000	4.9824	-.018	-.351	3.3410	.131	1
S2	.40000	.40450	.005	1.13	.27130	.001	1

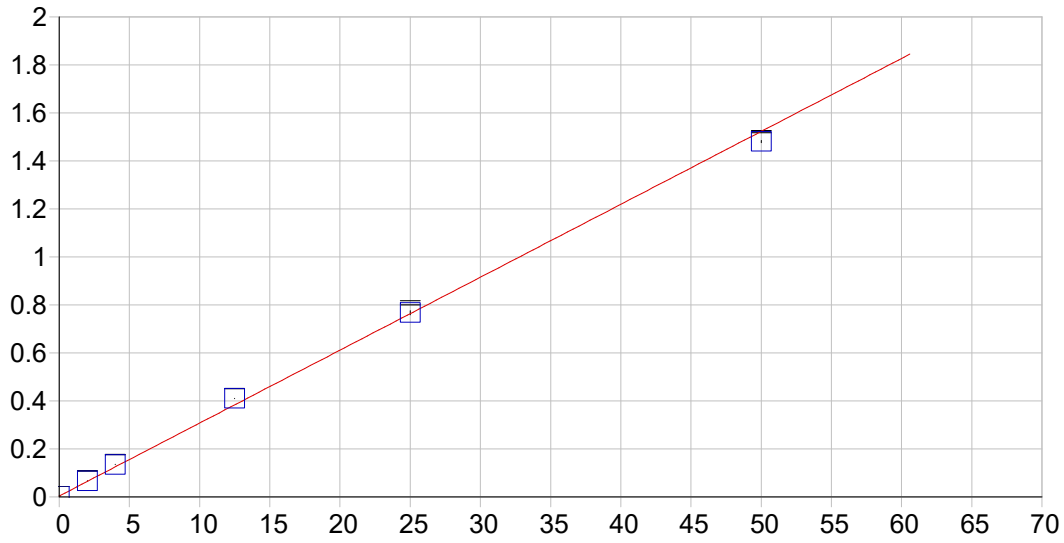


Ag 328.068 {103}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001241	Re-Slope:	1.000000
A1 (Gain):	0.271161	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999494	Status:	OK.
Std Error of Est:	0.000071		
Predicted MDL:	0.000363		
Predicted MQL:	0.001208		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00124	.000	1
S1	.01000	.01052	.001	5.21	.00159	.000	1
S3	.62500	.65861	.034	5.38	.17668	.000	1
S4	1.2500	1.2666	.017	1.33	.34086	.004	1
S5	2.5000	2.4358	-.064	-2.57	.65657	.004	1
S2	.20000	.21346	.013	6.73	.05643	.000	1

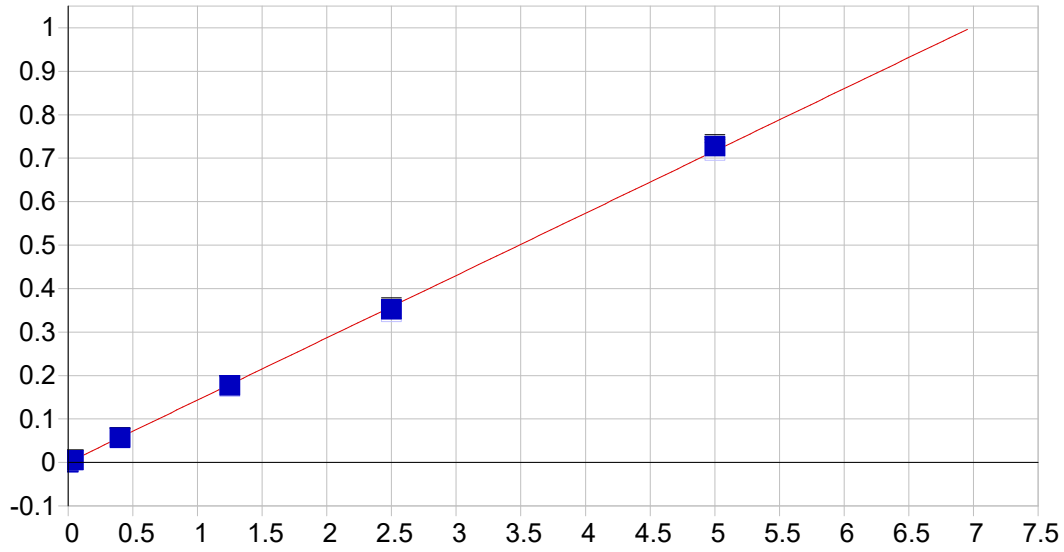


Na 589.592 { 57}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.003907	Re-Slope:	1.000000
A1 (Gain):	0.030381	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999319	Status:	OK.
Std Error of Est:	0.000593		
Predicted MDL:	0.005444		
Predicted MQL:	0.018146		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00033	-.000	.000	.00390	.000	1
S2	4.0000	4.3114	.311	7.79	.13489	.001	1
S3	12.500	13.371	.871	6.97	.41013	.001	1
S4	25.000	25.130	.130	.521	.76739	.008	1
S5	50.000	48.609	-1.39	-2.78	1.4807	.005	1
S1	2.0000	2.0781	.078	3.90	.06704	.000	1

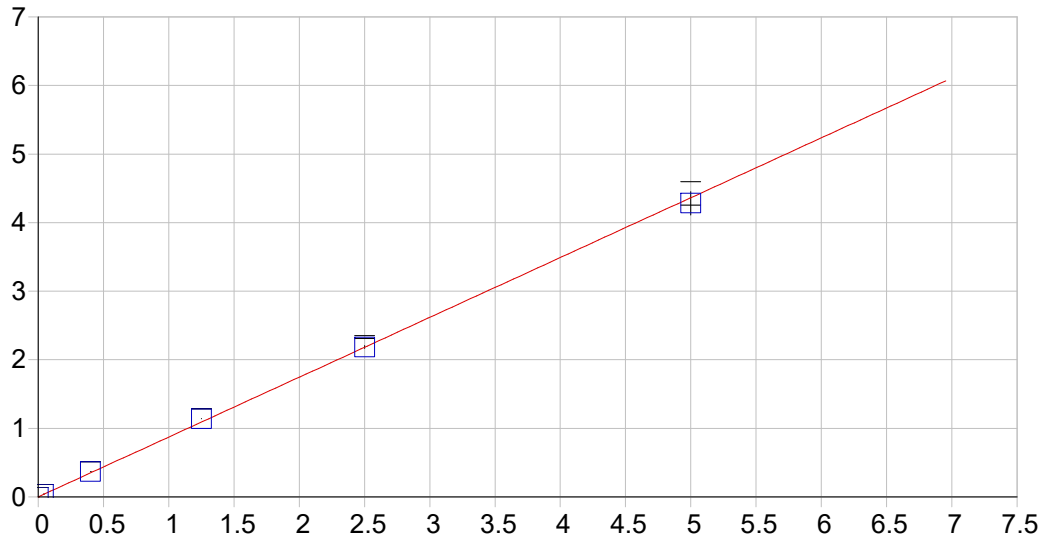


V 292.402 {115}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000172	Re-Slope:	1.000000
A1 (Gain):	0.143301	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999858	Status:	OK.
Std Error of Est:	0.000056		
Predicted MDL:	0.001314		
Predicted MQL:	0.004379		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00017	.000	1
S1	.04000	.03768	-.002	-5.79	.00536	.000	1
S3	1.2500	1.2312	-.019	-1.51	.17399	.000	1
S4	2.5000	2.4532	-.047	-1.87	.34650	.004	1
S5	5.0000	5.0747	.075	1.49	.71693	.004	1
S2	.40000	.39314	-.007	-1.71	.05567	.000	1

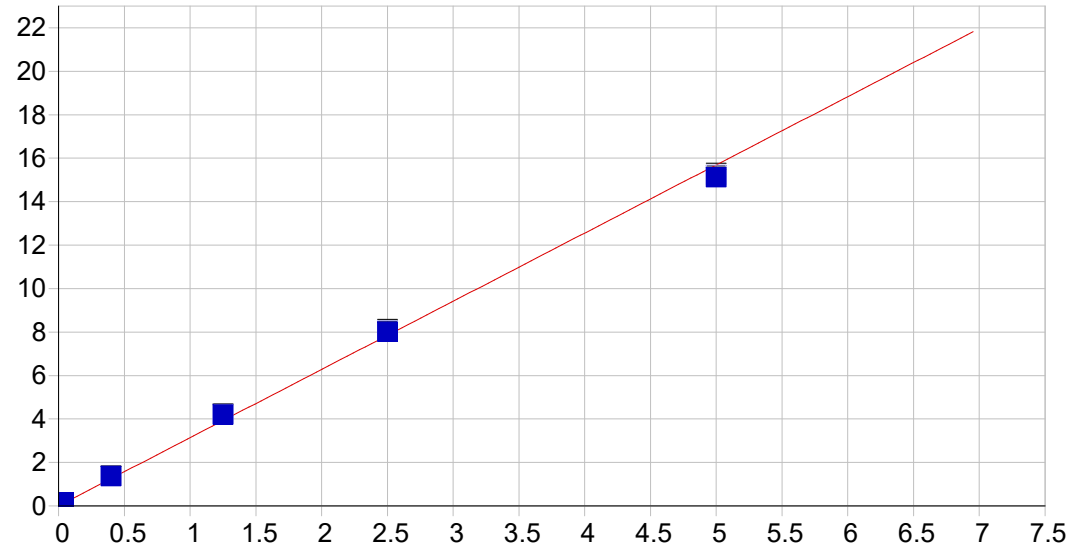


Zn 206.200 {464}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear
Weighting:	1/Conc		

A0 (Offset):	0.000437	Re-Slope:	1.000000
A1 (Gain):	0.872597	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999612	Status:	OK.
Std Error of Est:	0.000570		
Predicted MDL:	0.000205		
Predicted MQL:	0.000684		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00043	.000	1
S1	.04000	.04781	.008	19.5	.04216	.000	1
S3	1.2500	1.3070	.057	4.56	1.1409	.002	1
S4	2.5000	2.5047	.005	.189	2.1860	.021	1
S5	5.0000	4.9077	-.092	-1.85	4.2829	.170	1
S2	.40000	.42275	.023	5.69	.36933	.000	1

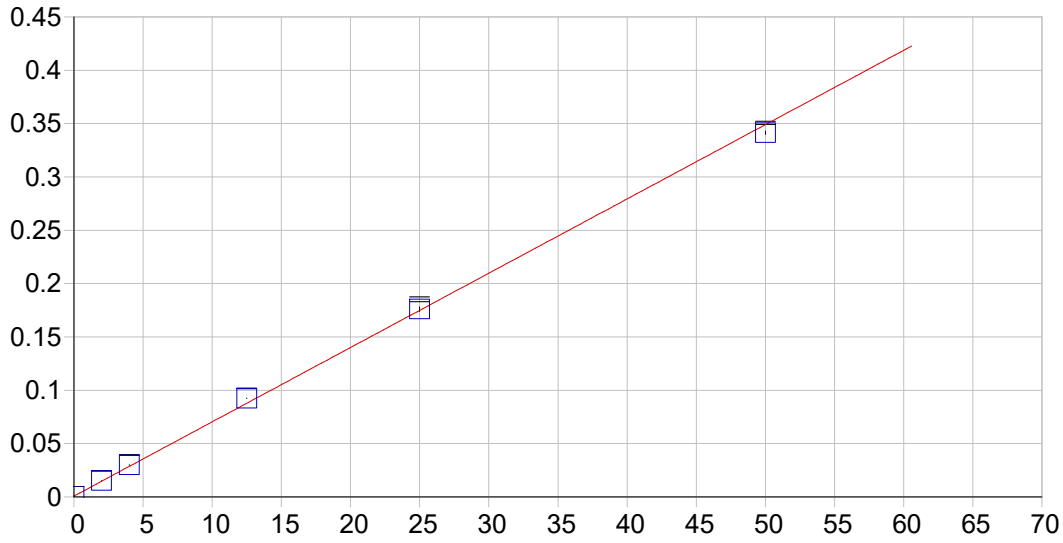


Zn 213.856 {158}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.003087	Re-Slope:	1.000000
A1 (Gain):	3.137941	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998991	Status:	OK.
Std Error of Est:	0.003333		
Predicted MDL:	0.000225		
Predicted MQL:	0.000749		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00304	.001	1
S1	.04000	.04864	.009	21.6	.15661	.001	1
S3	1.2500	1.3376	.088	7.01	4.2278	.008	1
S4	2.5000	2.5534	.053	2.14	8.0701	.059	1
S5	5.0000	4.8162	-.184	-3.68	15.225	.089	1
S2	.40000	.43412	.034	8.53	1.3741	.001	1

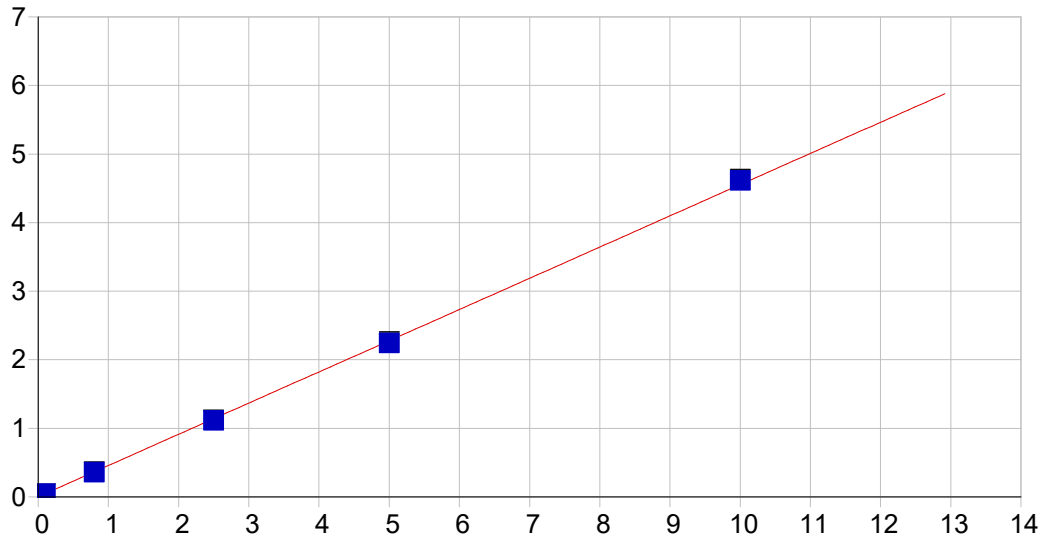


K 766.490 { 44}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000763	Re-Slope:	1.000000
A1 (Gain):	0.006965	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999611	Status:	OK.
Std Error of Est:	0.000103		
Predicted MDL:	0.025978		
Predicted MQL:	0.086593		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00024	-.000	.000	.00076	.000	1
S2	4.0000	4.2013	.201	5.03	.03002	.000	1
S3	12.500	13.166	.666	5.33	.09246	.000	1
S4	25.000	25.155	.155	.621	.17597	.002	1
S5	50.000	48.908	-1.09	-2.18	.34141	.002	1
S1	2.0000	2.0689	.069	3.44	.01517	.000	1

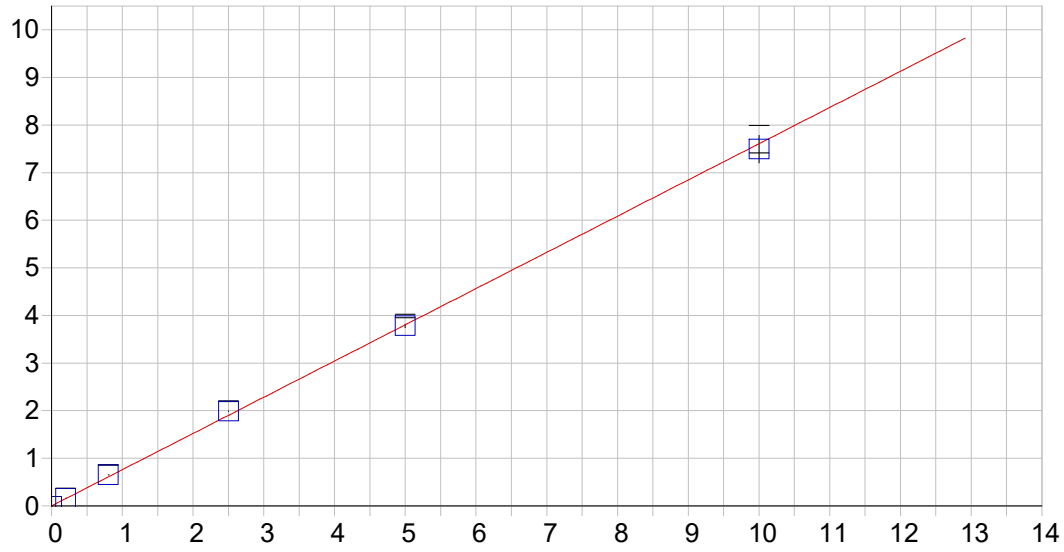


B 249.678 {135}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002657	Re-Slope:	1.000000
A1 (Gain):	0.455077	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999879	Status:	OK.
Std Error of Est:	0.000371		
Predicted MDL:	0.000567		
Predicted MQL:	0.001891		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00266	.000	1
S1	.10000	.09787	-.002	-2.13	.04700	.000	1
S3	2.5000	2.4461	-.054	-2.15	1.1136	.005	1
S4	5.0000	4.9277	-.072	-1.45	2.2407	.019	1
S5	10.000	10.141	.141	1.41	4.6087	.017	1
S2	.80000	.78722	-.013	-1.60	.36019	.002	1

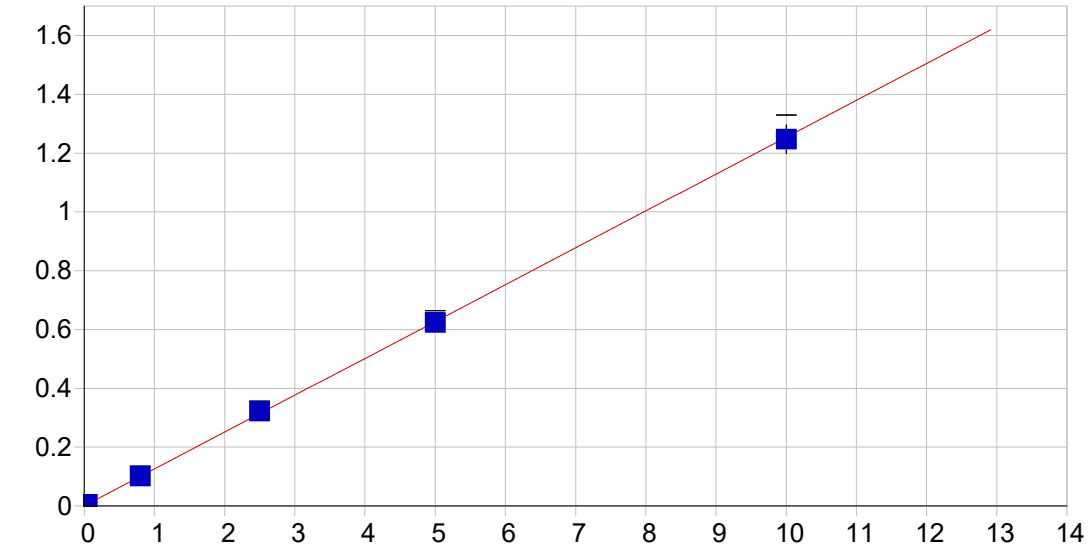


Mo 202.030 {467}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000154	Re-Slope:	1.000000
A1 (Gain):	0.760826	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999675	Status:	OK.
Std Error of Est:	0.001443		
Predicted MDL:	0.000250		
Predicted MQL:	0.000832		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00003	-.000	.000	.00013	.000	1
S1	.20000	.20913	.009	4.57	.15927	.000	1
S3	2.5000	2.6156	.116	4.63	1.9902	.004	1
S4	5.0000	4.9700	-.030	-.601	3.7814	.038	1
S5	10.000	9.8500	-.150	-1.50	7.4943	.288	1
S2	.80000	.85524	.055	6.90	.65084	.002	1

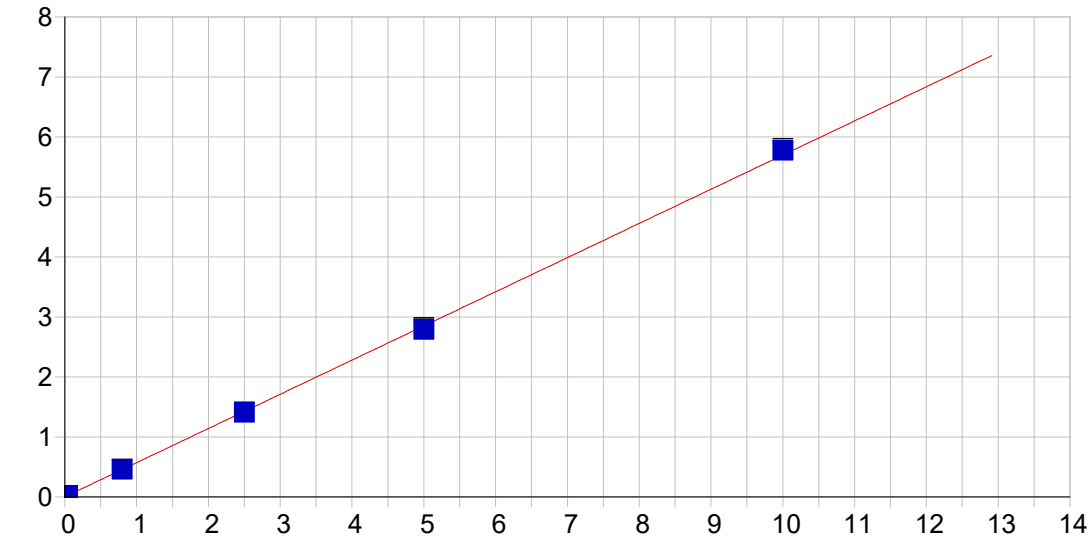


Sn 189.989 {478}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000178	Re-Slope:	1.000000
A1 (Gain):	0.125409	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999934	Status:	OK.
Std Error of Est:	0.000048		
Predicted MDL:	0.000718		
Predicted MQL:	0.002393		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00018	.000	1
S1	.04000	.03879	-.001	-3.03	.00504	.000	1
S3	2.5000	2.5688	.069	2.75	.32201	.000	1
S4	5.0000	4.9733	-.027	-.535	.62323	.007	1
S5	10.000	9.9510	-.049	-.490	1.2468	.048	1
S2	.80000	.80817	.008	1.02	.10143	.000	1

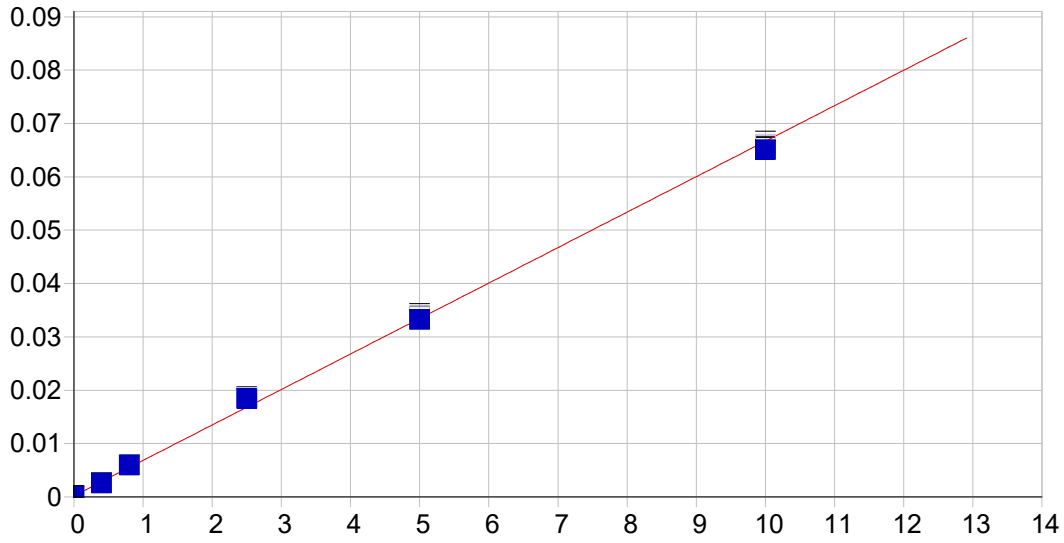


Ti 336.121 {100}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001891	Re-Slope:	1.000000
A1 (Gain):	0.569504	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999873	Status:	OK.
Std Error of Est:	0.000301		
Predicted MDL:	0.000490		
Predicted MQL:	0.001633		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00189	.000	1
S1	.04000	.03906	-.001	-2.34	.02412	.000	1
S3	2.5000	2.4700	-.030	-1.20	1.4081	.003	1
S4	5.0000	4.8910	-.109	-2.18	2.7863	.031	1
S5	10.000	10.137	.137	1.37	5.7729	.031	1
S2	.80000	.80291	.003	.364	.45899	.002	1

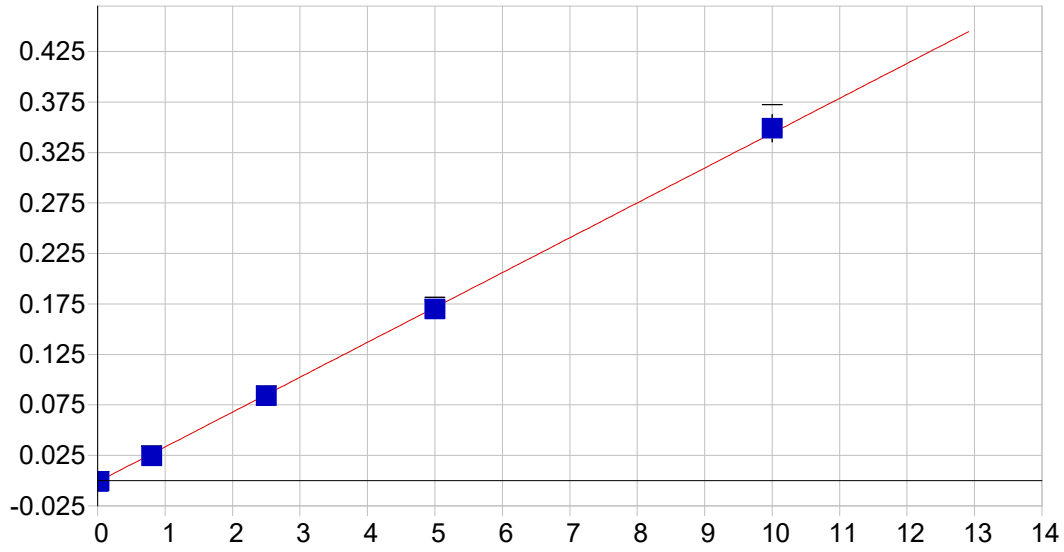


Si 288.158 {117}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000196	Re-Slope:	1.000000
A1 (Gain):	0.006648	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999018	Status:	OK.
Std Error of Est:	0.000032		
Predicted MDL:	0.006215		
Predicted MQL:	0.020717		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00002	-.000	.000	.00020	.000	1
S1	.40000	.36054	-.039	-9.86	.00260	.000	1
S3	2.5000	2.7427	.243	9.71	.01868	.000	1
S4	5.0000	4.9729	-.027	-.542	.03376	.001	1
S5	10.000	9.7625	-.237	-2.37	.06610	.001	1
S2	.80000	.86082	.061	7.60	.00600	.000	1

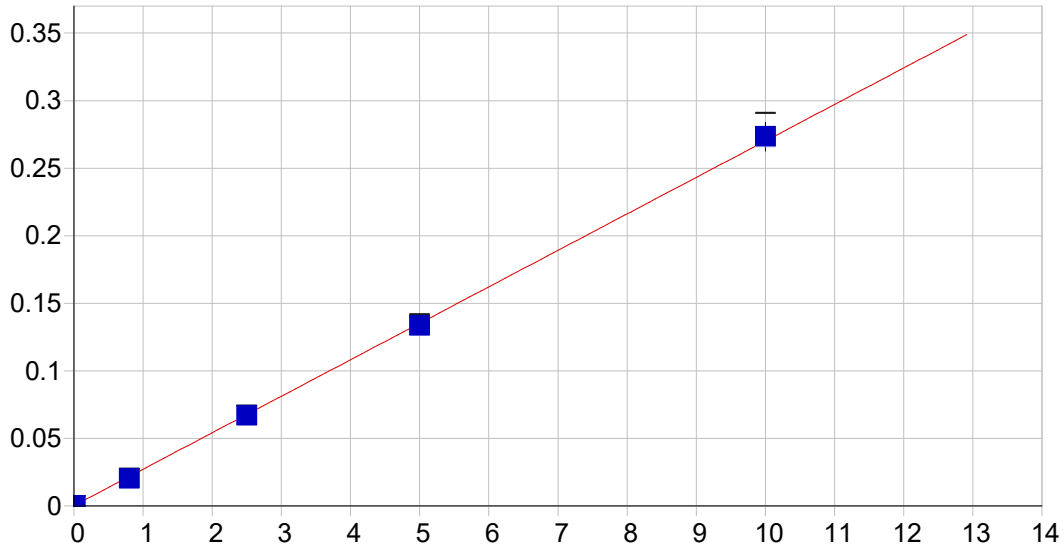


P 177.495 {490}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001138	Re-Slope:	1.000000
A1 (Gain):	0.034526	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999798	Status:	OK.
Std Error of Est:	0.000016		
Predicted MDL:	0.002447		
Predicted MQL:	0.008156		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00114	.000	1
S1	.02000	.01684	-.003	-15.8	-.00056	.000	1
S3	2.5000	2.4651	-.035	-1.40	.08396	.000	1
S4	5.0000	4.9538	-.046	-.925	.16987	.002	1
S5	10.000	10.141	.141	1.41	.34894	.013	1
S2	.80000	.74336	-.057	-7.08	.02452	.000	1

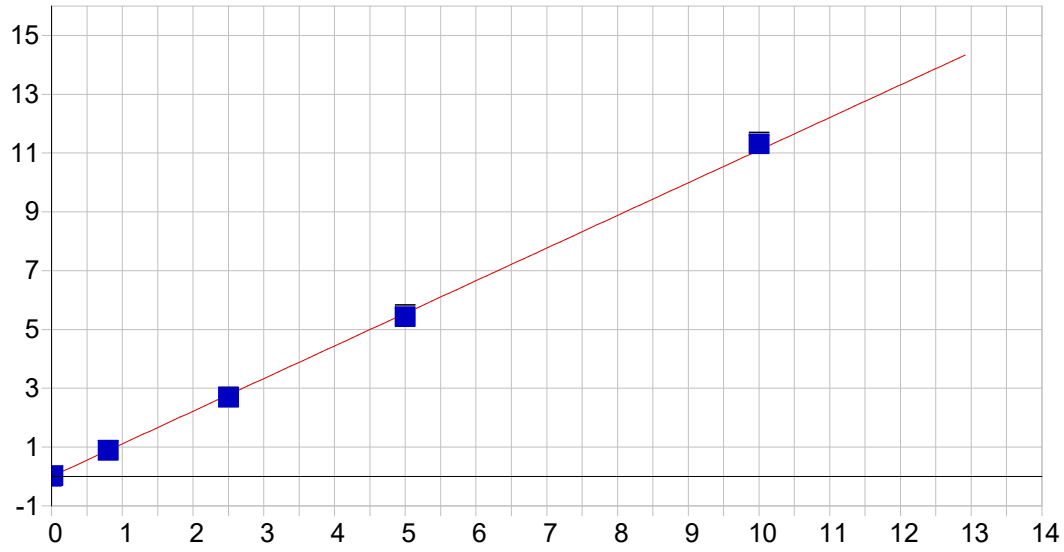


S 182.034 {485}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000183	Re-Slope:	1.000000
A1 (Gain):	0.026997	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999844	Status:	OK.
Std Error of Est:	0.000011		
Predicted MDL:	0.003092		
Predicted MQL:	0.010306		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00018	.000	1
S1	.02000	.01873	-.001	-6.37	.00067	.000	1
S3	2.5000	2.4805	-.019	-.779	.06697	.000	1
S4	5.0000	4.9425	-.057	-1.15	.13327	.001	1
S5	10.000	10.128	.128	1.28	.27292	.010	1
S2	.80000	.74979	-.050	-6.28	.02037	.000	1

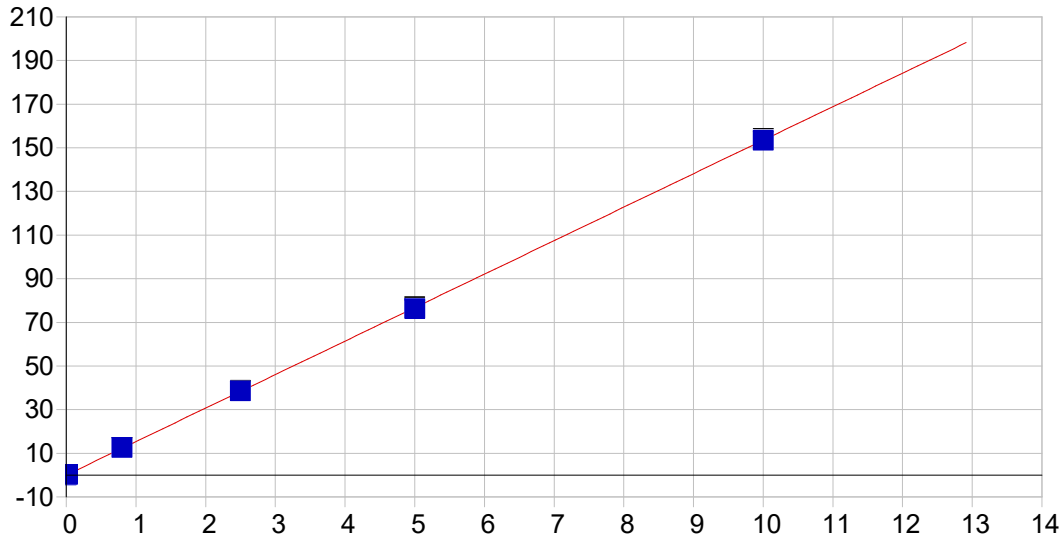


Li 670.784 { 50}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000829	Re-Slope:	1.000000
A1 (Gain):	1.109811	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999772	Status:	OK.
Std Error of Est:	0.000556		
Predicted MDL:	0.000729		
Predicted MQL:	0.002430		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00083	.001	1
S5	10.000	10.190	.190	1.90	11.319	.051	1
S4	5.0000	4.8969	-.103	-2.06	5.4404	.061	1
S3	2.5000	2.4199	-.080	-3.21	2.6889	.011	1
S1	.02000	.01909	-.001	-4.55	.02241	.000	1
S2	.80000	.79465	-.005	-.669	.88353	.005	1

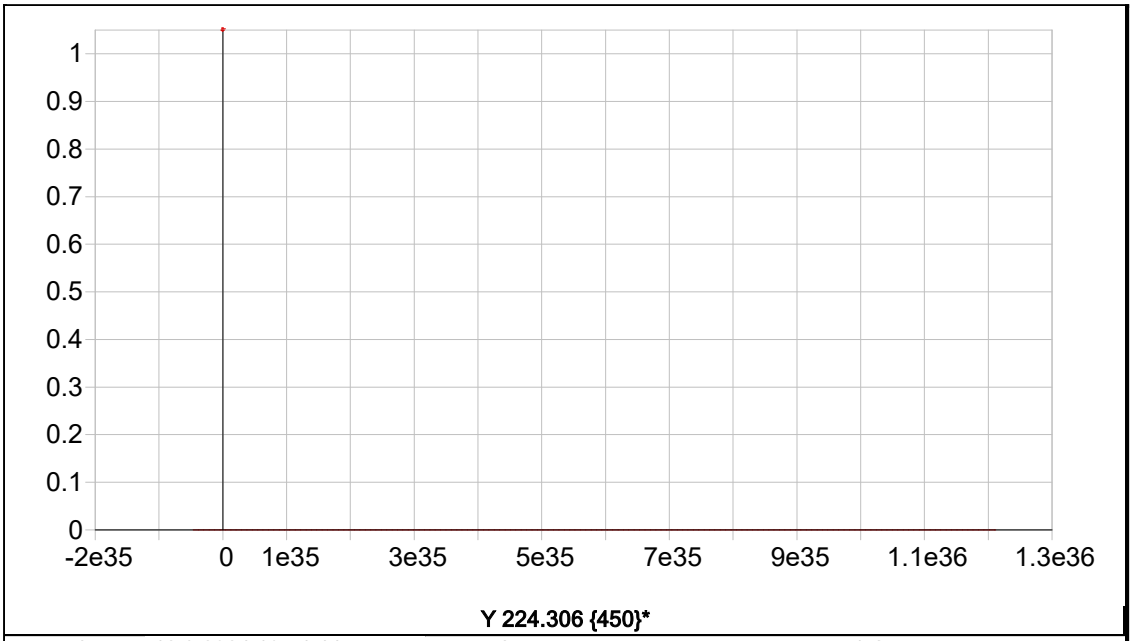


Sr 407.771 { 83}

Date of Fit:	12/18/2024 14:40:25	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000027	Re-Slope:	1.000000
A1 (Gain):	15.349188	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999976	Status:	OK.
Std Error of Est:	0.002473		
Predicted MDL:	0.000032		
Predicted MQL:	0.000106		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00003	.000	1
S1	.02000	.01990	-.000	-.486	.30700	.001	1
S3	2.5000	2.5094	.009	.377	38.556	.286	1
S4	5.0000	4.9703	-.030	-.595	76.366	.737	1
S5	10.000	9.9976	-.002	-.024	153.61	.593	1
S2	.80000	.82286	.023	2.86	12.642	.011	1

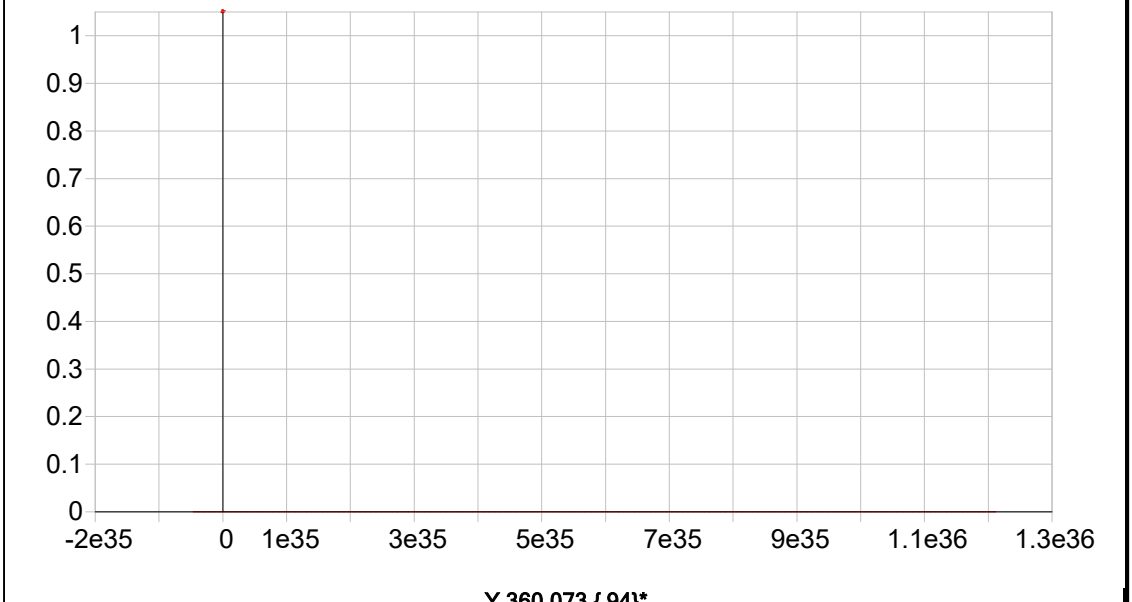


Y 224.306 {450}*

Date of Fit:	12/3/2024 10:54:44	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



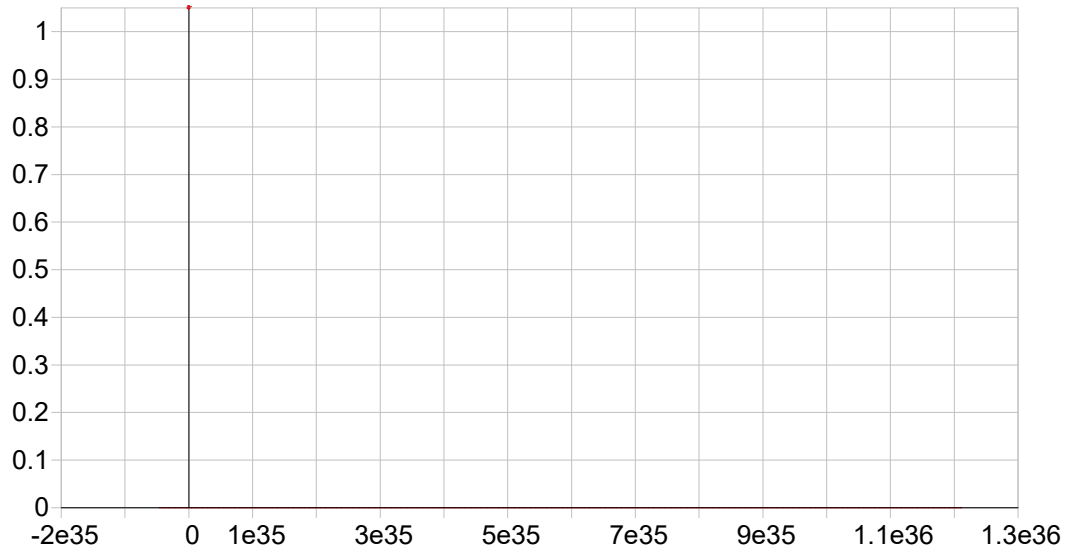
Y 360.073 { 94}*

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

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					

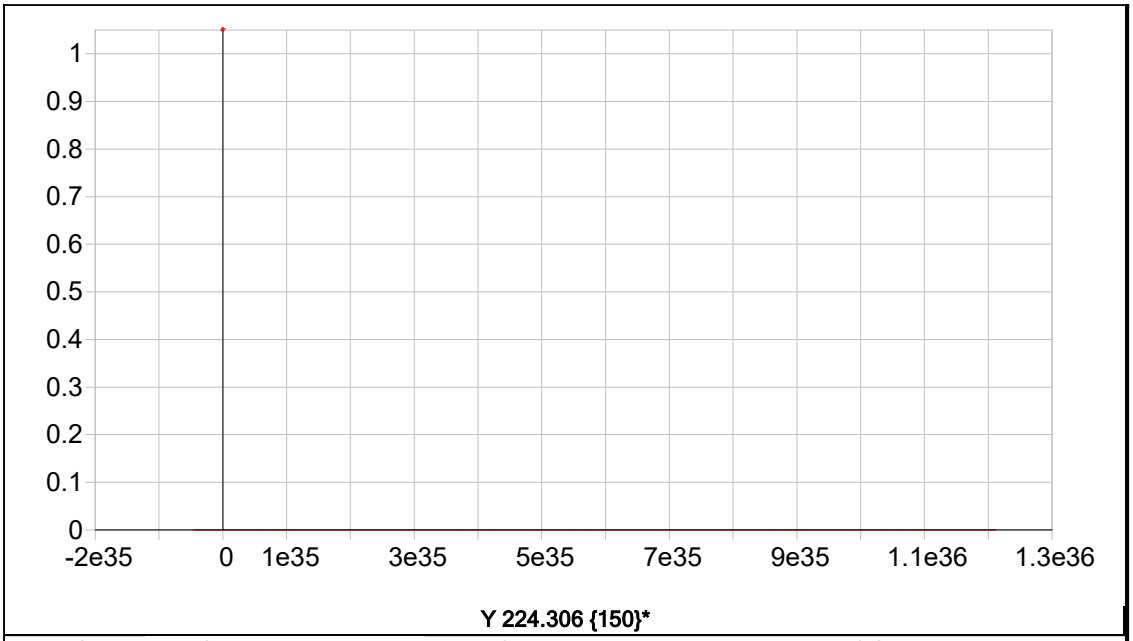
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



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

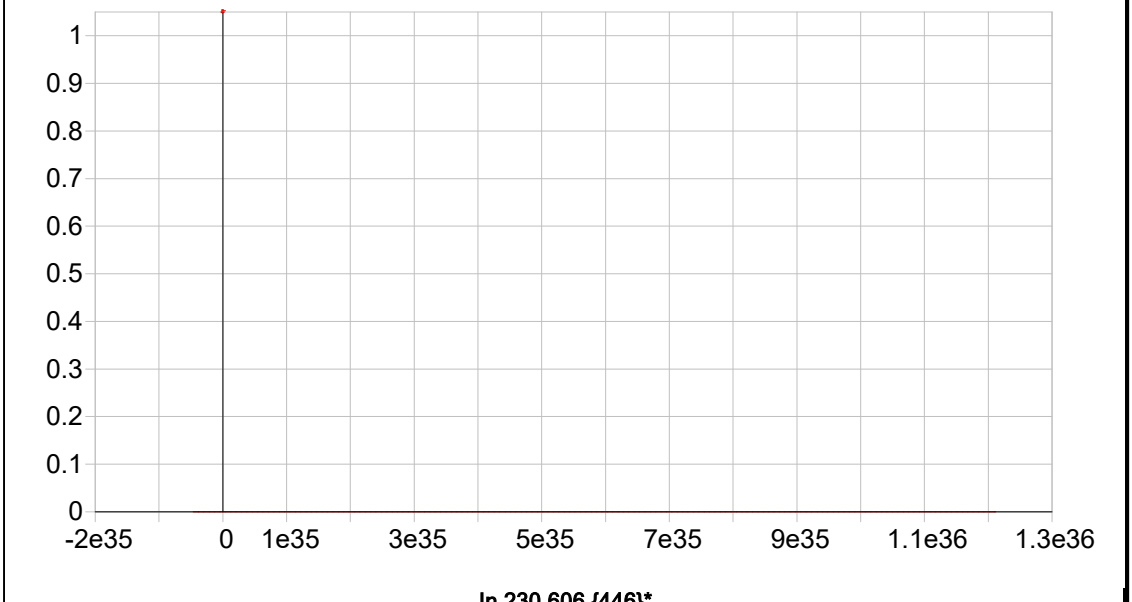


Y 224.306 {150}*

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

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

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: S0 Acquired: 12/18/2024 14:14:39 Type: Cal
Method: NON EPA-6010-200.7(v2483) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00018	-.00012	-.00032	.00033	.00031	.00007	.01135	-.00024
Stddev	.00002	.00008	.00048	.00009	.00020	.00012	.00121	.00009
%RSD	8.7833	68.457	148.83	27.316	66.434	169.25	10.628	36.714
#1	-.00016	-.00022	-.00067	.00024	.00007	-.00000	.01014	-.00034
#2	-.00019	-.00010	-.00051	.00042	.00043	.00021	.01137	-.00019
#3	-.00017	-.00005	.00022	.00032	.00042	.00001	.01255	-.00019

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	.00003	.00125	.00013	-.00004	-.00043	.00002	.00009	-.00011
Stddev	.00011	.00036	.00003	.00008	.00021	.00001	.00011	.00013
%RSD	362.37	28.992	23.809	216.85	48.209	20.366	124.99	115.19
#1	.00001	.00090	.00010	.00004	-.00026	.00003	.00015	.00004
#2	-.00006	.00123	.00011	-.00012	-.00036	.00003	.00014	-.00019
#3	.00015	.00163	.00016	-.00003	-.00066	.00002	-.00004	-.00017

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	.00007	-.00124	.00390	.00017	.00304	.00076	.00266	.00013
Stddev	.00020	.00002	.00026	.00025	.00065	.00011	.00021	.00010
%RSD	279.13	1.8134	6.6450	144.70	21.395	14.436	8.0388	75.180
#1	-.00010	-.00124	.00360	.00040	.00379	.00064	.00277	.00013
#2	.00003	-.00127	.00406	-.00009	.00273	.00085	.00241	.00003
#3	.00029	-.00122	.00403	.00021	.00261	.00079	.00280	.00023

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	.00018	.00189	.00020	-.00114	.00018	.00083	-.00003
Stddev	.00004	.00011	.00003	.00004	.00003	.00083	.00046
%RSD	21.820	5.6600	13.847	3.9119	14.231	100.02	1394.7
#1	.00014	.00195	.00019	-.00112	.00019	.00003	-.00052
#2	.00022	.00196	.00018	-.00111	.00016	.00077	.00039
#3	.00018	.00177	.00023	-.00119	.00021	.00169	.00003

Sample Name: S0 Acquired: 12/18/2024 14:14:39 Type: Cal
Method: NON EPA-6010-200.7(v2483) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2815.2	62303.	13082.	2330.4	4472.8
Stddev	16.4	13.	25.	3.1	20.6
%RSD	.58335	.02132	.18806	.13422	.45947
#1	2797.0	62319.	13110.	2328.9	4449.2
#2	2828.8	62294.	13064.	2328.2	4482.8
#3	2819.9	62298.	13071.	2333.9	4486.4

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: S1 Acquired: 12/18/2024 14:19:03 Type: Cal
Method: NON EPA-6010-200.7(v2483) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00108	.00267	.00259	.00226	.01042	.00757	.35791	.02326
Stddev	.00004	.00005	.00028	.00016	.00010	.00017	.00196	.00026
%RSD	3.7335	1.9471	10.864	6.9731	.98951	2.2919	.54889	1.0977
#1	.00110	.00271	.00236	.00211	.01031	.00773	.35649	.02302
#2	.00104	.00261	.00290	.00223	.01044	.00759	.36015	.02323
#3	.00111	.00267	.00250	.00243	.01051	.00738	.35709	.02353

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	.01399	.12099	.00233	.02735	.01748	.00061	.01413	.03610
Stddev	.00016	.00051	.00003	.00020	.00029	.00001	.00025	.00025
%RSD	1.1149	.42317	1.2532	.71552	1.6797	2.3511	1.7518	.68047
#1	.01414	.12158	.00235	.02752	.01751	.00063	.01442	.03607
#2	.01383	.12068	.00234	.02714	.01717	.00060	.01398	.03587
#3	.01400	.12070	.00230	.02740	.01776	.00060	.01400	.03636

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	.02620	.00159	.06704	.00536	.15661	.01517	.04700	.15927
Stddev	.00009	.00006	.00034	.00009	.00099	.00024	.00040	.00036
%RSD	.33960	3.8923	.50610	1.7184	.62979	1.6044	.84162	.22527
#1	.02613	.00162	.06668	.00546	.15548	.01490	.04719	.15920
#2	.02630	.00163	.06708	.00532	.15732	.01537	.04726	.15895
#3	.02616	.00152	.06736	.00529	.15702	.01524	.04654	.15965

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	.00504	.02412	.00260	-.00056	.00067	.02241	.30700
Stddev	.00005	.00013	.00007	.00006	.00007	.00037	.00053
%RSD	.91380	.52346	2.5808	10.037	10.777	1.6367	.17208
#1	.00506	.02419	.00262	-.00058	.00075	.02200	.30681
#2	.00506	.02398	.00252	-.00060	.00064	.02256	.30760
#3	.00498	.02420	.00265	-.00049	.00061	.02269	.30660

Sample Name: S1 Acquired: 12/18/2024 14:19:03 Type: Cal
Method: NON EPA-6010-200.7(v2483) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2671.8	59678.	12647.	2236.0	4173.4
Stddev	4.5	79.	34.	1.2	3.3
%RSD	.16916	.13303	.26793	.05360	.07932
#1	2676.9	59725.	12608.	2237.2	4177.1
#2	2668.5	59723.	12668.	2235.9	4170.7
#3	2669.9	59587.	12665.	2234.8	4172.5

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: S2 Acquired: 12/18/2024 14:23:29 Type: Cal
Method: NON EPA-6010-200.7(v2483) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.04867	.06026	.20964	.07276	.16444	.11145	5.7195	.16067
Stddev	.00021	.00048	.00029	.00033	.00045	.00006	.0375	.00103
%RSD	.43055	.79949	.13971	.44859	.27634	.05405	.65621	.64225
#1	.04888	.06080	.20939	.07290	.16487	.11139	5.7622	.16011
#2	.04865	.05987	.20996	.07300	.16448	.11151	5.7043	.16186
#3	.04847	.06011	.20957	.07239	.16397	.11143	5.6919	.16004

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	.96498	.24450	.03763	.37636	.16851	.00484	.28157	.06730
Stddev	.00232	.00132	.00015	.00049	.00011	.00003	.00154	.00052
%RSD	.24027	.53803	.39416	.13058	.06429	.56577	.54823	.77188
#1	.96243	.24403	.03752	.37580	.16846	.00487	.27996	.06724
#2	.96556	.24598	.03757	.37665	.16843	.00485	.28304	.06785
#3	.96696	.24348	.03779	.37664	.16863	.00481	.28170	.06681

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	.27130	.05643	.13489	.05567	1.3741	.03002	.36019	.65084
Stddev	.00071	.00004	.00051	.00010	.0013	.00025	.00186	.00184
%RSD	.26045	.06366	.37449	.18740	.09302	.83640	.51587	.28305
#1	.27051	.05642	.13529	.05578	1.3754	.03031	.35958	.65213
#2	.27186	.05639	.13432	.05567	1.3738	.02982	.36228	.65166
#3	.27155	.05646	.13506	.05557	1.3729	.02995	.35872	.64873

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	.10143	.45899	.00600	.02452	.02037	.88353	12.642
Stddev	.00014	.00225	.00008	.00014	.00008	.00529	.011
%RSD	.14008	.48931	1.3900	.56577	.41007	.59824	.09002
#1	.10129	.46061	.00590	.02465	.02047	.88964	12.640
#2	.10141	.45993	.00604	.02455	.02032	.88046	12.632
#3	.10158	.45643	.00606	.02437	.02032	.88051	12.655

Sample Name: S2 Acquired: 12/18/2024 14:23:29 Type: Cal
Method: NON EPA-6010-200.7(v2483) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2659.0	58916.	12727.	2235.9	4070.5
Stddev	8.4	100.	44.	6.0	5.1
%RSD	.31653	.17019	.34629	.26811	.12496
#1	2653.5	58968.	12746.	2233.9	4071.1
#2	2654.9	58980.	12677.	2231.2	4065.1
#3	2668.7	58801.	12759.	2242.7	4075.2

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: S3 Acquired: 12/18/2024 14:27:42 Type: Cal
Method: NON EPA-6010-200.7(v2483) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.15384	.18608	.66125	.22787	.51143	.34468	17.519	.50089
Stddev	.00011	.00077	.00069	.00041	.00112	.00054	.060	.00306
%RSD	.07284	.41222	.10378	.17821	.21928	.15606	.34448	.60992
#1	.15377	.18696	.66050	.22825	.51259	.34526	17.519	.50376
#2	.15378	.18560	.66184	.22793	.51035	.34456	17.579	.50124
#3	.15397	.18567	.66139	.22744	.51135	.34420	17.458	.49768

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3.0700	.74732	.11759	1.1910	.51934	.01519	.86632	.21085
Stddev	.0006	.00076	.00035	.0007	.00071	.00007	.00212	.00040
%RSD	.02092	.10163	.29953	.05599	.13595	.43319	.24419	.19072
#1	3.0693	.74799	.11779	1.1903	.52005	.01511	.86835	.21041
#2	3.0702	.74649	.11719	1.1916	.51864	.01524	.86412	.21094
#3	3.0705	.74748	.11780	1.1912	.51934	.01521	.86648	.21120

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	.85731	.17668	.41013	.17399	4.2278	.09246	1.1136	1.9902
Stddev	.00113	.00021	.00082	.00014	.0083	.00026	.0052	.0039
%RSD	.13203	.12100	.20061	.08192	.19641	.28226	.47041	.19397
#1	.85625	.17643	.41103	.17396	4.2368	.09243	1.1187	1.9944
#2	.85718	.17676	.40942	.17414	4.2263	.09274	1.1139	1.9893
#3	.85850	.17683	.40993	.17386	4.2204	.09222	1.1082	1.9869

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	.32201	1.4081	.01868	.08396	.06697	2.6889	38.556
Stddev	.00008	.0030	.00008	.00018	.00009	.0107	.286
%RSD	.02341	.21567	.40825	.21548	.14149	.39714	.74279
#1	.32194	1.4108	.01860	.08379	.06706	2.7004	38.456
#2	.32200	1.4086	.01868	.08393	.06687	2.6869	38.879
#3	.32209	1.4048	.01876	.08415	.06699	2.6794	38.333

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: S3 Acquired: 12/18/2024 14:27:42 Type: Cal
Method: NON EPA-6010-200.7(v2483) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2562.3	56422.	12431.	2161.0	3787.4
Stddev	4.4	101.	52.	1.8	3.1
%RSD	.17151	.17856	.41726	.08227	.08241
#1	2557.4	56363.	12374.	2160.4	3783.9
#2	2563.6	56539.	12446.	2159.6	3789.9
#3	2565.9	56365.	12475.	2163.0	3788.3

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: S4 Acquired: 12/18/2024 14:32:00 Type: Cal
Method: NON EPA-6010-200.7(v2483) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.28729	.35522	1.2543	.43592	.98171	.67691	34.720	1.0232
Stddev	.00259	.00371	.0136	.00437	.00914	.00506	.440	.0088
%RSD	.90307	1.0445	1.0855	1.0029	.93067	.74720	1.2659	.86274
#1	.29025	.35942	1.2697	.44093	.99219	.67695	35.205	1.0274
#2	.28625	.35236	1.2494	.43396	.97751	.67184	34.348	1.0131
#3	.28538	.35390	1.2439	.43288	.97542	.68195	34.607	1.0292

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5.9898	1.4872	.22295	2.3271	.99178	.02891	1.7042	.42683
Stddev	.0627	.0146	.00204	.0246	.00913	.00046	.0129	.00441
%RSD	1.0466	.97859	.91323	1.0585	.92097	1.5955	.75622	1.0321
#1	6.0582	1.4882	.22089	2.3540	1.0023	.02855	1.7078	.42719
#2	5.9759	1.4722	.22299	2.3220	.98757	.02875	1.6899	.42226
#3	5.9352	1.5012	.22496	2.3055	.98551	.02943	1.7149	.43105

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	1.6668	.34086	.76739	.34650	8.0701	.17597	2.2407	3.7814
Stddev	.0178	.00350	.00828	.00400	.0595	.00236	.0194	.0377
%RSD	1.0699	1.0282	1.0791	1.1539	.73705	1.3433	.86777	.99669
#1	1.6855	.33737	.75922	.34806	8.0184	.17373	2.2476	3.8247
#2	1.6649	.34082	.76717	.34196	8.0568	.17574	2.2188	3.7638
#3	1.6500	.34438	.77578	.34948	8.1351	.17844	2.2558	3.7558

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	.62323	2.7863	.03376	.16987	.13327	5.4404	76.366
Stddev	.00701	.0314	.00064	.00197	.00126	.0606	.737
%RSD	1.1250	1.1264	1.9077	1.1595	.94426	1.1131	.96473
#1	.63089	2.7888	.03309	.17209	.13465	5.4425	76.750
#2	.62165	2.7537	.03381	.16920	.13297	5.3789	75.517
#3	.61714	2.8164	.03437	.16833	.13218	5.4999	76.832

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: S4 Acquired: 12/18/2024 14:32:00 Type: Cal
Method: NON EPA-6010-200.7(v2483) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2547.9	56469.	11752.	2134.6	3686.6
Stddev	25.3	537.	88.	14.8	41.1
%RSD	.99307	.95059	.75217	.69211	1.1143
#1	2519.4	57030.	11704.	2149.4	3642.4
#2	2556.6	56415.	11854.	2134.6	3693.8
#3	2567.7	55961.	11699.	2119.8	3723.6

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: S5 Acquired: 12/18/2024 14:36:14 Type: Cal
Method: NON EPA-6010-200.7(v2483) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.56889	.70540	2.5131	.85810	1.9464	1.4065	70.285	2.1016
Stddev	.02101	.02789	.0971	.03151	.0712	.0073	.371	.0124
%RSD	3.6932	3.9544	3.8626	3.6720	3.6603	.52079	.52755	.58940
#1	.54747	.67673	2.4155	.82637	1.8750	1.3984	70.678	2.0883
#2	.56972	.70703	2.5141	.85855	1.9467	1.4084	70.235	2.1128
#3	.58947	.73245	2.6096	.88939	2.0175	1.4127	69.942	2.1038

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	12.073	3.0711	.42440	4.7020	1.9256	.05549	3.5258	.89745
Stddev	.460	.0188	.00419	.1841	.0720	.00048	.0152	.00701
%RSD	3.8069	.61347	.98777	3.9146	3.7385	.85972	.42955	.78070
#1	11.617	3.0494	.42097	4.5175	1.8527	.05511	3.5085	.88948
#2	12.064	3.0836	.42907	4.7030	1.9274	.05602	3.5324	.90265
#3	12.536	3.0802	.42316	4.8856	1.9967	.05533	3.5366	.90020

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	3.3410	.65657	1.4807	.71693	15.225	.34141	4.6087	7.4943
Stddev	.1308	.00410	.0051	.00356	.089	.00162	.0175	.2875
%RSD	3.9163	.62483	.34700	.49692	.58337	.47312	.37940	3.8369
#1	3.2094	.65400	1.4779	.71301	15.161	.33970	4.5886	7.2065
#2	3.3425	.66130	1.4866	.71781	15.327	.34291	4.6204	7.4948
#3	3.4710	.65442	1.4776	.71997	15.187	.34161	4.6172	7.7816

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	1.2468	5.7729	.06610	.34894	.27292	11.319	153.61
Stddev	.0483	.0307	.00062	.01350	.01034	.051	.59
%RSD	3.8764	.53123	.94317	3.8676	3.7887	.45289	.38587
#1	1.1983	5.7402	.06544	.33542	.26244	11.269	152.97
#2	1.2472	5.7775	.06668	.34899	.27319	11.318	153.72
#3	1.2950	5.8010	.06618	.36241	.28312	11.371	154.13

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: S5 Acquired: 12/18/2024 14:36:14 Type: Cal
Method: NON EPA-6010-200.7(v2483) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2527.6	57656.	11147.	2155.2	3562.8
Stddev	82.0	378.	48.	4.9	117.1
%RSD	3.2446	.65569	.42805	.22504	3.2855
#1	2611.4	57914.	11200.	2157.0	3682.1
#2	2524.1	57222.	11107.	2149.7	3558.1
#3	2447.5	57832.	11134.	2158.9	3448.1

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: ICV01 Acquired: 12/18/2024 14:40:26 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9967515	1.018127	1.002034	1.000218	.9927979	2.456900
Stddev	.0021434	.006469	.001426	.001079	.0026781	.003730
%RSD	.2150414	.6353792	.1423317	.1078907	.2697554	.1518212
#1	.9973003	1.024181	1.003531	.999811	.9939671	2.453577
#2	.9943870	1.011311	1.000691	1.001442	.9946926	2.456189
#3	.9985671	1.018891	1.001880	.999402	.9897339	2.460935

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5006224	.4968316	.4998444	9.802169	.5368622	.5065885
Stddev	.0032887	.0016980	.0007687	.035521	.0021400	.0007226
%RSD	.6569176	.3417714	.1537896	.3623824	.3986190	.1426392
#1	.4970084	.4955994	.4994474	9.776262	.5357906	.5063266
#2	.5014196	.4961268	.4993554	9.787583	.5393263	.5060334
#3	.5034392	.4987685	.5007305	9.842661	.5354697	.5074056

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5150416	10.24424	.5028068	5.789421	.5088633	.2507104
Stddev	.0008348	.03478	.0018268	.015049	.0009725	.0007024
%RSD	.1620770	.3394954	.3633126	.2599453	.1911216	.2801631
#1	.5145226	10.20520	.5031874	5.792197	.5090353	.2503224
#2	.5160045	10.25562	.5008197	5.773177	.5078162	.2502877
#3	.5145976	10.27190	.5044133	5.802889	.5097384	.2515212

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.811092	.4939166	1.024395	9.874651	F .0231933	F .0009867
Stddev	.004859	.0008082	.002287	.050630	.0003019	.0002761
%RSD	.0495247	.1636352	.2232762	.5127301	1.301785	27.98534
#1	9.809077	.4934264	1.023086	9.825519	.0233408	.0012963
#2	9.816634	.4934739	1.023063	9.926657	.0228460	.0008979
#3	9.807564	.4948494	1.027036	9.871777	.0233931	.0007659

Sample Name: ICV01 Acquired: 12/18/2024 14:40:26 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.000085	F .0000369	F -.000890	F .0042238	F .0013243	F -.001471
Stddev	.000527	.0003911	.001178	.0014060	.0032391	.000221
%RSD	622.4590	1060.160	132.4070	33.28845	244.5841	15.02903
#1	-.000691	-.000276	-.001262	.0027146	.0003401	-.001726
#2	.000263	.000475	-.001836	.0044598	-.001308	-.001340
#3	.000175	-.000089	.000429	.0054968	.004941	-.001346

Elem	Sr4077
Units	ppm
Avg	F -.008784
Stddev	.000039
%RSD	.4388274
#1	-.008741
#2	-.008816
#3	-.008796

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2812.530	61165.10	12876.14	2355.905	4217.764
Stddev	2.709	21.51	25.01	4.870	3.756
%RSD	.0963059	.0351734	.1942339	.2067349	.0890589
#1	2814.796	61152.84	12883.02	2351.598	4222.011
#2	2809.530	61189.94	12896.99	2361.190	4216.405
#3	2813.265	61152.51	12848.41	2354.925	4214.876

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: LLICV01 Acquired: 12/18/2024 14:58:52 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0200421	.0398770	.0113135	.0188298	.0472663	.0996647
Stddev	.0029161	.0006854	.0001409	.0010191	.0008706	.0024194
%RSD	14.54974	1.718884	1.245131	5.411999	1.841924	2.427577
#1	.0203469	.0392462	.0112355	.0182178	.0470016	.1015443
#2	.0227938	.0397784	.0112289	.0200062	.0465587	.1005149
#3	.0169856	.0406064	.0114761	.0182654	.0482385	.0969350

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0946120	.0056803	.0057021	1.919146	.0097117	.0283157
Stddev	.0004150	.0000390	.0000458	.010751	.0003484	.0001128
%RSD	.4386621	.6868159	.8033135	.5601835	3.587610	.3982048
#1	.0950585	.0056392	.0057047	1.927591	.0101005	.0282258
#2	.0945395	.0056849	.0056550	1.907044	.0096070	.0284422
#3	.0942379	.0057168	.0057465	1.922804	.0094276	.0282792

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0215067	.0958871	.0193842	2.019511	.0374733	.0099329
Stddev	.0002707	.0052965	.0000967	.012480	.0001175	.0001493
%RSD	1.258849	5.523689	.4990699	.6179844	.3135649	1.503546
#1	.0214925	.0898818	.0194056	2.014430	.0375754	.0100845
#2	.0212434	.0998924	.0192786	2.010374	.0373449	.0099282
#3	.0217843	.0978870	.0194685	2.033731	.0374995	.0097859

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.897194	.0364106	.0453978	1.897815	.0958340	.1970284
Stddev	.003846	.0015019	.0004477	.011151	.0004304	.0002580
%RSD	.2027065	4.124861	.9862015	.5875637	.4490543	.1309676
#1	1.892756	.0346831	.0449485	1.906403	.0959474	.1967993
#2	1.899538	.0374068	.0458439	1.901829	.0953583	.1973080
#3	1.899289	.0371418	.0454010	1.885213	.0961963	.1969780

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: LLICV01 Acquired: 12/18/2024 14:58:52 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0367707	.0372917	.3338336	F .0149256	F .0153315	.0174505
Stddev	.0006693	.0004456	.0044638	.0018464	.0035997	.0001471
%RSD	1.820233	1.194849	1.337139	12.37048	23.47889	.8428144
#1	.0374925	.0369978	.3389877	.0161593	.0176724	.0175840
#2	.0361706	.0378044	.3313036	.0158146	.0171357	.0174747
#3	.0366491	.0370729	.3312096	.0128029	.0111866	.0172929

Elem	Sr4077
Units	ppm
Avg	.0189139
Stddev	.0000397
%RSD	.2101346
#1	.0189589
#2	.0188989
#3	.0188838

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2862.505	62302.65	12985.13	2406.726	4390.387
Stddev	2.169	152.06	32.13	4.522	1.473
%RSD	.0757675	.2440596	.2474208	.1878803	.0335529
#1	2864.578	62148.16	12952.36	2403.698	4390.505
#2	2860.251	62452.15	13016.57	2411.924	4391.797
#3	2862.688	62307.64	12986.45	2404.557	4388.858

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: ICB01 Acquired: 12/18/2024 15:03:11 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0026136	.0012814	.0012400	-.002862	-.000849	-.000419
Stddev	.0003058	.0002518	.0001506	.000369	.000116	.001153
%RSD	11.70147	19.65284	12.14726	12.87419	13.68175	275.2920
#1	.0028691	.0012909	.0011964	-.003288	-.000903	-.001687
#2	.0026970	.0015284	.0011159	-.002656	-.000716	-.000134
#3	.0022747	.0010250	.0014076	-.002644	-.000929	.000565

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010889	.0000429	.0000340	-.019766	-.000598	.0000751
Stddev	.0001477	.0000112	.0000070	.000690	.000088	.0000363
%RSD	13.56602	26.18848	20.64977	3.489540	14.77373	48.31874
#1	.0010903	.0000503	.0000418	-.019954	-.000697	.0000450
#2	.0012360	.0000483	.0000282	-.020342	-.000573	.0001154
#3	.0009405	.0000300	.0000320	-.019002	-.000525	.0000650

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002500	-.004645	-.000158	.0036671	-.000127	-.000883
Stddev	.0000371	.000521	.000040	.0013846	.000098	.000413
%RSD	14.83036	11.21575	25.28461	37.75624	77.61459	46.80928
#1	.0002669	-.004088	-.000146	.0050162	-.000238	-.000539
#2	.0002756	-.005120	-.000126	.0022497	-.000054	-.001341
#3	.0002075	-.004725	-.000203	.0037353	-.000088	-.000768

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.129161	-.000789	-.000868	-.092756	-.003879	-.000148
Stddev	.000191	.000671	.000008	.003154	.000281	.000033
%RSD	.1478148	85.03192	.8902865	3.399793	7.238963	22.52663
#1	-.128941	-.000128	-.000874	-.091835	-.004148	-.000164
#2	-.129271	-.000770	-.000859	-.090165	-.003588	-.000109
#3	-.129272	-.001469	-.000871	-.096267	-.003901	-.000169

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: ICB01 Acquired: 12/18/2024 15:03:11 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001175	.0001799	-.027374	F -.020622	-.006081	-.002407
Stddev	.000105	.0001041	.001502	.000755	.000465	.000035
%RSD	8.932692	57.86227	5.488317	3.663585	7.642680	1.464265
#1	-.001235	.0002346	-.026935	-.019794	-.005545	-.002376
#2	-.001054	.0000599	-.029047	-.020799	-.006323	-.002400
#3	-.001236	.0002453	-.026141	-.021273	-.006373	-.002446

Elem	Sr4077
Units	ppm
Avg	-.000021
Stddev	.000003
%RSD	13.89969
#1	-.000024
#2	-.000022
#3	-.000018

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	14889.84	284719.2	37172.86	12943.47	22385.23
Stddev	11.05	11344.4	1030.08	227.95	26.67
%RSD	.0742029	3.984417	2.771061	1.761096	.1191580
#1	14877.21	292098.7	38314.90	12706.69	22354.44
#2	14894.63	271656.5	36889.74	13161.41	22400.90
#3	14897.69	290402.4	36313.95	12962.31	22400.37

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: CRI01 Acquired: 12/18/2024 15:07:39 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0204951	.0381467	.0111079	.0171740	.0472387	.0970669	.0919493
Stddev	.0001774	.0023546	.0013346	.0016347	.0007174	.0025938	.0012480
%RSD	.8656373	6.172462	12.01464	9.518447	1.518587	2.672144	1.357324
#1	.0206995	.0404096	.0114168	.0153801	.0480284	.0954495	.0916385
#2	.0203800	.0357100	.0122609	.0175625	.0466272	.0956926	.0908859
#3	.0204060	.0383205	.0096459	.0185795	.0470607	.1000587	.0933233

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055988	.0056091	1.887054	.0098173	.0280163	.0213513	.0932049
Stddev	.0000625	.0000433	.035100	.0003875	.0002459	.0004791	.0013629
%RSD	1.116097	.7726992	1.860039	3.947509	.8778740	2.244026	1.462280
#1	.0056419	.0055648	1.869971	.0096269	.0278600	.0211983	.0947782
#2	.0055271	.0056514	1.863766	.0095618	.0278891	.0209673	.0924502
#3	.0056273	.0056110	1.927425	.0102632	.0282998	.0218882	.0923863

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0192686	1.987727	.0371311	.0097899	1.877232	.0353994	.0449178
Stddev	.0002823	.028867	.0005490	.0001816	.009718	.0007323	.0002439
%RSD	1.465202	1.452279	1.478660	1.855374	.5176699	2.068758	.5430463
#1	.0193827	1.966522	.0367364	.0098584	1.873967	.0350927	.0448775
#2	.0189470	1.976056	.0368986	.0099273	1.869567	.0348703	.0446965
#3	.0194759	2.020603	.0377581	.0095840	1.888162	.0362352	.0451793

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.892402	.0939263	.1959000	.0369980	.0369724	.3311491	.0142085
Stddev	.019023	.0019024	.0013070	.0005797	.0003715	.0019848	.0010077
%RSD	1.005223	2.025458	.6671547	1.566889	1.004715	.5993835	7.092363
#1	1.871577	.0931868	.1949715	.0364845	.0367342	.3304960	.0139263
#2	1.908864	.0925047	.1953339	.0368827	.0367826	.3333782	.0133719
#3	1.896766	.0960875	.1973946	.0376267	.0374004	.3295730	.0153272

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: CRI01 Acquired: 12/18/2024 15:07:39 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0169703	.0176787	.0188398
Stddev	.0025003	.0006582	.0002730
%RSD	14.73361	3.723297	1.449189
#1	.0166887	.0176056	.0187723
#2	.0146227	.0170601	.0186068
#3	.0195995	.0183705	.0191402

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2878.871	62882.19	13040.75	2428.977	4434.715
Stddev	17.190	67.80	133.95	7.363	25.409
%RSD	.5971101	.1078268	1.027190	.3031122	.5729494
#1	2881.603	62805.87	13054.74	2435.734	4445.441
#2	2894.531	62905.23	13167.16	2430.067	4453.000
#3	2860.478	62935.47	12900.35	2421.130	4405.701

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: ICSA01 Acquired: 12/18/2024 15:11:57 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0032775	.0097187	.0069376	-.011668	-.000322	244.4477
Stddev	.0012076	.0025173	.0004536	.002529	.002004	.5205
%RSD	36.84513	25.90108	6.538126	21.67245	622.3289	.2129153
#1	.0046340	.0125717	.0071664	-.009093	.001809	244.7359
#2	.0028791	.0087740	.0072312	-.014148	-.002169	244.7604
#3	.0023195	.0078105	.0064152	-.011764	-.000606	243.8469

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0045197	.0013037	.0025423	229.9465	.0571071	.0016847
Stddev	.0004062	.0000325	.0000429	.3713	.0003964	.0001207
%RSD	8.987563	2.495553	1.687241	.1614845	.6941379	7.166944
#1	.0043171	.0012970	.0025176	230.1301	.0575645	.0016959
#2	.0042546	.0013391	.0025918	230.1902	.0568623	.0017994
#3	.0049873	.0012751	.0025174	229.5191	.0568946	.0015587

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001578	101.5975	.0054961	250.9619	.0021367	-.006573
Stddev	.000436	.0308	.0001608	.3283	.0004006	.000625
%RSD	27.59751	.0302839	2.925325	.1308272	18.74920	9.502766
#1	-.002054	101.5626	.0055569	250.9685	.0025130	-.006199
#2	-.001482	101.6091	.0053137	251.2870	.0021815	-.007294
#3	-.001199	101.6207	.0056175	250.6304	.0017155	-.006227

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0701741	.0064258	.0052074	.0998275	.0419867	.0007924
Stddev	.0186151	.0006946	.0003297	.0059719	.0005238	.0003106
%RSD	26.52710	10.80890	6.330747	5.982249	1.247568	39.20153
#1	.0569606	.0059636	.0055861	.1043021	.0414397	.0009613
#2	.0620982	.0060892	.0050510	.1021342	.0420365	.0009821
#3	.0914633	.0072245	.0049850	.0930462	.0424838	.0004339

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: ICSA01 Acquired: 12/18/2024 15:11:57 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001560	-.001344	.0162505	-.000608	-.019906	F -.037661
Stddev	.000562	.000657	.0033910	.004361	.001703	.000635
%RSD	36.03696	48.92553	20.86715	717.6226	8.556714	1.686132
#1	-.001305	-.002004	.0124077	-.000504	-.021271	-.038011
#2	-.002204	-.001337	.0188228	.003700	-.020449	-.038043
#3	-.001170	-.000690	.0175210	-.005019	-.017997	-.036928

Elem	Sr4077
Units	ppm
Avg	-.003592
Stddev	.000130
%RSD	3.626162
#1	-.003442
#2	-.003662
#3	-.003672

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2444.994	52932.01	12270.74	2044.027	3391.844
Stddev	6.538	76.01	31.24	12.750	4.470
%RSD	.2674230	.1436076	.2545654	.6237708	.1317852
#1	2439.010	52857.87	12241.54	2032.072	3387.801
#2	2451.973	53009.77	12267.00	2057.445	3396.644
#3	2443.998	52928.39	12303.67	2042.565	3391.087

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: ICSAB01 Acquired: 12/18/2024 15:23:22 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1060677	.0942565	.0523098	.0311863	.5958774	241.2968
Stddev	.0014701	.0014502	.0016538	.0023470	.0040596	2.8403
%RSD	1.385981	1.538531	3.161649	7.525693	.6812786	1.177110
#1	.1056952	.0935856	.0528905	.0304805	.5912727	238.3642
#2	.1076881	.0932632	.0504439	.0338052	.5989398	241.4914
#3	.1048196	.0959206	.0535950	.0292733	.5974197	244.0349

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4885545	.4796557	.9752357	227.5544	.5600732	.4922218
Stddev	.0060543	.0060866	.0038358	2.8970	.0003410	.0022555
%RSD	1.239226	1.268950	.3933188	1.273112	.0608823	.4582175
#1	.4816247	.4726905	.9708990	224.2797	.5597278	.4896825
#2	.4928177	.4839514	.9766244	229.7833	.5600822	.4929906
#3	.4912212	.4823252	.9781837	228.6002	.5604096	.4939923

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4660307	98.60430	.4798975	248.7000	.9663831	.1876250
Stddev	.0027958	.18119	.0078510	3.3209	.0038696	.0001069
%RSD	.5999217	.1837542	1.635983	1.335300	.4004215	.0569921
#1	.4631342	98.58042	.4710601	245.0060	.9619844	.1877304
#2	.4687136	98.43624	.4860666	251.4381	.9679020	.1876280
#3	.4662442	98.79625	.4825659	249.6559	.9692627	.1875166

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0660707	.4744010	1.048988	.0664430	F .0394818	F .0006300
Stddev	.0187756	.0073831	.002381	.0013915	.0012745	.0006465
%RSD	28.41740	1.556291	.2269514	2.094342	3.228160	102.6204
#1	.0465821	.4660424	1.051695	.0670937	.0409273	.0013276
#2	.0675888	.4800326	1.048046	.0648453	.0389989	.0005110
#3	.0840411	.4771282	1.047222	.0673900	.0385194	.0000512

Sample Name: ICSAB01 Acquired: 12/18/2024 15:23:22 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F -.000683	F -.002283	F -.002530	F .0094059	F -.014405	F -.037712
Stddev	.000271	.000245	.005392	.0023841	.004504	.000701
%RSD	39.71200	10.72488	213.1151	25.34648	31.26711	1.857697
#1	-.000573	-.002375	.003521	.0113773	-.012215	-.037611
#2	-.000484	-.002468	-.004286	.0067562	-.011414	-.038458
#3	-.000992	-.002005	-.006826	.0100843	-.019585	-.037068

Elem	Sr4077
Units	ppm
Avg	F -.001693
Stddev	.001578
%RSD	93.22324
#1	-.003396
#2	-.000280
#3	-.001403

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2484.421	53700.88	12072.77	2064.112	3460.192
Stddev	9.269	50.40	136.15	5.190	9.434
%RSD	.3730779	.0938468	1.127762	.2514208	.2726428
#1	2492.156	53642.79	12222.46	2060.017	3470.495
#2	2474.148	53726.96	11956.31	2062.370	3451.977
#3	2486.960	53732.89	12039.54	2069.948	3458.104

Sample Name: CCV01 Acquired: 12/18/2024 15:27:42 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.820868	4.788816	4.836117	4.860584	4.866697	9.859753	9.883324
Stddev	.005214	.058324	.024687	.013423	.005712	.038908	.148172
%RSD	.1081629	1.217924	.5104800	.2761645	.1173748	.3946150	1.499212
#1	4.826220	4.831462	4.862691	4.875456	4.863363	9.892803	10.00275
#2	4.820580	4.812634	4.831765	4.856929	4.863436	9.869582	9.92972
#3	4.815803	4.722352	4.813895	4.849366	4.873293	9.816872	9.71751

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2493343	2.423878	24.75563	1.000003	2.416715	1.228264	4.968629
Stddev	.0017096	.011659	.12700	.000675	.011059	.001059	.018107
%RSD	.6856618	.4810027	.5130084	.0675249	.4575880	.0862558	.3644290
#1	.2502480	2.435390	24.87385	1.000774	2.427241	1.228535	4.973412
#2	.2503930	2.424166	24.77166	.999715	2.417713	1.227095	4.983865
#3	.2473621	2.412077	24.62138	.999519	2.405191	1.229162	4.948611

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.482152	24.79505	2.423311	1.241607	24.64412	2.477178	2.493286
Stddev	.008143	.07900	.010090	.001807	.03407	.016084	.015069
%RSD	.3280437	.3186282	.4163879	.1455010	.1382309	.6492976	.6043761
#1	2.490771	24.86399	2.432819	1.241089	24.68290	2.493015	2.486704
#2	2.481095	24.81234	2.424388	1.243616	24.61905	2.477661	2.510526
#3	2.474589	24.70884	2.412725	1.240116	24.63041	2.460857	2.482628

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.53364	4.965173	4.867020	4.839958	4.912721	4.852906	4.767191
Stddev	.05514	.037527	.011062	.027723	.031578	.024388	.038946
%RSD	.2247417	.7558037	.2272795	.5727971	.6427806	.5025540	.8169635
#1	24.59458	4.991484	4.876874	4.864674	4.940060	4.845580	4.794171
#2	24.48721	4.981836	4.869131	4.845219	4.919947	4.833020	4.784860
#3	24.51912	4.922201	4.855055	4.809981	4.878157	4.880118	4.722542

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: CCV01 Acquired: 12/18/2024 15:27:42 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.768283	4.911701	5.018911
Stddev	.029714	.031900	.040405
%RSD	.6231509	.6494779	.8050546
#1	4.796141	4.936518	5.060541
#2	4.771700	4.922868	5.016337
#3	4.737009	4.875719	4.979854

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2640.056	58337.11	11761.24	2217.394	3827.925
Stddev	.720	75.97	90.59	12.181	8.533
%RSD	.0272654	.1302271	.7702757	.5493592	.2229031
#1	2640.887	58254.49	11683.72	2217.968	3821.949
#2	2639.642	58352.86	11739.17	2204.936	3824.128
#3	2639.639	58403.97	11860.83	2229.279	3837.697

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: CCB01 Acquired: 12/18/2024 15:31:54 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0010370	-.000249	-.000219	.0024406	.0017553	.0031341	-.000261
Stddev	.0011837	.001430	.000330	.0005394	.0008522	.0072489	.000400
%RSD	114.1405	574.5695	150.7280	22.10189	48.55158	231.2873	153.3615
#1	.0004167	.001402	-.000550	.0029725	.0019956	-.000101	-.000619
#2	.0024019	-.001107	-.000215	.0018939	.0024616	.011437	.000170
#3	.0002924	-.001041	.000109	.0024555	.0008087	-.001934	-.000333

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000006	.0000115	.0736007	.0000845	.0001680	.0001850	.0001869
Stddev	.000037	.0000547	.0060751	.0003935	.0001440	.0001840	.0017108
%RSD	651.2695	477.4641	8.254070	465.5715	85.68718	99.48862	915.2053
#1	-.000025	-.000025	.0801594	-.000228	.0001409	.0000548	.0018256
#2	-.000029	.000074	.0681664	.000526	.0000396	.0001046	-.001588
#3	.000037	-.000015	.0724762	-.000045	.0003237	.0003955	.000323

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000051	.0003606	.0001455	-.000055	.0297580	-.000338	.0075613
Stddev	.000187	.0072200	.0002735	.000266	.0137948	.000383	.0001863
%RSD	368.9149	2002.173	188.0159	479.8741	46.35671	113.1647	2.463191
#1	-.000263	-.002249	.0000170	.000145	.0151314	-.000437	.0074067
#2	.000023	.008523	.0004596	.000046	.0316083	-.000663	.0077681
#3	.000089	-.005192	-.000040	-.000357	.0425343	.000084	.0075092

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0362051	.0023947	.0005084	-.000101	.0001325	-.002577	-.000164
Stddev	.0349700	.0002605	.0001072	.000567	.0002876	.007545	.001706
%RSD	96.58872	10.87614	21.08702	560.1267	217.0809	292.7839	1041.785
#1	-.003979	.0021800	.0006307	.000537	.0002575	.001868	.000984
#2	.059737	.0026844	.0004639	-.000548	-.000196	.001690	.000649
#3	.052857	.0023196	.0004306	-.000293	.000336	-.011289	-.002124

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: CCB01 Acquired: 12/18/2024 15:31:54 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001903	-.000066	.0001272
Stddev	.000459	.000260	.0000202
%RSD	24.11789	394.4549	15.86691
#1	-.001673	-.000365	.0001438
#2	-.002432	.000057	.0001047
#3	-.001605	.000110	.0001330

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2675.647	60065.56	13012.18	2304.245	4166.008
Stddev	7.118	314.32	14.40	7.568	17.983
%RSD	.2660438	.5232990	.1106957	.3284410	.4316646
#1	2680.882	60420.01	13025.33	2311.849	4181.547
#2	2678.516	59955.96	13014.43	2296.713	4170.167
#3	2667.541	59820.71	12996.79	2304.173	4146.309

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: PB165714BL Acquired: 12/18/2024 15:36:15 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001718	-.000739	-.000761	.0013614	.0001674	.0043509	-.000539
Stddev	.000710	.001142	.000129	.0023664	.0013637	.0032455	.000388
%RSD	41.33416	154.5791	16.97946	173.8219	814.7289	74.59460	71.91411
#1	-.002461	.000493	-.000893	-.001113	-.000415	.0075133	-.000924
#2	-.001647	-.001763	-.000754	.001595	.001726	.0045111	-.000544
#3	-.001046	-.000946	-.000635	.003603	-.000808	.0010282	-.000149

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000137	-.000010	-.004341	-.000254	.0000650	.0001068	.0017033
Stddev	.0000340	.000031	.001517	.000067	.0001934	.0001317	.0020493
%RSD	248.7372	298.0263	34.94074	26.42658	297.5951	123.2262	120.3109
#1	-.000019	.000000	-.003115	-.000291	-.000103	.0002087	.0013027
#2	.000049	.000014	-.003870	-.000176	.000022	-.000042	-.000116
#3	.000010	-.000045	-.006037	-.000294	.000276	.000154	.003923

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000134	.0022721	-.000074	.0003461	.0337911	-.001437	-.000062
Stddev	.000075	.0060316	.000291	.0001253	.0113369	.001086	.000066
%RSD	56.08909	265.4641	394.6447	36.21260	33.55001	75.58837	106.7450
#1	-.000194	.0006092	-.000410	.0004890	.0237811	-.001055	.000014
#2	-.000157	.0089607	.000107	.0002547	.0314903	-.000593	-.000108
#3	-.000050	-.002754	.000082	.0002946	.0461020	-.002663	-.000091

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0123211	.0003214	.0000276	-.000238	.0003438	-.003338	-.002592
Stddev	.0284123	.0002476	.0001160	.000499	.0002656	.001549	.000471
%RSD	230.5984	77.04190	421.0485	209.2127	77.26601	46.41164	18.18900
#1	-.019221	.0002253	.0000025	-.000360	.0000641	-.003262	-.002059
#2	.035907	.0006026	.0001541	-.000665	.0003745	-.001828	-.002759
#3	.020277	.0001362	-.000074	.000310	.0005927	-.004924	-.002956

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: PB165714BL Acquired: 12/18/2024 15:36:15 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.002441	-.000932	-.000020
Stddev	.004385	.000678	.000029
%RSD	179.6037	72.69571	147.1497
#1	-.003355	-.000451	-.000018
#2	.002328	-.000639	.000008
#3	-.006298	-.001707	-.000049

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2741.971	60553.01	12897.35	2327.607	4298.030
Stddev	11.797	355.06	27.38	8.622	16.997
%RSD	.4302324	.5863680	.2122665	.3704364	.3954683
#1	2730.999	60865.62	12921.92	2332.226	4284.708
#2	2740.467	60626.42	12867.83	2317.659	4292.209
#3	2754.448	60166.97	12902.29	2332.935	4317.173

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: PB165714BS Acquired: 12/18/2024 15:40:36 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8126336	2.026204	1.006055	1.991120	.7895206	1.971135
Stddev	.0018277	.039676	.002511	.012185	.0049445	.006552
%RSD	.2249042	1.958146	.2495616	.6119462	.6262684	.3324191
#1	.8145211	2.070285	1.005660	2.003535	.7948004	1.964395
#2	.8125075	1.993355	1.008740	1.979180	.7887627	1.977483
#3	.8108723	2.014971	1.003766	1.990645	.7849988	1.971526

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2005399	.2023458	.1991526	1.053694	.4217236	.2024950
Stddev	.0008697	.0005680	.0003390	.003512	.0009455	.0001947
%RSD	.4336714	.2806866	.1702389	.3332889	.2241971	.0961286
#1	.2012191	.2021101	.1994259	1.050231	.4228063	.2023762
#2	.2008409	.2029937	.1992588	1.057252	.4210610	.2027197
#3	.1995597	.2019337	.1987732	1.053600	.4213035	.2023891

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3189618	3.161501	.2069734	1.983677	.5081265	.0792367
Stddev	.0012757	.008850	.0004930	.010634	.0001803	.0003065
%RSD	.3999437	.2799153	.2381963	.5360718	.0354807	.3868328
#1	.3201467	3.162119	.2064246	1.972564	.5083188	.0795894
#2	.3191272	3.152358	.2071171	1.993756	.5079612	.0790351
#3	.3176115	3.170025	.2073786	1.984713	.5080995	.0790855

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.099476	.3014270	.2144468	10.01118	.2987773	.4057100
Stddev	.005103	.0017165	.0006526	.00952	.0010953	.0005337
%RSD	.1646397	.5694445	.3043098	.0950871	.3666119	.1315419
#1	3.103408	.3026721	.2151370	10.01301	.2976238	.4063055
#2	3.101310	.3021400	.2138399	10.01966	.2998033	.4052750
#3	3.093709	.2994690	.2143636	10.00088	.2989049	.4055496

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: PB165714BS Acquired: 12/18/2024 15:40:36 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6876005	.1966370	.7481734	5.619962	F -.012169	.2062162
Stddev	.0025521	.0005426	.0018682	.026407	.004591	.0003752
%RSD	.3711552	.2759405	.2496964	.4698735	37.72876	.1819525
#1	.6899512	.1961028	.7496926	5.647677	-.006920	.2066470
#2	.6879643	.1971876	.7487402	5.595094	-.014146	.2059607
#3	.6848861	.1966207	.7460875	5.617115	-.015439	.2060410

Elem	Sr4077
Units	ppm
Avg	.2039302
Stddev	.0002357
%RSD	.1155965
#1	.2041982
#2	.2038373
#3	.2037551

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2677.519	59128.99	12200.90	2260.473	4063.201
Stddev	8.341	145.05	33.94	2.498	9.542
%RSD	.3115088	.2453083	.2781994	.1104963	.2348341
#1	2668.433	58976.39	12179.45	2259.170	4053.614
#2	2679.296	59145.53	12183.23	2263.353	4063.291
#3	2684.827	59265.07	12240.04	2258.896	4072.697

Sample Name: P5313-01 Acquired: 12/18/2024 15:44:36 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003296	-.009341	.0010007	.0052971	.0002309	.9121758
Stddev	.002633	.002367	.0004841	.0005133	.0004103	.0219316
%RSD	79.89304	25.34526	48.37624	9.690990	177.7328	2.404320
#1	-.004863	-.009223	.0005926	.0047438	.0004474	.9370198
#2	-.000256	-.011764	.0008740	.0057580	-.000242	.8955020
#3	-.004768	-.007034	.0015356	.0053895	.000488	.9040056

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0897849	-.000118	.0003885	128.8045	.0132174	.0010041
Stddev	.0025533	.000014	.0001431	4.1112	.0006145	.0000598
%RSD	2.843743	11.54938	36.82145	3.191849	4.648998	5.955753
#1	.0924628	-.000128	.0002307	133.2887	.0125379	.0010716
#2	.0873779	-.000124	.0004253	125.2129	.0133801	.0009579
#3	.0895139	-.000103	.0005097	127.9119	.0137341	.0009827

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0204984	1.027042	.2164017	21.46061	.0073047	-.000366
Stddev	.0002757	.008861	.0076122	.74586	.0002854	.000260
%RSD	1.345148	.8628182	3.517635	3.475479	3.906809	70.95274
#1	.0203358	1.028819	.2246371	22.29912	.0074646	-.000414
#2	.0203426	1.017426	.2096233	20.87111	.0069752	-.000599
#3	.0208167	1.034880	.2149447	21.21160	.0074743	-.000086

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	196.6727	.0111227	.1791007	12.61167	.9960015	.0160434
Stddev	3.1627	.0001390	.0009487	.06075	.0279340	.0001110
%RSD	1.608091	1.249308	.5297139	.4817219	2.804615	.6919695
#1	193.4662	.0111840	.1780143	12.62283	1.027326	.0160642
#2	196.7623	.0109637	.1795214	12.54611	.973676	.0161426
#3	199.7896	.0112205	.1797662	12.66606	.987003	.0159235

Sample Name: P5313-01 Acquired: 12/18/2024 15:44:36 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001882	.0247658	F 11.03305	.0550708	F 131.0463	-.009397
Stddev	.000936	.0002965	.06770	.0016711	.1821	.000553
%RSD	49.74406	1.197044	.6136190	3.034389	.1389315	5.888632
#1	-.000958	.0250798	11.03767	.0534721	130.9659	-.009421
#2	-.002830	.0247269	10.96315	.0568058	130.9182	-.009938
#3	-.001857	.0244907	11.09831	.0549345	131.2547	-.008832

Elem	Sr4077
Units	ppm
Avg	.8775673
Stddev	.0256736
%RSD	2.925545
#1	.9050700
#2	.8542329
#3	.8733991

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2439.574	54889.54	12479.71	2074.271	3606.920
Stddev	22.350	265.48	359.84	18.334	13.366
%RSD	.9161272	.4836622	2.883430	.8839004	.3705541
#1	2423.393	54955.22	12085.77	2081.766	3593.555
#2	2430.253	55116.01	12791.12	2087.670	3606.916
#3	2465.075	54597.38	12562.25	2053.376	3620.287

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5313-01DUP Acquired: 12/18/2024 15:49:06 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003897	-.007950	.0000275	.0020021	.0007246	.9153846
Stddev	.003571	.002519	.0002183	.0027025	.0012258	.0079211
%RSD	91.64077	31.68702	794.3120	134.9786	169.1817	.8653263
#1	-.000696	-.009319	-.000013	.0016768	.0000826	.9189564
#2	-.003246	-.009488	.000263	.0048525	-.000047	.9208907
#3	-.007749	-.005043	-.000168	-.000523	.002138	.9063065

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0909137	-.000095	.0003012	129.2671	.0130391	.0011015
Stddev	.0011684	.000058	.0000738	.3792	.0000834	.0001318
%RSD	1.285203	60.65875	24.49247	.2933304	.6395732	11.96684
#1	.0896283	-.000130	.0003452	128.8595	.0131353	.0012497
#2	.0912013	-.000126	.0002160	129.6093	.0129874	.0010575
#3	.0919114	-.000028	.0003422	129.3326	.0129947	.0009974

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0203585	1.020195	.2159538	21.57800	.0073656	-.000544
Stddev	.0003648	.018689	.0006304	.04713	.0002329	.000248
%RSD	1.791969	1.831947	.2918986	.2184017	3.162163	45.62208
#1	.0201369	1.001485	.2160962	21.53728	.0076141	-.000624
#2	.0201591	1.038863	.2165008	21.62963	.0071522	-.000743
#3	.0207796	1.020237	.2152644	21.56710	.0073307	-.000266

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	196.6555	.0109269	.1789683	12.48316	1.000024	.0162642
Stddev	.9754	.0003829	.0009599	.11213	.002386	.0002937
%RSD	.4959783	3.504227	.5363628	.8982224	.2386309	1.805549
#1	195.8546	.0113164	.1780647	12.35484	.999672	.0165578
#2	196.3702	.0109134	.1799761	12.53237	1.002567	.0159705
#3	197.7417	.0105509	.1788641	12.56226	.997834	.0162644

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5313-01DUP Acquired: 12/18/2024 15:49:06 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002368	.0254906	F 10.94451	.0527200	F 131.3977	-.009910
Stddev	.001344	.0011903	.07603	.0011302	.8999	.000086
%RSD	56.76705	4.669423	.6946615	2.143819	.6848771	.8655145
#1	-.003905	.0260430	10.85733	.0538143	132.4359	-.010009
#2	-.001789	.0263043	10.97920	.0527885	130.8394	-.009866
#3	-.001410	.0241245	10.99701	.0515570	130.9179	-.009855

Elem	Sr4077
Units	ppm
Avg	.8748261
Stddev	.0067666
%RSD	.7734852
#1	.8771050
#2	.8672143
#3	.8801592

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2459.355	55022.09	12432.70	2088.401	3617.445
Stddev	2.168	280.27	24.06	18.611	9.690
%RSD	.0881632	.5093810	.1934937	.8911802	.2678629
#1	2458.554	55345.05	12439.32	2104.207	3606.338
#2	2457.701	54878.67	12406.03	2093.108	3621.823
#3	2461.809	54842.55	12452.75	2067.888	3624.172

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5313-01LX5 Acquired: 12/18/2024 15:53:37 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000636	-.001457	-.000233	.0006949	-.000852	.1873778
Stddev	.000692	.000883	.000759	.0026311	.000581	.0065926
%RSD	108.7878	60.59186	325.4354	378.6516	68.20641	3.518349
#1	.000129	-.000487	-.000318	-.002339	-.001227	.1841764
#2	-.001218	-.002214	-.000947	.002076	-.001147	.1829972
#3	-.000819	-.001670	.000565	.002348	-.000183	.1949597

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0181869	-.000025	.0000607	26.03160	.0023154	.0001401
Stddev	.0001469	.000065	.0000869	.11260	.0002338	.0003515
%RSD	.8077055	262.6423	143.0617	.4325508	10.09763	250.8536
#1	.0182253	-.000074	.0000748	25.97597	.0022884	.0000223
#2	.0183107	-.000049	-.000032	25.95764	.0020962	.0005354
#3	.0180246	.000049	.000140	26.16119	.0025615	-.000137

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0041044	.2013216	.0437343	4.352314	.0013709	.0000614
Stddev	.0002846	.0030656	.0001799	.010434	.0002166	.0002231
%RSD	6.934154	1.522760	.4113062	.2397400	15.79618	363.4921
#1	.0042566	.2045825	.0439380	4.349871	.0012853	-.000127
#2	.0037760	.2008841	.0436674	4.343318	.0012102	.000308
#3	.0042805	.1984982	.0435973	4.363753	.0016172	.000004

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	37.14424	.0018709	.0349864	2.326325	.2188679	.0030670
Stddev	.09769	.0014976	.0003181	.039709	.0010447	.0002194
%RSD	.2629948	80.04583	.9091677	1.706922	.4773201	7.155170
#1	37.03151	.0008941	.0347244	2.288772	.2200056	.0029926
#2	37.20399	.0035950	.0348945	2.322318	.2179517	.0033139
#3	37.19723	.0011235	.0353403	2.367885	.2186463	.0028943

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5313-01LX5 Acquired: 12/18/2024 15:53:37 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001051	.0056468	2.087070	.0069822	F 25.87087	-.000761
Stddev	.000918	.0005366	.010271	.0056613	.05191	.000335
%RSD	87.33314	9.503530	.4921020	81.08211	.2006664	44.08793
#1	-.001813	.0052997	2.078664	.0008191	25.92723	-.001147
#2	-.001310	.0053758	2.098518	.0081762	25.86040	-.000586
#3	-.000032	.0062649	2.084027	.0119513	25.82499	-.000548

Elem	Sr4077
Units	ppm
Avg	.1758836
Stddev	.0007644
%RSD	.4346042
#1	.1752631
#2	.1756503
#3	.1767375

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2697.391	58953.54	12788.64	2253.932	4071.002
Stddev	5.671	58.50	23.26	8.505	3.204
%RSD	.2102420	.0992317	.1818444	.3773418	.0786928
#1	2695.989	58942.64	12768.49	2261.601	4068.901
#2	2692.552	58901.25	12814.09	2244.785	4069.416
#3	2703.631	59016.72	12783.33	2255.410	4074.690

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5313-01MS Acquired: 12/18/2024 15:57:54 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8561787	1.840492	.9489888	2.016205	.8392171	3.008933
Stddev	.0086940	.023594	.0064225	.021227	.0073437	.017200
%RSD	1.015446	1.281956	.6767724	1.052801	.8750714	.5716273
#1	.8490996	1.854779	.9551213	1.995982	.8315891	3.028705
#2	.8535536	1.813259	.9423110	2.014324	.8398231	3.000668
#3	.8658827	1.853438	.9495341	2.038310	.8462390	2.997425

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2914093	.1933625	.1979911	132.6937	.4359785	.2031103
Stddev	.0018800	.0004887	.0014021	.4665	.0005635	.0009689
%RSD	.6451269	.2527370	.7081780	.3515878	.1292553	.4770307
#1	.2935773	.1938087	.1987169	133.1320	.4353529	.2037251
#2	.2904210	.1928402	.1963749	132.2033	.4361364	.2019934
#3	.2902296	.1934386	.1988816	132.7456	.4364462	.2036124

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3201766	4.327266	.4346721	24.02018	.5025499	.0813893
Stddev	.0020807	.017008	.0008650	.08081	.0035422	.0006033
%RSD	.6498660	.3930503	.1989934	.3364378	.7048445	.7411904
#1	.3182512	4.341476	.4350809	24.03771	.5045273	.0819728
#2	.3198948	4.308420	.4336785	23.93204	.4984605	.0814272
#3	.3223839	4.331902	.4352568	24.09079	.5046620	.0807681

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	203.0896	.3211861	.4000994	24.05759	1.262551	.4550650
Stddev	2.2145	.0015999	.0017289	.10544	.004335	.0036034
%RSD	1.090387	.4981317	.4321174	.4383007	.3433193	.7918492
#1	205.2557	.3224976	.4016945	24.14603	1.267484	.4528942
#2	203.1833	.3194035	.3982622	24.08585	1.259351	.4530763
#3	200.8297	.3216571	.4003414	23.94090	1.260818	.4592246

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5313-01MS Acquired: 12/18/2024 15:57:54 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6989717	.2315655	F 12.09201	6.020712	F 127.6685	.2055146
Stddev	.0047098	.0032106	.01974	.047744	1.0111	.0020120
%RSD	.6738160	1.386497	.1632126	.7929977	.7919740	.9790223
#1	.7021803	.2326757	12.07398	6.015767	127.9790	.2075951
#2	.6935647	.2279471	12.11310	5.975632	126.5385	.2053697
#3	.7011702	.2340737	12.08896	6.070735	128.4879	.2035789

Elem	Sr4077
Units	ppm
Avg	1.115918
Stddev	.012813
%RSD	1.148245
#1	1.130698
#2	1.107939
#3	1.109116

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2496.897	54655.99	12229.70	2104.337	3676.813
Stddev	18.288	124.83	56.35	15.254	18.994
%RSD	.7324219	.2283911	.4607904	.7248686	.5165950
#1	2513.837	54530.51	12172.62	2086.773	3683.027
#2	2499.344	54657.30	12285.30	2111.987	3691.923
#3	2477.508	54780.16	12231.19	2114.253	3655.491

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5313-01MSD Acquired: 12/18/2024 16:02:09 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8684263	1.886964	.9726296	2.049613	.8520329	3.035327
Stddev	.0020045	.007886	.0039921	.004355	.0035094	.024375
%RSD	.2308255	.4179249	.4104477	.2124586	.4118829	.8030584
#1	.8681720	1.895790	.9755866	2.050149	.8532155	3.007477
#2	.8705458	1.880612	.9742137	2.045015	.8480850	3.052779
#3	.8665610	1.884490	.9680885	2.053674	.8547982	3.045726

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2920642	.1988590	.2032840	134.4644	.4436073	.2078601
Stddev	.0024287	.0021260	.0010708	1.0223	.0030602	.0007088
%RSD	.8315567	1.069088	.5267629	.7602976	.6898419	.3410022
#1	.2896350	.1968906	.2042852	133.4556	.4413033	.2084772
#2	.2944923	.1985727	.2034117	134.4380	.4424392	.2080171
#3	.2920653	.2011136	.2021550	135.4997	.4470795	.2070859

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3269979	4.376576	.4388153	24.52879	.5160735	.0830133
Stddev	.0007866	.011100	.0026314	.22862	.0018727	.0005757
%RSD	.2405614	.2536290	.5996648	.9320627	.3628831	.6934444
#1	.3278640	4.364648	.4363184	24.35805	.5177324	.0835950
#2	.3263277	4.386603	.4385643	24.43979	.5164453	.0824439
#3	.3268019	4.378475	.4415633	24.78853	.5140427	.0830012

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	200.6106	.3247571	.4082882	23.92339	1.302101	.4595142
Stddev	2.1734	.0033259	.0007335	.17213	.011045	.0007320
%RSD	1.083371	1.024120	.1796526	.7195252	.8482606	.1592946
#1	198.2576	.3210981	.4091317	23.88645	1.292899	.4599805
#2	202.5427	.3255765	.4078009	24.11100	1.299054	.4586706
#3	201.0316	.3275967	.4079318	23.77272	1.314349	.4598916

Sample Name: P5313-01MSD Acquired: 12/18/2024 16:02:09 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7164021	.2334910	F 12.12149	6.292665	F 132.1681	.2041658
Stddev	.0051859	.0018356	.05479	.010955	.2816	.0015772
%RSD	.7238847	.7861592	.4519757	.1740843	.2130505	.7725221
#1	.7207585	.2314033	12.06230	6.305313	132.4292	.2031699
#2	.7177821	.2342182	12.17043	6.286190	132.2053	.2059842
#3	.7106658	.2348517	12.13175	6.286492	131.8698	.2033431

Elem	Sr4077
Units	ppm
Avg	1.107932
Stddev	.015638
%RSD	1.411461
#1	1.091088
#2	1.121989
#3	1.110718

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2468.252	54179.38	12003.71	2076.115	3610.020
Stddev	6.583	53.30	91.74	10.026	9.259
%RSD	.2667153	.0983701	.7642447	.4829352	.2564749
#1	2463.661	54229.05	12080.97	2064.637	3599.383
#2	2475.794	54186.00	12027.84	2080.543	3614.412
#3	2465.300	54123.08	11902.32	2083.165	3616.265

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5313-01A Acquired: 12/18/2024 16:06:23 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8721953	1.813224	.9479007	2.064039	.8546141	2.964713
Stddev	.0158684	.029395	.0052771	.029804	.0127815	.019900
%RSD	1.819361	1.621165	.5567094	1.443988	1.495583	.6712383
#1	.8835470	1.836949	.9532342	2.085258	.8635611	2.982954
#2	.8789757	1.822382	.9477858	2.076896	.8603057	2.943490
#3	.8540631	1.780339	.9426820	2.029965	.8399755	2.967694

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2907010	.1943972	.1984230	131.3175	.4440351	.2036095
Stddev	.0026515	.0003543	.0014401	.6177	.0207459	.0016915
%RSD	.9120902	.1822292	.7257554	.4703516	4.672138	.8307520
#1	.2936362	.1947122	.1998825	132.0240	.4266714	.2053115
#2	.2884793	.1940137	.1983832	130.8799	.4384247	.2035882
#3	.2899876	.1944657	.1970032	131.0484	.4670093	.2019287

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3261001	4.468459	.4257091	23.78710	.5061318	.0841920
Stddev	.0039421	.190444	.0019507	.04198	.0040616	.0039110
%RSD	1.208857	4.261958	.4582307	.1764686	.8024717	4.645305
#1	.3289782	4.330372	.4279401	23.83556	.5101048	.0813195
#2	.3277151	4.389286	.4248628	23.76210	.5063035	.0826105
#3	.3216070	4.685718	.4243245	23.76364	.5019871	.0886461

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	203.2922	.3179800	.4155576	24.40600	1.287254	.4567079
Stddev	8.1608	.0027807	.0176852	1.07520	.000669	.0046813
%RSD	4.014301	.8745059	4.255783	4.405477	.0519643	1.025002
#1	195.8007	.3209603	.4019513	23.63835	1.288010	.4605702
#2	202.0876	.3175250	.4091728	23.94479	1.286736	.4580518
#3	211.9883	.3154549	.4355486	25.63487	1.287017	.4515016

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5313-01A Acquired: 12/18/2024 16:06:23 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6989951	.2310268	F 12.20374	6.069704	F 129.9632	.2040394
Stddev	.0043393	.0023879	.52130	.084245	1.3590	.0021836
%RSD	.6207838	1.033603	4.271661	1.387958	1.045693	1.070192
#1	.7034794	.2337249	11.81459	6.146032	131.2214	.2056490
#2	.6986888	.2291855	12.00059	6.083768	130.1463	.2015538
#3	.6948171	.2301700	12.79603	5.979313	128.5219	.2049155

Elem	Sr4077
Units	ppm
Avg	1.094563
Stddev	.005701
%RSD	.5208046
#1	1.101110
#2	1.091881
#3	1.090699

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2449.234	53785.13	12249.18	2009.864	3617.248
Stddev	37.386	2256.62	60.73	75.209	48.502
%RSD	1.526422	4.195614	.4957581	3.741986	1.340860
#1	2422.034	55674.75	12184.96	2069.748	3576.262
#2	2433.802	54394.13	12256.90	2034.389	3604.686
#3	2491.865	51286.51	12305.68	1925.454	3670.795

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: CCV02 Acquired: 12/18/2024 16:10:37 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.724155	4.699355	4.693125	4.781337	4.783023	9.578927	9.792869
Stddev	.011254	.019945	.008361	.011208	.010939	.025328	.054803
%RSD	.2382252	.4244183	.1781593	.2344195	.2287054	.2644161	.5596258
#1	4.733847	4.720832	4.701292	4.790311	4.791577	9.608094	9.854228
#2	4.711812	4.695817	4.684582	4.768774	4.770697	9.566209	9.775591
#3	4.726807	4.681416	4.693501	4.784926	4.786795	9.562478	9.748786

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2362662	2.352929	23.98256	.9626935	2.353835	1.206830	4.906081
Stddev	.0018188	.004703	.10686	.0035871	.003744	.003303	.010942
%RSD	.7697927	.1998787	.4455784	.3726142	.1590588	.2736976	.2230362
#1	.2380742	2.357911	24.09051	.9638726	2.357512	1.210584	4.898422
#2	.2362876	2.348566	23.98033	.9655426	2.350027	1.204368	4.901206
#3	.2344368	2.352310	23.87683	.9586652	2.353966	1.205538	4.918613

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.389933	23.76098	2.359785	1.204899	24.63157	2.414014	2.427189
Stddev	.009398	.08232	.004749	.001933	.08925	.011216	.005820
%RSD	.3932314	.3464557	.2012305	.1603875	.3623320	.4646281	.2397940
#1	2.399549	23.85256	2.364842	1.205885	24.73132	2.424923	2.430301
#2	2.389481	23.73724	2.355420	1.206139	24.60412	2.414603	2.420474
#3	2.380770	23.69313	2.359094	1.202672	24.55927	2.402514	2.430791

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.42676	4.745285	4.757468	4.686620	4.811794	4.814733	4.588864
Stddev	.03231	.026606	.009786	.014590	.012450	.014122	.020960
%RSD	.1322913	.5606812	.2056964	.3113140	.2587470	.2932988	.4567685
#1	24.43879	4.773406	4.768650	4.702217	4.825274	4.802739	4.612493
#2	24.45134	4.741939	4.753287	4.673306	4.809384	4.811163	4.581587
#3	24.39016	4.720511	4.750467	4.684339	4.800725	4.830297	4.572512

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: CCV02 Acquired: 12/18/2024 16:10:37 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.692143	4.832518	4.878758
Stddev	.022210	.020144	.027086
%RSD	.4733462	.4168457	.5551727
#1	4.717703	4.855706	4.905289
#2	4.677547	4.822515	4.879835
#3	4.681178	4.819333	4.851150

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2629.792	58943.14	12092.53	2207.507	3826.946
Stddev	4.907	109.42	73.88	8.121	7.777
%RSD	.1865851	.1856407	.6109963	.3678732	.2032219
#1	2624.261	58829.17	12012.50	2208.976	3819.732
#2	2633.620	58952.89	12106.94	2214.793	3835.185
#3	2631.496	59047.36	12158.14	2198.752	3825.921

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: CCB02 Acquired: 12/18/2024 16:14:49 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006076	-.000282	-.000300	-.000438	.0018093	-.002276
Stddev	.0011074	.001459	.001023	.000856	.0010317	.001399
%RSD	182.2589	516.7911	341.1690	195.4801	57.01910	61.45534
#1	.0007083	-.001411	-.001412	.000530	.0028058	-.001623
#2	.0016612	.001365	-.000086	-.001095	.0007457	-.001323
#3	-.000547	-.000801	.000599	-.000749	.0018765	-.003882

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000399	.0000119	.0000435	.0111068	.0000751	.0001620
Stddev	.000180	.0000119	.0000208	.0023690	.0001602	.0000970
%RSD	45.02829	100.1195	47.83201	21.32958	213.3211	59.86230
#1	-.000243	.0000152	.0000674	.0091672	.0000445	.0001022
#2	-.000359	-.000001	.0000300	.0104060	.0002484	.0001098
#3	-.000595	.000022	.0000330	.0137472	-.000068	.0002738

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002185	-.000840	.0001658	-.003063	-.000263	.0001865
Stddev	.0001108	.001494	.0000738	.005863	.000242	.0003056
%RSD	50.71048	177.9383	44.52089	191.3775	92.26865	163.9081
#1	.0001526	-.001147	.0001706	.001573	-.000518	.0000029
#2	.0003465	-.002156	.0000898	-.001109	-.000234	.0000173
#3	.0001565	.000784	.0002372	-.009654	-.000036	.0005393

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1276160	-.000900	.0001107	.1180263	.0041925	.0005178
Stddev	.0149626	.001024	.0001742	.0186592	.0001025	.0002034
%RSD	11.72472	113.8232	157.2914	15.80933	2.443712	39.29294
#1	.1147835	.000274	.0001867	.0984134	.0041427	.0005190
#2	.1240135	-.001612	.0002340	.1201083	.0041244	.0007206
#3	.1440510	-.001360	-.000089	.1355571	.0043103	.0003137

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: CCB02 Acquired: 12/18/2024 16:14:49 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0006058	.0000495	.0010448	-.001975	F .0150456	.0015663
Stddev	.0006061	.0001276	.0010900	.002200	.0009637	.0002227
%RSD	100.0637	257.8594	104.3259	111.4055	6.404901	14.21662
#1	.0005823	.0001777	.0022582	.000565	.0152745	.0018232
#2	.0000117	.0000482	.0007276	-.003307	.0158742	.0014478
#3	.0012233	-.000077	.0001486	-.003181	.0139881	.0014279

Elem	Sr4077
Units	ppm
Avg	.0001587
Stddev	.0000350
%RSD	22.03302
#1	.0001990
#2	.0001416
#3	.0001356

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2768.866	62081.37	13034.49	2359.724	4331.308
Stddev	6.509	167.75	46.49	3.636	10.071
%RSD	.2350608	.2702040	.3566783	.1540866	.2325061
#1	2761.504	61945.77	13005.24	2359.425	4322.603
#2	2773.854	62268.95	13010.14	2363.500	4342.338
#3	2771.241	62029.38	13088.10	2356.246	4328.983

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: PB165698BL Acquired: 12/18/2024 16:19:42 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001969	-.001368	-.000267	-.001962	-.000147	-.000108	-.001315
Stddev	.000488	.001453	.000390	.000342	.000667	.002306	.000417
%RSD	24.79693	106.2176	146.4156	17.44186	452.9366	2133.504	31.69152
#1	-.001736	.000301	-.000717	-.001590	.000617	.002406	-.001796
#2	-.002531	-.002348	-.000058	-.002035	-.000445	-.002126	-.001052
#3	-.001642	-.002057	-.000025	-.002262	-.000614	-.000604	-.001098

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000035	.0000287	.0032090	-.000096	.0001281	-.000113	-.000657
Stddev	.000032	.0000150	.0069212	.000146	.0001787	.000125	.001097
%RSD	91.50287	52.10859	215.6812	151.8454	139.5756	110.8143	167.0072
#1	-.000049	.0000238	.0032708	.000039	.0002372	.000023	-.000983
#2	-.000056	.0000169	-.003743	-.000252	-.000078	-.000138	-.001554
#3	.000002	.0000456	.010099	-.000076	.000225	-.000223	.000566

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000111	-.001473	.0000341	.0001976	.0845690	-.001223	.0001622
Stddev	.0000392	.007536	.0000677	.0003703	.0175260	.000683	.0002596
%RSD	352.5967	511.7192	198.3928	187.3686	20.72390	55.86114	160.0920
#1	-.000016	.005616	.0000008	-.000228	.0672059	-.000437	-.000031
#2	-.000007	-.000647	.0001121	.000449	.0842476	-.001555	.000060
#3	.000056	-.009388	-.000010	.000372	.1022535	-.001676	.000457

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0516444	.0014174	.0000112	-.000108	.0004657	-.001072	-.000959
Stddev	.0229881	.0005388	.0000250	.000273	.0002330	.003079	.001217
%RSD	44.51231	38.01243	223.5041	253.8445	50.03327	287.3451	126.8720
#1	.0356794	.0011368	-.000013	-.000076	.0004780	-.004084	-.000767
#2	.0412614	.0020386	.000037	-.000395	.0002268	-.001200	-.002261
#3	.0779924	.0010768	.000009	.000148	.0006922	.002070	.000150

Sample Name: PB165698BL Acquired: 12/18/2024 16:19:42 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0075996	.0000791	.0000779
Stddev	.0019415	.0004567	.0000174
%RSD	25.54788	577.5245	22.35544
#1	.0053616	-.000388	.0000609
#2	.0088334	.000101	.0000957
#3	.0086038	.000524	.0000770

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2759.463	60989.58	12898.58	2338.792	4351.513
Stddev	6.697	23.16	32.30	4.295	4.305
%RSD	.2426926	.0379683	.2504208	.1836350	.0989240
#1	2754.718	60990.10	12930.79	2343.696	4346.739
#2	2767.123	61012.47	12866.19	2336.978	4355.099
#3	2756.546	60966.16	12898.77	2335.702	4352.700

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: PB165698BS Acquired: 12/18/2024 16:24:02 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7856303	1.961621	.9541691	1.932250	.7686395	1.910364
Stddev	.0077448	.035552	.0105640	.022040	.0084550	.009914
%RSD	.9858104	1.812361	1.107143	1.140633	1.099990	.5189383
#1	.7945062	1.997934	.9663248	1.957691	.7783259	1.921810
#2	.7821391	1.960045	.9472093	1.920106	.7627398	1.904528
#3	.7802456	1.926884	.9489731	1.918953	.7648527	1.904753

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1891793	.1934088	.1892252	.9954266	.4056690	.1919937
Stddev	.0013264	.0006729	.0020438	.0106058	.0002943	.0022390
%RSD	.7011425	.3479116	1.080066	1.065448	.0725381	1.166160
#1	.1898524	.1941858	.1915690	.9939164	.4053644	.1945788
#2	.1900343	.1930205	.1878145	1.006707	.4056910	.1907279
#3	.1876513	.1930201	.1882922	.985657	.4059517	.1906743

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3065945	3.002637	.1998784	1.899686	.4822508	.0768259
Stddev	.0032432	.007689	.0005415	.007907	.0056529	.0001132
%RSD	1.057800	.2560765	.2709072	.4162086	1.172195	.1472971
#1	.3103390	3.000834	.1997055	1.906138	.4886939	.0769457
#2	.3046745	3.011068	.1994444	1.890866	.4781235	.0767209
#3	.3047701	2.996010	.2004852	1.902053	.4799351	.0768109

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.047680	.2882901	.2068586	9.698986	.2863537	.3930649
Stddev	.007416	.0007893	.0004215	.069003	.0009073	.0050316
%RSD	.2433365	.2737930	.2037880	.7114422	.3168336	1.280100
#1	3.040533	.2889438	.2065031	9.633197	.2873205	.3988738
#2	3.055339	.2885133	.2073243	9.770806	.2855209	.3902608
#3	3.047169	.2874132	.2067483	9.692956	.2862197	.3900602

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: PB165698BS Acquired: 12/18/2024 16:24:02 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6583562	.1902814	F .7328638	5.357561	F -.000916	.1986341
Stddev	.0088247	.0004889	.0044830	.055562	.000080	.0004351
%RSD	1.340419	.2569255	.6117141	1.037081	8.719801	.2190441
#1	.6685437	.1908450	.7284504	5.420865	-.000824	.1991286
#2	.6534549	.1900277	.7374133	5.334946	-.000959	.1983101
#3	.6530699	.1899716	.7327277	5.316872	-.000965	.1984635

Elem	Sr4077
Units	ppm
Avg	.1998949
Stddev	.0000975
%RSD	.0487907
#1	.1999090
#2	.1999847
#3	.1997911

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2715.729	59856.75	12431.49	2294.726	4141.782
Stddev	24.650	74.53	50.86	6.641	40.590
%RSD	.9076867	.1245177	.4091220	.2894029	.9800218
#1	2687.304	59899.86	12377.85	2298.172	4094.969
#2	2728.662	59770.69	12437.61	2287.071	4163.186
#3	2731.221	59899.71	12479.01	2298.937	4167.191

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5301-01 Acquired: 12/18/2024 16:28:03 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0386061	.0037403	.1060830	-.029471	-.000207	50.72772	.3018949
Stddev	.0016554	.0020700	.0014354	.000572	.000903	.14942	.0019067
%RSD	4.287997	55.34395	1.353112	1.939864	437.1693	.2945542	.6315913
#1	.0374750	.0039518	.1047591	-.029922	-.001063	50.57999	.3000365
#2	.0378371	.0015727	.1076086	-.029664	-.000295	50.87877	.3038466
#3	.0405061	.0056965	.1058813	-.028828	.000738	50.72440	.3018016

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0055441	.0039451	53.84692	.1388322	.0612643	.1956640	182.6770
Stddev	.0000460	.0002840	.21812	.0016063	.0008057	.0032005	.5670
%RSD	.8300573	7.197716	.4050696	1.157028	1.315138	1.635701	.3103921
#1	.0055640	.0036847	53.65491	.1406841	.0609360	.1928426	183.1770
#2	.0055768	.0042479	54.08408	.1379964	.0621823	.1991418	182.7930
#3	.0054915	.0039028	53.80177	.1378161	.0606745	.1950077	182.0609

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.051347	28.00298	.1506668	-.010906	3.952851	.2087115	.3548827
Stddev	.007315	.07627	.0023014	.000384	.016067	.0012123	.0023820
%RSD	.3566059	.2723517	1.527483	3.523374	.4064758	.5808465	.6712139
#1	2.043316	27.91834	.1489440	-.011319	3.967835	.2075568	.3574113
#2	2.057630	28.06636	.1532805	-.010839	3.954832	.2099742	.3545556
#3	2.053096	28.02424	.1497760	-.010560	3.935884	.2086037	.3526811

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.218694	.1558422	.0005008	.0060839	2.366859	4.764316	3.880746
Stddev	.032565	.0002644	.0002129	.0007334	.011287	.021188	.052791
%RSD	.3532518	.1696722	42.50975	12.05449	.4768916	.4447160	1.360327
#1	9.211446	.1555625	.0002861	.0052825	2.355555	4.775674	3.856357
#2	9.254273	.1558762	.0007119	.0067216	2.378129	4.777404	3.941321
#3	9.190364	.1560881	.0005044	.0062475	2.366894	4.739872	3.844559

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5301-01 Acquired: 12/18/2024 16:28:03 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	1.742377	.0711083	.0723036
Stddev	.020639	.0004328	.0012969
%RSD	1.184527	.6086175	1.793629
#1	1.731489	.0706217	.0708092
#2	1.766180	.0712532	.0729669
#3	1.729461	.0714501	.0731346

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2812.165	62986.80	13889.03	2379.742	3842.232
Stddev	26.063	259.72	34.25	13.828	35.048
%RSD	.9267868	.4123371	.2466202	.5810606	.9121690
#1	2827.157	62692.76	13915.54	2367.285	3867.935
#2	2782.071	63082.74	13850.35	2377.321	3802.309
#3	2827.268	63184.90	13901.19	2394.620	3856.451

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5301-03 Acquired: 12/18/2024 16:32:11 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0216015	-.001887	.4400167	-.033656	.0020966	79.14480	.5741824
Stddev	.0010205	.001394	.0050208	.001290	.0021548	.51122	.0032921
%RSD	4.724339	73.88194	1.141058	3.833255	102.7759	.6459249	.5733493
#1	.0227644	-.003495	.4370457	-.035079	.0045427	79.09567	.5747752
#2	.0211850	-.001148	.4371907	-.032563	.0004791	79.67881	.5771378
#3	.0208551	-.001018	.4458136	-.033326	.0012679	78.65993	.5706342

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0059614	.0105165	297.0928	.1527063	.0870280	.2445481	177.6614
Stddev	.0001342	.0008273	2.9736	.0023392	.0007382	.0050326	2.2717
%RSD	2.250820	7.866309	1.000895	1.531858	.8482617	2.057923	1.278646
#1	.0060566	.0096384	296.9162	.1547997	.0861991	.2391010	180.2191
#2	.0060197	.0106298	300.1508	.1531380	.0872702	.2455185	176.8867
#3	.0058080	.0112812	294.2115	.1501813	.0876147	.2490249	175.8784

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.350009	109.2878	.1546112	-.010544	3.801509	.2243815	.7192392
Stddev	.041464	.6237	.0014740	.000106	.037498	.0024883	.0086376
%RSD	.6529714	.5707056	.9533858	1.009669	.9864054	1.108976	1.200938
#1	6.350218	109.4429	.1534400	-.010657	3.836805	.2253327	.7291954
#2	6.391368	109.8193	.1541273	-.010529	3.805581	.2262539	.7137478
#3	6.308442	108.6012	.1562664	-.010446	3.762141	.2215578	.7147742

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.313062	.1465849	.0044492	.0133498	2.110934	7.695255	4.265995
Stddev	.056707	.0024776	.0003630	.0004737	.010253	.090712	.067968
%RSD	.6088953	1.690215	8.157660	3.548180	.4857294	1.178804	1.593253
#1	9.378458	.1494421	.0040966	.0128030	2.113743	7.796270	4.201238
#2	9.277502	.1452813	.0044293	.0136135	2.119491	7.668740	4.259974
#3	9.283227	.1450312	.0048217	.0136329	2.099569	7.620755	4.336773

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5301-03 Acquired: 12/18/2024 16:32:11 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.314340	.0487971	1.655776
Stddev	.035830	.0007235	.012776
%RSD	1.081066	1.482747	.7716312
#1	3.275322	.0492184	1.648236
#2	3.321931	.0492113	1.670527
#3	3.345766	.0479616	1.648563

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2686.547	61185.87	13837.40	2297.881	3456.405
Stddev	14.402	700.81	84.62	24.401	30.479
%RSD	.5360782	1.145384	.6115324	1.061893	.8818090
#1	2701.229	60437.55	13820.26	2270.068	3485.168
#2	2685.969	61293.27	13762.66	2315.691	3459.587
#3	2672.442	61826.78	13929.28	2307.885	3424.459

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-01 Acquired: 12/18/2024 16:36:35 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0045406	-.047952	.0468096	-.104664	.0039898	114.0347
Stddev	.0010575	.005021	.0001395	.002072	.0008991	.1523
%RSD	23.29032	10.47081	.2979483	1.980005	22.53456	.1335471
#1	.0056976	-.053096	.0469208	-.106509	.0044927	113.8729
#2	.0036240	-.047697	.0466531	-.105061	.0029518	114.1753
#3	.0043002	-.043063	.0468549	-.102421	.0045250	114.0560

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2565281	.0072819	.0399654	111.7269	.0135016	.3220530
Stddev	.0002484	.0000793	.0004698	.0296	.0001796	.0007152
%RSD	.0968140	1.088759	1.175522	.0264491	1.329895	.2220697
#1	.2562841	.0071904	.0403721	111.7488	.0135367	.3228119
#2	.2565197	.0073291	.0400730	111.7387	.0136610	.3219555
#3	.2567806	.0073263	.0394511	111.6933	.0133071	.3213916

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6998208	510.7926	4.737669	90.62962	.1206570	-.037713
Stddev	.0022189	1.7594	.004294	.14025	.0007949	.000287
%RSD	.3170720	.3444454	.0906457	.1547486	.6587923	.7602563
#1	.6994828	510.8528	4.732835	90.47605	.1209196	-.037598
#2	.7021894	512.5211	4.741044	90.75092	.1212873	-.038039
#3	.6977903	509.0039	4.739128	90.66190	.1197640	-.037501

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	17.82538	1.516201	.6422884	1.533600	.5115272	.0020476
Stddev	.07350	.001234	.0009053	.010081	.0020564	.0002601
%RSD	.4123536	.0813787	.1409549	.6573219	.4020144	12.70051
#1	17.75777	1.514925	.6413285	1.525159	.5103815	.0023369
#2	17.90362	1.517388	.6424097	1.544762	.5139013	.0018332
#3	17.81475	1.516290	.6431269	1.530880	.5102988	.0019727

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-01 Acquired: 12/18/2024 16:36:35 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0026363	8.119342	7.536794	F 10.39014	6.059381	.0495652
Stddev	.0010586	.011457	.034301	.05061	.021396	.0002529
%RSD	40.15549	.1411050	.4551153	.4870786	.3531019	.5102677
#1	.0014685	8.111965	7.506017	10.41407	6.083932	.0497210
#2	.0035330	8.132540	7.573773	10.42435	6.049504	.0492734
#3	.0029075	8.113520	7.530592	10.33201	6.044709	.0497011

Elem	Sr4077
Units	ppm
Avg	-.228243
Stddev	.001672
%RSD	.7323927
#1	-.228924
#2	-.229467
#3	-.226339

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3056.816	69635.30	15893.05	2601.284	3434.922
Stddev	6.164	248.22	16.25	2.639	7.261
%RSD	.2016563	.3564553	.1022680	.1014643	.2113849
#1	3055.797	69785.80	15877.75	2603.647	3430.629
#2	3051.225	69348.80	15891.27	2601.770	3430.832
#3	3063.427	69771.29	15910.11	2598.436	3443.306

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-03 Acquired: 12/18/2024 16:40:46 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0042454	-.027156	.0248603	-.053201	-.000435	103.7269	.0790036
Stddev	.0011684	.002073	.0014995	.001959	.000739	.0576	.0001657
%RSD	27.52094	7.632449	6.031751	3.682722	169.8048	.0555329	.2097258
#1	.0047974	-.029542	.0261616	-.053202	.000405	103.7926	.0790214
#2	.0029033	-.025803	.0232205	-.051242	-.000985	103.7024	.0788298
#3	.0050354	-.026122	.0251987	-.055160	-.000726	103.6855	.0791598

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0039886	.0121823	78.22683	.0335472	.2118835	.6973082	310.6313
Stddev	.0001116	.0005920	.13593	.0002940	.0022648	.0087994	.8383
%RSD	2.799076	4.859071	.1737602	.8763813	1.068879	1.261908	.2698759
#1	.0038600	.0115893	78.08984	.0332146	.2096895	.6891103	309.7373
#2	.0040604	.0121845	78.22900	.0337722	.2117481	.6962088	310.7571
#3	.0040454	.0127732	78.36167	.0336548	.2142129	.7066057	311.3997

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.968731	75.80317	.1783564	-.017875	26.60390	.9749336	.3669885
Stddev	.001409	.15062	.0026020	.000187	.06489	.0015756	.0014284
%RSD	.0715916	.1987024	1.458846	1.044021	.2439064	.1616087	.3892131
#1	1.967509	75.63010	.1762276	-.017834	26.63824	.9734067	.3666764
#2	1.968412	75.87479	.1775847	-.018079	26.64439	.9748401	.3657419
#3	1.970273	75.90462	.1812569	-.017712	26.52905	.9765538	.3685470

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.743102	.5047895	.0023061	-.000966	5.870926	6.845553	7.090853
Stddev	.018216	.0007292	.0001196	.001084	.003408	.028241	.054994
%RSD	1.045013	.1444574	5.185416	112.1564	.0580448	.4125492	.7755604
#1	1.723716	.5040565	.0021806	-.001889	5.866993	6.820970	7.124866
#2	1.759863	.5055148	.0024187	-.001237	5.872771	6.876400	7.027406
#3	1.745725	.5047972	.0023192	.000227	5.873013	6.839287	7.120286

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-03 Acquired: 12/18/2024 16:40:46 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.576406	.0496368	-.012716
Stddev	.062525	.0006463	.001210
%RSD	1.121246	1.302005	9.518088
#1	5.540470	.0490149	-.011366
#2	5.540144	.0503050	-.013078
#3	5.648603	.0495905	-.013704

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2750.516	62264.73	14236.71	2352.715	3479.504
Stddev	29.952	25.52	6.27	3.692	36.012
%RSD	1.088964	.0409852	.0440100	.1569434	1.034971
#1	2780.261	62283.41	14243.64	2355.713	3514.123
#2	2750.926	62235.65	14235.03	2353.840	3482.143
#3	2720.360	62275.13	14231.45	2348.590	3442.245

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-05 Acquired: 12/18/2024 16:44:50 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0173903	-.052325	.0511823	-.106609	.0019276	113.4099
Stddev	.0006093	.001107	.0006959	.001700	.0009578	1.1611
%RSD	3.503684	2.115022	1.359724	1.595053	49.68721	1.023820
#1	.0168281	-.053198	.0519798	-.104701	.0028640	112.0849
#2	.0180377	-.051081	.0508691	-.107161	.0019689	114.2497
#3	.0173051	-.052697	.0506979	-.107965	.0009498	113.8952

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2300937	.0074142	.0425877	106.4192	.0097941	.3307416
Stddev	.0018383	.0000756	.0002467	1.0479	.0004831	.0009576
%RSD	.7989158	1.019119	.5793240	.9847152	4.932973	.2895330
#1	.2284027	.0073273	.0427540	105.3065	.0098424	.3316053
#2	.2320503	.0074503	.0427048	107.3874	.0102514	.3297118
#3	.2298281	.0074649	.0423042	106.5638	.0092887	.3309077

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7523532	536.1662	4.709313	83.13321	.1132405	-.039086
Stddev	.0003544	.8659	.049792	.89106	.0003196	.000363
%RSD	.0471028	.1614900	1.057319	1.071843	.2822118	.9291962
#1	.7523024	536.4367	4.654262	82.16741	.1129118	-.039390
#2	.7520269	535.1973	4.751202	83.92338	.1132595	-.039184
#3	.7527302	536.8644	4.722476	83.30883	.1135501	-.038684

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.20709	1.600580	.8567385	1.370953	.6932177	.0057593
Stddev	.02134	.015735	.0029194	.017288	.0005758	.0003053
%RSD	.1403620	.9830946	.3407546	1.260986	.0830635	5.301172
#1	15.21068	1.582856	.8600221	1.390188	.6938333	.0054668
#2	15.18418	1.612904	.8544363	1.356712	.6931272	.0057352
#3	15.22641	1.605980	.8557571	1.365960	.6926924	.0060759

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-05 Acquired: 12/18/2024 16:44:50 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000466	9.659179	5.119109	F 10.70608	F 18.43621	.0563334
Stddev	.000601	.088622	.016598	.06465	.04194	.0011163
%RSD	128.9311	.9174923	.3242279	.6038357	.2275064	1.981514
#1	-.001127	9.560977	5.131962	10.63210	18.39370	.0551031
#2	.000047	9.733203	5.100371	10.73445	18.47756	.0566157
#3	-.000318	9.683358	5.124994	10.75169	18.43737	.0572814

Elem	Sr4077
Units	ppm
Avg	-.229591
Stddev	.003492
%RSD	1.520835
#1	-.233382
#2	-.226507
#3	-.228883

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3107.804	70196.32	16356.60	2632.600	3482.950
Stddev	6.663	154.31	139.96	4.173	5.545
%RSD	.2143966	.2198253	.8557041	.1585189	.1592041
#1	3100.203	70023.92	16507.83	2629.914	3476.579
#2	3112.639	70321.52	16231.61	2637.408	3486.688
#3	3110.568	70243.51	16330.37	2630.478	3485.582

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-07 Acquired: 12/18/2024 16:49:02 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002399	-.053958	.0466310	-.112045	.0040943	109.9467
Stddev	.001545	.003357	.0017485	.001920	.0005467	.3804
%RSD	64.40588	6.221018	3.749746	1.713181	13.35197	.3459632
#1	-.003069	-.050332	.0447889	-.111305	.0041067	110.2022
#2	-.003496	-.056958	.0468363	-.114224	.0035416	110.1282
#3	-.000632	-.054584	.0482678	-.110605	.0046347	109.5095

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3119887	.0078579	.0482162	109.4176	.0062079	.3538155
Stddev	.0012852	.0000657	.0022014	.3360	.0003249	.0011184
%RSD	.4119214	.8358060	4.565742	.3070566	5.233228	.3160919
#1	.3111747	.0078542	.0483082	109.4514	.0058999	.3542449
#2	.3134703	.0079253	.0503702	109.7354	.0061764	.3546555
#3	.3113212	.0077941	.0459702	109.0660	.0065473	.3525460

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8246211	553.8746	5.023852	79.38279	.1022644	-.039936
Stddev	.0122306	9.6178	.025793	.27024	.0006576	.000902
%RSD	1.483177	1.736466	.5134188	.3404250	.6430483	2.257365
#1	.8287995	552.2917	5.045604	79.56711	.1023730	-.039429
#2	.8342149	545.1464	5.030596	79.50869	.1028609	-.039403
#3	.8108488	564.1857	4.995357	79.07258	.1015592	-.040977

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	15.58196	1.613946	.7437238	1.355127	.4772025	.0008739
Stddev	.24540	.008540	.0148340	.033917	.0087686	.0000647
%RSD	1.574899	.5291329	1.994559	2.502849	1.837490	7.408763
#1	15.50897	1.611225	.7413662	1.333305	.4751330	.0009373
#2	15.38134	1.623515	.7302098	1.337874	.4696538	.0008079
#3	15.85558	1.607099	.7595954	1.394202	.4868206	.0008765

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-07 Acquired: 12/18/2024 16:49:02 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0033779	8.594745	4.387037	F 11.39164	4.116036	.0598521
Stddev	.0010683	.025276	.062784	.05593	.020504	.0002364
%RSD	31.62688	.2940819	1.431120	.4910114	.4981450	.3949332
#1	.0026669	8.588867	4.374575	11.37523	4.116288	.0597225
#2	.0046065	8.622441	4.331419	11.45395	4.136412	.0601249
#3	.0028605	8.572926	4.455118	11.34575	4.095407	.0597089

Elem	Sr4077
Units	ppm
Avg	-.272228
Stddev	.010719
%RSD	3.937407
#1	-.269611
#2	-.263061
#3	-.284014

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3054.596	71179.80	16437.76	2659.415	3373.380
Stddev	13.546	1128.43	54.39	48.011	19.459
%RSD	.4434723	1.585317	.3309088	1.805304	.5768527
#1	3045.765	71476.69	16412.40	2661.576	3361.515
#2	3047.830	72130.11	16400.67	2706.309	3362.787
#3	3070.192	69932.62	16500.20	2610.361	3395.838

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-09 Acquired: 12/18/2024 16:53:13 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0023147	-.036355	.0475055	-.093516	.0028717	94.40837
Stddev	.0030613	.001171	.0008319	.004690	.0013540	.16176
%RSD	132.2531	3.220287	1.751200	5.014866	47.15152	.1713422
#1	.0002575	-.037400	.0472494	-.088349	.0034121	94.58653
#2	.0058328	-.036576	.0484353	-.097503	.0013309	94.36790
#3	.0008538	-.035090	.0468317	-.094695	.0038720	94.27069

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2268162	.0068018	.0350176	88.89812	.0060272	.3081730
Stddev	.0010997	.0000602	.0005366	.19784	.0000924	.0003333
%RSD	.4848614	.8845498	1.532468	.2225504	1.532763	.1081635
#1	.2274577	.0068713	.0349548	89.07027	.0059494	.3078848
#2	.2274445	.0067657	.0355829	88.94209	.0061294	.3085380
#3	.2255463	.0067685	.0345151	88.68199	.0060030	.3080962

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7554005	475.8457	4.343868	72.90021	.0911870	-.034081
Stddev	.0056576	2.2049	.008168	.21195	.0003758	.000394
%RSD	.7489547	.4633726	.1880396	.2907395	.4121347	1.157290
#1	.7522624	475.0575	4.352813	73.12301	.0914039	-.033633
#2	.7619316	474.1432	4.341984	72.87653	.0907530	-.034374
#3	.7520073	478.3364	4.336806	72.70110	.0914039	-.034236

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	12.02142	1.319412	.6449500	1.146147	.4247860	.0008802
Stddev	.02556	.004468	.0016670	.006426	.0028337	.0001395
%RSD	.2126312	.3386080	.2584681	.5606779	.6670907	15.84519
#1	11.99903	1.324309	.6439554	1.145750	.4242035	.0009340
#2	12.01595	1.318368	.6440200	1.152762	.4222888	.0009848
#3	12.04927	1.315559	.6468745	1.139929	.4278657	.0007219

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-09 Acquired: 12/18/2024 16:53:13 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0036886	7.043758	5.172867	F 10.46065	4.043073	.0500876
Stddev	.0003968	.016737	.023311	.03109	.013152	.0005126
%RSD	10.75679	.2376103	.4506433	.2971617	.3252869	1.023458
#1	.0036986	7.058395	5.188377	10.46632	4.044475	.0505315
#2	.0040802	7.047367	5.146059	10.48850	4.055467	.0502046
#3	.0032869	7.025511	5.184164	10.42711	4.029276	.0495265

Elem	Sr4077
Units	ppm
Avg	-.241352
Stddev	.002414
%RSD	1.000058
#1	-.239970
#2	-.239947
#3	-.244139

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3091.892	70912.67	16160.12	2653.355	3521.494
Stddev	9.528	159.47	43.46	3.275	7.565
%RSD	.3081610	.2248889	.2689513	.1234229	.2148373
#1	3102.206	70991.30	16114.68	2654.045	3527.205
#2	3083.419	71017.56	16164.39	2656.230	3512.914
#3	3090.051	70729.15	16201.29	2649.790	3524.364

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-11 Acquired: 12/18/2024 16:57:26 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0064130	-.038564	.0297510	-.067166	.0010021	128.1071	.0688118
Stddev	.0023278	.003283	.0031441	.001060	.0009281	.3436	.0007923
%RSD	36.29775	8.513822	10.56814	1.578398	92.61825	.2681873	1.151358
#1	.0072465	-.040070	.0293856	-.066067	.0011014	128.4220	.0697147
#2	.0082092	-.034798	.0268055	-.067250	.0018766	127.7407	.0684875
#3	.0037832	-.040824	.0330619	-.068183	.0000283	128.1587	.0682331

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0046704	.0180851	94.86875	.0423003	.2534094	.8108339	357.5377
Stddev	.0000711	.0004448	.47182	.0004986	.0005738	.0054329	2.3825
%RSD	1.522012	2.459587	.4973386	1.178676	.2264409	.6700358	.6663612
#1	.0046422	.0185986	95.38142	.0419064	.2539996	.8170724	354.8047
#2	.0046177	.0178391	94.45276	.0428609	.2528535	.8071428	358.6311
#3	.0047512	.0178177	94.77207	.0421336	.2533752	.8082865	359.1772

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.036019	92.47531	.2284740	-.023646	33.71472	1.227921	.4048894
Stddev	.006664	.47130	.0004599	.000434	.28741	.004141	.0046839
%RSD	.3273135	.5096446	.2013089	1.834216	.8524671	.3372628	1.156845
#1	2.043545	92.99493	.2284054	-.023236	33.38878	1.231877	.3994989
#2	2.030869	92.07545	.2280523	-.023603	33.82358	1.223616	.4079664
#3	2.033641	92.35555	.2289644	-.024100	33.93179	1.228271	.4072030

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.940224	.7271073	.0037738	-.001114	6.987907	7.948764	8.848524
Stddev	.016397	.0020702	.0003554	.001141	.032608	.062545	.036358
%RSD	.8451086	.2847214	9.417968	102.4460	.4666326	.7868481	.4108910
#1	1.924360	.7255311	.0035264	-.001502	7.019936	7.877971	8.870935
#2	1.957106	.7263389	.0036139	-.002009	6.954750	7.971788	8.806574
#3	1.939206	.7294518	.0041811	.000171	6.989034	7.996533	8.868062

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-11 Acquired: 12/18/2024 16:57:26 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.075816	.0624759	-.094645
Stddev	.015457	.0003212	.002881
%RSD	.3045237	.5141210	3.044475
#1	5.086222	.0627967	-.091320
#2	5.058055	.0624767	-.096404
#3	5.083171	.0621543	-.096212

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2882.130	64901.26	14834.04	2437.533	3513.870
Stddev	7.717	440.93	83.24	28.207	8.442
%RSD	.2677470	.6793790	.5611633	1.157201	.2402536
#1	2873.243	65389.47	14742.10	2470.085	3504.136
#2	2886.017	64782.29	14904.29	2422.218	3519.197
#3	2887.130	64532.04	14855.73	2420.296	3518.276

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: CCV03 Acquired: 12/18/2024 17:01:40 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.838576	4.838949	4.764936	4.900095	4.920765	9.696268	9.904358
Stddev	.023337	.044558	.022085	.029036	.028113	.044254	.072324
%RSD	.4823173	.9208188	.4634849	.5925510	.5713038	.4564020	.7302251
#1	4.830011	4.861705	4.758798	4.903560	4.909720	9.676681	9.966521
#2	4.820731	4.787608	4.746570	4.869483	4.899852	9.665188	9.824979
#3	4.864985	4.867533	4.789440	4.927243	4.952722	9.746935	9.921573

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2359343	2.388239	23.83499	.9752276	2.394078	1.232832	5.000950
Stddev	.0008136	.010940	.11866	.0008092	.012083	.006602	.013081
%RSD	.3448351	.4580604	.4978310	.0829789	.5046988	.5355178	.2615620
#1	.2352502	2.385871	23.74307	.9746606	2.392741	1.231337	5.007903
#2	.2357187	2.378677	23.79295	.9761543	2.382720	1.227106	5.009086
#3	.2368339	2.400168	23.96894	.9748678	2.406774	1.240054	4.985862

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.405461	23.59565	2.396880	1.222466	25.08145	2.429367	2.462119
Stddev	.011628	.14138	.010941	.001905	.10607	.010482	.000661
%RSD	.4834040	.5991702	.4564824	.1558407	.4229162	.4314816	.0268592
#1	2.393825	23.47744	2.392920	1.221790	25.13519	2.420069	2.462629
#2	2.405478	23.55726	2.388470	1.224617	25.14989	2.427306	2.462356
#3	2.417081	23.75226	2.409250	1.220991	24.95926	2.440727	2.461372

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.92879	4.730443	4.901889	4.766433	4.842694	4.930785	4.723159
Stddev	.04202	.016429	.025546	.027964	.010744	.030465	.032527
%RSD	.1685699	.3473123	.5211388	.5866901	.2218580	.6178445	.6886682
#1	24.95868	4.725096	4.899609	4.760531	4.839336	4.895741	4.727128
#2	24.94694	4.717353	4.877559	4.741890	4.834031	4.950953	4.688829
#3	24.88074	4.748880	4.928498	4.796876	4.854716	4.945663	4.753519

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: CCV03 Acquired: 12/18/2024 17:01:40 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.707460	4.920812	4.942369
Stddev	.031251	.005389	.031573
%RSD	.6638554	.1095080	.6388216
#1	4.709376	4.926522	4.916903
#2	4.675295	4.915816	4.932508
#3	4.737708	4.920098	4.977696

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2592.464	58314.70	12171.02	2188.100	3800.722
Stddev	11.109	35.03	48.01	3.766	17.232
%RSD	.4285141	.0600697	.3944852	.1721014	.4533894
#1	2592.568	58321.25	12181.84	2183.757	3800.122
#2	2603.520	58276.85	12212.71	2190.093	3818.246
#3	2581.303	58345.99	12118.53	2190.451	3783.798

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: CCB03 Acquired: 12/18/2024 17:05:50 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000969	-.001486	.0005323	.0022686	.0018530	.0047527	-.001477
Stddev	.001481	.000428	.0003743	.0004579	.0003604	.0044986	.000383
%RSD	152.7876	28.84010	70.30922	20.18274	19.45120	94.65471	25.94926
#1	.000684	-.001204	.0009407	.0025853	.0016773	.0082698	-.001222
#2	-.001417	-.001274	.0004505	.0024769	.0016141	-.000316	-.001292
#3	-.002174	-.001979	.0002057	.0017436	.0022676	.006305	-.001918

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000005	.0000737	.0078941	.0000892	.0001525	-.000021	.0172226
Stddev	.000039	.0000338	.0023088	.0001250	.0001836	.000139	.0015944
%RSD	793.3689	45.78522	29.24737	140.2252	120.3879	674.0557	9.257798
#1	.000017	.0000959	.0095992	-.000053	.0002934	-.000125	.0155998
#2	.000018	.0000904	.0088163	.000138	.0002194	-.000074	.0187871
#3	-.000050	.0000349	.0052667	.000182	-.000055	.000137	.0172810

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001944	.0080430	-.000191	.0002568	.0520654	-.001343	.0001745
Stddev	.0001633	.0122936	.000229	.0003226	.0128332	.000844	.0001842
%RSD	84.00731	152.8489	119.3970	125.6056	24.64822	62.86010	105.5120
#1	.0000153	.0163086	-.000381	.0000255	.0386059	-.000765	.0000962
#2	.0002328	.0139047	-.000256	.0001196	.0534265	-.000951	.0000425
#3	.0003351	-.006084	.000063	.0006253	.0641638	-.002311	.0003849

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0880940	.0017664	.0005684	-.000036	.0005881	.0033919	-.003765
Stddev	.0390639	.0004769	.0002396	.000582	.0003879	.0021095	.002043
%RSD	44.34345	26.99600	42.16461	1598.929	65.94988	62.19160	54.27433
#1	.0796294	.0022456	.0008310	.000631	.0005856	.0054686	-.006112
#2	.0539564	.0017617	.0005124	-.000308	.0009773	.0034561	-.002801
#3	.1306963	.0012919	.0003616	-.000432	.0002015	.0012511	-.002382

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: CCB03 Acquired: 12/18/2024 17:05:50 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0024188	.0000197	.0001869
Stddev	.0018051	.0004525	.0000095
%RSD	74.62860	2290.946	5.094700
#1	.0006294	-.000120	.0001845
#2	.0042392	.000526	.0001974
#3	.0023878	-.000346	.0001788

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2794.262	62631.07	13296.26	2396.975	4377.080
Stddev	8.614	72.61	15.62	6.865	4.467
%RSD	.3082647	.1159255	.1174810	.2863918	.1020528
#1	2788.992	62626.85	13279.56	2404.344	4375.460
#2	2789.591	62560.66	13310.52	2390.761	4373.650
#3	2804.202	62705.69	13298.68	2395.821	4382.131

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-13 Acquired: 12/18/2024 17:10:11 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0022365	-.026947	.0206457	-.049375	.0012928	96.75413	.0532407
Stddev	.0010429	.002574	.0017830	.000839	.0008627	.11094	.0001752
%RSD	46.63074	9.552431	8.635980	1.699247	66.73086	.1146574	.3290165
#1	.0010356	-.024089	.0225617	-.049129	.0019693	96.87835	.0534078
#2	.0029142	-.027672	.0190353	-.048686	.0015877	96.71912	.0532557
#3	.0027598	-.029082	.0203401	-.050309	.0003213	96.66492	.0530585

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0038557	.0114171	70.87048	.0369124	.1941771	.6521019	274.1520
Stddev	.0000664	.0003447	.20241	.0001262	.0005398	.0017236	.5317
%RSD	1.721717	3.018918	.2856122	.3418480	.2779907	.2643153	.1939405
#1	.0038027	.0110607	71.03649	.0367668	.1936534	.6507208	274.6746
#2	.0039302	.0114422	70.64499	.0369906	.1941460	.6515514	274.1697
#3	.0038343	.0117486	70.92995	.0369799	.1947317	.6540335	273.6116

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.813973	74.49939	.1753211	-.018062	25.42930	1.013945	.3277302
Stddev	.004786	.10536	.0011398	.000539	.11626	.002979	.0018338
%RSD	.2638255	.1414189	.6501106	2.986547	.4571780	.2938514	.5595393
#1	1.812189	74.41376	.1740054	-.018266	25.49969	1.015171	.3280115
#2	1.819394	74.46736	.1759509	-.018469	25.49309	1.010548	.3294071
#3	1.810335	74.61704	.1760071	-.017450	25.29511	1.016116	.3257721

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.480678	.4155906	.0039355	-.000019	5.258711	3.975276	6.699780
Stddev	.011261	.0019817	.0001157	.001594	.015796	.010339	.013416
%RSD	.7605590	.4768339	2.941236	8369.802	.3003754	.2600837	.2002455
#1	1.472564	.4152531	.0039908	-.001686	5.275671	3.977632	6.706026
#2	1.475936	.4177194	.0040133	.000138	5.244419	3.984234	6.684379
#3	1.493535	.4137994	.0038025	.001490	5.256044	3.963963	6.708934

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-13 Acquired: 12/18/2024 17:10:11 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.081572	.0405886	-.067800
Stddev	.016419	.0000682	.000459
%RSD	.5328141	.1681197	.6771422
#1	3.076782	.0406366	-.068282
#2	3.068081	.0405105	-.067748
#3	3.099853	.0406186	-.067369

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2944.643	65649.71	14525.02	2487.585	3731.773
Stddev	2.906	268.30	33.47	7.741	5.483
%RSD	.0987008	.4086805	.2304499	.3111870	.1469304
#1	2947.686	65488.79	14487.33	2484.119	3736.668
#2	2944.348	65500.90	14551.30	2482.183	3732.804
#3	2941.896	65959.43	14536.41	2496.454	3725.848

Sample Name: P5306-15 Acquired: 12/18/2024 17:14:16 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0030437	-.027869	.0210758	-.051470	.0003678	97.85424	.0555640
Stddev	.0006629	.001714	.0010784	.001916	.0014052	.14904	.0004392
%RSD	21.77977	6.149010	5.116881	3.723260	382.0313	.1523129	.7903976
#1	.0032906	-.026647	.0198309	-.053141	-.000177	97.78419	.0552372
#2	.0035478	-.027131	.0217244	-.049378	.001964	97.75313	.0553916
#3	.0022928	-.029827	.0216719	-.051890	-.000683	98.02541	.0560633

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0038783	.0109838	72.29903	.0378166	.2003994	.6555337	284.1544
Stddev	.0000547	.0005003	.27674	.0002099	.0005889	.0029325	.9557
%RSD	1.410696	4.554952	.3827727	.5551145	.2938719	.4473449	.3363307
#1	.0038164	.0104770	72.09101	.0379575	.2008141	.6530512	284.6234
#2	.0039199	.0114773	72.19295	.0379170	.2006588	.6587693	283.0548
#3	.0038987	.0109972	72.61311	.0375753	.1997254	.6547806	284.7849

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.828243	75.57344	.1809264	-.017294	26.47810	1.030160	.3340960
Stddev	.005732	.28492	.0003512	.000107	.13689	.000462	.0011289
%RSD	.3135482	.3770143	.1941167	.6194745	.5169923	.0448871	.3378985
#1	1.822157	75.30454	.1808684	-.017219	26.63466	1.030418	.3353447
#2	1.829030	75.54373	.1806078	-.017417	26.38096	1.029627	.3337957
#3	1.833540	75.87205	.1813029	-.017247	26.41867	1.030437	.3331476

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.479730	.4244233	.0040655	-.000685	5.395164	4.410896	7.018088
Stddev	.012623	.0014665	.0000351	.000969	.013457	.006073	.033324
%RSD	.8530470	.3455247	.8628513	141.4767	.2494220	.1376822	.4748273
#1	1.477709	.4246531	.0040956	.000339	5.397138	4.412924	7.054792
#2	1.493241	.4228555	.0040739	-.000806	5.380830	4.415696	6.989732
#3	1.468240	.4257613	.0040269	-.001588	5.407525	4.404069	7.009739

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-15 Acquired: 12/18/2024 17:14:16 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.134293	.0416515	-.076704
Stddev	.014903	.0002266	.000569
%RSD	.4754748	.5439384	.7422036
#1	3.132599	.0415367	-.077007
#2	3.120310	.0415053	-.076048
#3	3.149971	.0419125	-.077058

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2918.483	65222.74	14723.01	2459.258	3680.230
Stddev	3.618	168.47	16.04	6.144	3.314
%RSD	.1239596	.2582982	.1089782	.2498515	.0900480
#1	2921.870	65029.26	14737.96	2454.112	3676.506
#2	2914.672	65336.92	14725.01	2457.601	3682.853
#3	2918.906	65302.06	14706.06	2466.061	3681.331

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-17 Acquired: 12/18/2024 17:18:22 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0077347	-.033835	.0438040	-.087724	.0022111	112.7604	.1574677
Stddev	.0029440	.001075	.0005355	.003796	.0006883	.2740	.0005189
%RSD	38.06198	3.178346	1.222487	4.326648	31.12734	.2430268	.3295335
#1	.0087682	-.034936	.0439573	-.092015	.0016976	112.7749	.1570724
#2	.0044133	-.033782	.0432086	-.084808	.0019425	112.4794	.1572754
#3	.0100225	-.032787	.0442462	-.086349	.0029932	113.0269	.1580553

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0063179	.0267541	102.6636	.0216778	.2804428	.7440330	435.5095
Stddev	.0001321	.0001412	.3882	.0004698	.0007872	.0033571	1.6756
%RSD	2.091295	.5279646	.3780996	2.167269	.2807128	.4512089	.3847445
#1	.0063088	.0267098	102.6348	.0212985	.2812285	.7477966	435.9175
#2	.0061906	.0269122	102.2906	.0215315	.2804458	.7413468	433.6676
#3	.0064543	.0266404	103.0654	.0222034	.2796541	.7429557	436.9434

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.443524	86.10772	.1516597	-.031364	21.66586	1.280022	.5424365
Stddev	.011338	.40520	.0004490	.000357	.03151	.005908	.0012511
%RSD	.3292589	.4705687	.2960646	1.137282	.1454253	.4615208	.2306398
#1	3.449262	85.96192	.1513377	-.030953	21.63140	1.276728	.5411922
#2	3.430464	85.79559	.1514688	-.031540	21.67300	1.276496	.5424230
#3	3.450846	86.56564	.1521726	-.031599	21.69319	1.286842	.5436942

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.486510	.6772027	.0026570	.0008106	7.247885	4.951999	9.322928
Stddev	.010038	.0031343	.0001385	.0006048	.021141	.030311	.038149
%RSD	.6752664	.4628254	5.213600	74.61731	.2916793	.6121020	.4091911
#1	1.475403	.6779954	.0025472	.0001705	7.241423	4.918592	9.366205
#2	1.494933	.6737482	.0026112	.0008885	7.230730	4.959661	9.308403
#3	1.489194	.6798645	.0028127	.0013726	7.271503	4.977744	9.294175

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-17 Acquired: 12/18/2024 17:18:22 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.452872	.0541700	-.168848
Stddev	.010384	.0003471	.001291
%RSD	.2332038	.6406808	.7645496
#1	4.464845	.0542176	-.168957
#2	4.447447	.0544907	-.167505
#3	4.446324	.0538016	-.170080

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3085.796	69770.22	15751.04	2605.106	3627.290
Stddev	7.492	174.87	52.07	2.563	9.099
%RSD	.2428024	.2506386	.3305891	.0983655	.2508545
#1	3081.089	69938.17	15742.42	2606.622	3618.950
#2	3094.436	69783.32	15806.88	2606.549	3636.994
#3	3081.863	69589.17	15703.81	2602.147	3625.925

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-17DUP Acquired: 12/18/2024 17:22:35 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0065458	-.039995	.0464586	-.089853	.0011871	114.8470	.1580225
Stddev	.0013916	.004049	.0005588	.002228	.0008857	.4064	.0005097
%RSD	21.26007	10.12433	1.202741	2.479875	74.60966	.3538655	.3225646
#1	.0074825	-.035830	.0468206	-.088181	.0003400	114.8712	.1584365
#2	.0049467	-.040236	.0467402	-.092383	.0011144	115.2407	.1581778
#3	.0072081	-.043918	.0458151	-.088997	.0021069	114.4290	.1574532

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0062404	.0300791	103.5005	.0216752	.2911763	.7727992	443.1335
Stddev	.0001628	.0012837	.3528	.0005321	.0045599	.0162525	3.3128
%RSD	2.608096	4.267682	.3408858	2.454865	1.566027	2.103067	.7475944
#1	.0061950	.0287856	103.5475	.0222085	.2860283	.7547204	442.9348
#2	.0064211	.0300989	103.8275	.0216727	.2927933	.7774788	446.5412
#3	.0061052	.0313527	103.1265	.0211443	.2947074	.7861986	439.9244

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.489761	87.13558	.1578550	-.031597	22.30183	1.294564	.5540649
Stddev	.017741	.38451	.0021083	.000662	.18048	.004518	.0081694
%RSD	.5083686	.4412801	1.335616	2.096116	.8092816	.3490136	1.474449
#1	3.487296	87.08988	.1555331	-.031966	22.42292	1.295803	.5580311
#2	3.508606	87.54090	.1583821	-.031992	22.38819	1.298334	.5594940
#3	3.473383	86.77596	.1596497	-.030832	22.09439	1.289556	.5446696

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.536027	.6824247	.0029299	.0006097	7.357594	5.659611	9.695171
Stddev	.018506	.0027426	.0002207	.0004423	.021912	.063251	.176132
%RSD	1.204829	.4018891	7.534196	72.54904	.2978094	1.117584	1.816697
#1	1.541939	.6831721	.0028416	.0002561	7.371826	5.675946	9.494863
#2	1.550854	.6847161	.0027670	.0011056	7.368594	5.713092	9.825821
#3	1.515286	.6793859	.0031811	.0004673	7.332361	5.589794	9.764829

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-17DUP Acquired: 12/18/2024 17:22:35 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.633374	.0555817	-.170345
Stddev	.079371	.0004558	.002531
%RSD	1.713037	.8200563	1.485954
#1	4.541957	.0560996	-.169908
#2	4.684748	.0552414	-.173067
#3	4.673416	.0554041	-.168061

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2990.334	68895.01	15672.37	2557.728	3489.475
Stddev	35.130	574.48	55.42	32.115	47.352
%RSD	1.174801	.8338433	.3535917	1.255625	1.357009
#1	3030.758	68578.88	15656.92	2541.111	3543.909
#2	2973.051	68548.02	15626.32	2537.325	3466.731
#3	2967.193	69558.11	15733.88	2594.747	3457.786

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-17LX5 Acquired: 12/18/2024 17:26:47 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005068	-.004853	.0091533	-.021229	-.000772	27.30979	.0360373
Stddev	.0018378	.001388	.0006706	.001483	.001327	.11923	.0005578
%RSD	362.6675	28.59580	7.325851	6.983450	171.9556	.4365990	1.547953
#1	-.000021	-.004500	.0096426	-.019818	-.001881	27.34732	.0366197
#2	-.001010	-.003675	.0094283	-.022774	-.001132	27.17631	.0355079
#3	.002551	-.006383	.0083890	-.021094	.000698	27.40575	.0359842

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0016423	.0015576	25.35342	.0058590	.0603692	.1919787	111.6368
Stddev	.0000167	.0000439	.06442	.0002480	.0003467	.0001554	.1055
%RSD	1.017684	2.817950	.2540960	4.233517	.5742654	.0809599	.0944821
#1	.0016586	.0015258	25.37237	.0060718	.0599760	.1921554	111.5181
#2	.0016430	.0015393	25.28165	.0055866	.0605009	.1919175	111.7200
#3	.0016252	.0016077	25.40624	.0059188	.0606307	.1918631	111.6722

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8746797	20.85938	.0331114	-.006973	5.131673	.3115449	.1345116
Stddev	.0041093	.05461	.0003237	.000332	.003303	.0005694	.0005310
%RSD	.4698071	.2617795	.9775167	4.766196	.0643708	.1827555	.3947324
#1	.8727958	20.88212	.0328674	-.007327	5.129210	.3110001	.1350646
#2	.8718502	20.79708	.0334786	-.006924	5.130382	.3114987	.1340058
#3	.8793932	20.89894	.0329882	-.006668	5.135427	.3121360	.1344645

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3941470	.1733170	.0003860	-.001520	1.824639	1.664098	1.941457
Stddev	.0272038	.0007986	.0002193	.000698	.007535	.023628	.010724
%RSD	6.901936	.4607499	56.82257	45.95824	.4129587	1.419841	.5523587
#1	.3784735	.1732352	.0004265	-.002281	1.832253	1.691366	1.929075
#2	.4255592	.1741533	.0005823	-.001370	1.817186	1.649695	1.947551
#3	.3784084	.1725625	.0001493	-.000908	1.824478	1.651231	1.947746

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-17LX5 Acquired: 12/18/2024 17:26:47 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.8887465	.0121256	-.045423
Stddev	.0060201	.0003127	.000338
%RSD	.6773705	2.578924	.7447761
#1	.8826900	.0124539	-.045242
#2	.8947295	.0120915	-.045814
#3	.8888199	.0118313	-.045214

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2807.212	62454.90	13961.12	2378.469	4006.958
Stddev	6.532	49.10	40.32	6.535	6.503
%RSD	.2327015	.0786170	.2888055	.2747510	.1622961
#1	2800.217	62407.97	13928.49	2378.120	4011.046
#2	2813.153	62505.91	14006.19	2385.172	4010.369
#3	2808.266	62450.81	13948.68	2372.116	3999.459

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-17MS Acquired: 12/18/2024 17:31:00 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0128029	-.030900	.0309558	-.073471	.0013118	123.1947	.1085007
Stddev	.0014729	.001068	.0006344	.001481	.0009483	.1269	.0002066
%RSD	11.50451	3.455135	2.049377	2.016398	72.28973	.1030313	.1904211
#1	.0141558	-.032078	.0302804	-.072956	.0006680	123.3367	.1085886
#2	.0130192	-.030628	.0315392	-.072316	.0008667	123.0925	.1082647
#3	.0112339	-.029995	.0310476	-.075142	.0024008	123.1547	.1086488

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051038	.0209610	91.14245	.0336854	.2537537	.7510156	383.4589
Stddev	.0000463	.0000691	.11636	.0000426	.0001978	.0017416	1.9807
%RSD	.9075901	.3295478	.1276640	.1264123	.0779280	.2318935	.5165388
#1	.0050550	.0208894	91.04399	.0337008	.2535320	.7490990	384.9791
#2	.0051093	.0209664	91.11251	.0336372	.2539118	.7525011	381.2190
#3	.0051471	.0210272	91.27085	.0337181	.2538174	.7514468	384.1787

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.509780	93.72270	.1941870	-.026153	30.53691	1.188973	.4695910
Stddev	.000879	.09950	.0002331	.000132	.10598	.001409	.0010005
%RSD	.0350394	.1061657	.1200518	.5032439	.3470499	.1184964	.2130471
#1	2.510691	93.65040	.1943381	-.026132	30.64743	1.189403	.4704992
#2	2.508936	93.68151	.1939185	-.026294	30.43615	1.187399	.4697550
#3	2.509713	93.83618	.1943044	-.026034	30.52714	1.190117	.4685186

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.912764	.6193516	.0026440	.0031639	6.799952	8.574656	8.112675
Stddev	.023435	.0018497	.0003599	.0014103	.005317	.022263	.023943
%RSD	1.225189	.2986469	13.61029	44.57517	.0781921	.2596392	.2951254
#1	1.899211	.6214816	.0026616	.0046932	6.804035	8.595692	8.134421
#2	1.939824	.6184230	.0029948	.0028839	6.793940	8.551341	8.116587
#3	1.899256	.6181502	.0022757	.0019146	6.801882	8.576933	8.087018

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-17MS Acquired: 12/18/2024 17:31:00 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	6.936562	.0631730	-.114962
Stddev	.024703	.0001694	.001634
%RSD	.3561331	.2681087	1.421054
#1	6.961927	.0631422	-.115721
#2	6.912578	.0633556	-.113086
#3	6.935181	.0630211	-.116077

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2925.919	66142.14	15182.09	2476.194	3600.245
Stddev	5.811	100.08	4.47	11.550	6.078
%RSD	.1986126	.1513052	.0294592	.4664541	.1688227
#1	2932.311	66069.62	15178.99	2463.676	3604.519
#2	2924.492	66256.32	15187.21	2486.438	3602.929
#3	2920.954	66100.49	15180.05	2478.468	3593.287

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-17MSD Acquired: 12/18/2024 17:35:14 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0102098	-.032216	.0307225	-.072967	.0018375	124.2592	.1090710
Stddev	.0025250	.001784	.0012363	.000540	.0017494	.7390	.0004974
%RSD	24.73095	5.538194	4.024110	.7402861	95.20446	.5947306	.4560549
#1	.0073475	-.032439	.0314284	-.072743	.0028896	123.5912	.1085145
#2	.0111604	-.030331	.0292950	-.073583	.0028047	125.0530	.1094724
#3	.0121215	-.033879	.0314442	-.072575	-.000182	124.1333	.1092260

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051319	.0209399	91.62480	.0334388	.2566058	.7579111	387.6792
Stddev	.0001146	.0005022	.55415	.0006481	.0009045	.0039186	.8188
%RSD	2.234121	2.398330	.6048066	1.938236	.3524708	.5170242	.2112031
#1	.0050576	.0215143	91.08013	.0339493	.2576501	.7624091	387.1249
#2	.0052639	.0205835	92.18797	.0336575	.2560971	.7552366	387.2931
#3	.0050741	.0207219	91.60629	.0327096	.2560703	.7560875	388.6197

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.507097	94.15631	.1974042	-.026019	30.61876	1.192238	.4743562
Stddev	.017248	.60595	.0010109	.000608	.03658	.011486	.0002094
%RSD	.6879837	.6435553	.5120804	2.337119	.1194669	.9634025	.0441441
#1	2.493467	93.60214	.1980408	-.026074	30.66054	1.181270	.4743784
#2	2.526489	94.80332	.1962386	-.026598	30.60324	1.204180	.4745536
#3	2.501335	94.06346	.1979333	-.025386	30.59250	1.191264	.4741365

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.912342	.6296279	.0021113	.0018650	6.866074	9.386365	8.355898
Stddev	.023058	.0029869	.0003138	.0009030	.036214	.017676	.010514
%RSD	1.205758	.4743910	14.86349	48.41585	.5274291	.1883149	.1258324
#1	1.906437	.6261805	.0022314	.0023753	6.827641	9.399327	8.343841
#2	1.937779	.6314414	.0023473	.0023973	6.899560	9.366230	8.363161
#3	1.892811	.6312618	.0017552	.0008224	6.871019	9.393538	8.360691

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-17MSD Acquired: 12/18/2024 17:35:14 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	7.084703	.0640712	-.116669
Stddev	.000710	.0003702	.001861
%RSD	.0100216	.5777559	1.595532
#1	7.084157	.0637436	-.117587
#2	7.085506	.0639973	-.114527
#3	7.084446	.0644728	-.117893

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2901.263	66072.82	14988.21	2451.684	3561.259
Stddev	14.166	60.95	92.25	3.294	11.816
%RSD	.4882865	.0922439	.6155110	.1343410	.3317858
#1	2886.065	66012.03	15065.08	2455.440	3549.196
#2	2914.101	66072.51	14885.91	2450.319	3572.811
#3	2903.623	66133.93	15013.66	2449.292	3561.769

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-17A Acquired: 12/18/2024 17:39:28 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0108084	-.032228	.0313074	-.072756	.0015074	125.6081
Stddev	.0045154	.002293	.0016641	.001762	.0014633	.6702
%RSD	41.77685	7.115357	5.315438	2.422133	97.07586	.5335624
#1	.0142564	-.034099	.0294983	-.074749	.0031156	124.8518
#2	.0124713	-.032914	.0316509	-.071405	.0002545	125.8444
#3	.0056973	-.029670	.0327729	-.072113	.0011520	126.1281

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1117278	.0052692	.0210248	92.96646	.0343700	.2632962
Stddev	.0005993	.0001183	.0002069	.43778	.0004461	.0002942
%RSD	.5363619	2.245604	.9841362	.4709044	1.297839	.1117424
#1	.1111209	.0053227	.0207877	92.46100	.0346385	.2630463
#2	.1123192	.0051335	.0211182	93.22526	.0346163	.2636205
#3	.1117432	.0053512	.0211686	93.21312	.0338551	.2632220

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7702558	397.3097	2.538110	95.62508	.2021094	-.027172
Stddev	.0023911	.8437	.013137	.53592	.0002505	.000677
%RSD	.3104261	.2123590	.5175721	.5604434	.1239506	2.493164
#1	.7678797	398.2654	2.523202	95.00668	.2018341	-.026458
#2	.7726616	396.6680	2.547987	95.95422	.2023240	-.027806
#3	.7702262	396.9957	2.543142	95.91435	.2021700	-.027251

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	31.22312	1.206517	.4844250	1.977846	.6440767	.0024900
Stddev	.04788	.005400	.0006650	.003496	.0024249	.0001216
%RSD	.1533482	.4475632	.1372819	.1767761	.3764957	4.882624
#1	31.26237	1.200356	.4843874	1.978259	.6413004	.0024819
#2	31.16977	1.208770	.4851080	1.981117	.6451499	.0023727
#3	31.23722	1.210426	.4837795	1.974161	.6457799	.0026155

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: P5306-17A Acquired: 12/18/2024 17:39:28 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0021082	6.989258	F 10.25600	8.566355	7.205966	.0648369
Stddev	.0002048	.035234	.01736	.022423	.007492	.0000902
%RSD	9.715344	.5041218	.1692513	.2617579	.1039643	.1391125
#1	.0021092	6.951680	10.26120	8.590416	7.214041	.0647407
#2	.0019028	6.994540	10.23664	8.562605	7.199242	.0648504
#3	.0023124	7.021553	10.27016	8.546042	7.204614	.0649196

Elem	Sr4077
Units	ppm
Avg	-.125161
Stddev	.002230
%RSD	1.781694
#1	-.127734
#2	-.123959
#3	-.123789

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2873.071	65006.18	14929.05	2418.592	3506.883
Stddev	8.668	115.91	70.45	2.182	7.723
%RSD	.3016816	.1783132	.4718857	.0902345	.2202187
#1	2879.477	64923.05	15007.92	2418.937	3513.545
#2	2863.208	64956.89	14872.37	2416.258	3498.418
#3	2876.527	65138.59	14906.85	2420.581	3508.686

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: CCV04 Acquired: 12/18/2024 17:43:41 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.813727	4.765619	4.697273	4.885452	4.883846	9.607493	9.851019
Stddev	.012319	.043460	.026286	.012323	.005545	.031202	.043390
%RSD	.2559229	.9119454	.5596031	.2522441	.1135424	.3247632	.4404640
#1	4.827950	4.793475	4.725675	4.889000	4.890061	9.621570	9.875374
#2	4.806439	4.787842	4.692343	4.895613	4.882072	9.629176	9.800923
#3	4.806790	4.715542	4.673801	4.871745	4.879405	9.571734	9.876761

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2345377	2.354582	23.62380	.9664709	2.356825	1.234940	4.948587
Stddev	.0008433	.012739	.09031	.0005452	.011178	.002480	.009037
%RSD	.3595528	.5410510	.3822678	.0564079	.4742995	.2007894	.1826123
#1	.2355044	2.368055	23.71860	.9665592	2.368051	1.234639	4.938866
#2	.2341562	2.352959	23.61400	.9669665	2.356729	1.237556	4.956733
#3	.2339526	2.342732	23.53879	.9658869	2.345695	1.232624	4.950163

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.399972	23.46220	2.364680	1.214138	24.92865	2.411795	2.458951
Stddev	.005881	.08471	.012329	.001109	.07848	.004302	.001247
%RSD	.2450451	.3610334	.5213619	.0913757	.3148240	.1783582	.0506972
#1	2.404951	23.53372	2.378091	1.212867	24.96676	2.416605	2.460365
#2	2.401482	23.48423	2.362109	1.214635	24.98080	2.410460	2.458010
#3	2.393483	23.36866	2.353839	1.214913	24.83839	2.408318	2.458478

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	24.74009	4.700895	4.823640	4.699313	4.810352	4.893894	4.654108
Stddev	.05661	.012664	.011748	.025883	.011750	.021442	.033385
%RSD	.2288171	.2693924	.2435469	.5507908	.2442698	.4381308	.7173166
#1	24.67481	4.715513	4.834117	4.724710	4.823732	4.879597	4.680026
#2	24.77570	4.693911	4.825864	4.700260	4.801715	4.918548	4.665862
#3	24.76976	4.693260	4.810939	4.672969	4.805608	4.883536	4.616436

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: CCV04 Acquired: 12/18/2024 17:43:41 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.682389	4.864069	4.929652
Stddev	.032065	.001057	.022470
%RSD	.6847917	.0217239	.4558227
#1	4.709804	4.865254	4.941095
#2	4.690232	4.863224	4.903763
#3	4.647130	4.863730	4.944098

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2593.968	58271.70	12181.44	2182.729	3803.420
Stddev	1.555	114.31	54.09	3.504	10.378
%RSD	.0599639	.1961607	.4440552	.1605477	.2728709
#1	2592.181	58253.50	12123.70	2186.267	3791.851
#2	2594.697	58167.59	12189.68	2179.259	3806.497
#3	2595.024	58394.02	12230.94	2182.661	3811.912

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: CCB04 Acquired: 12/18/2024 17:47:52 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0026196	-.000462	-.000540	-.000322	.0009973	.0003951	-.003427
Stddev	.0009951	.000795	.000176	.001360	.0006118	.0047384	.000284
%RSD	37.98503	171.9107	32.54438	422.7940	61.34500	1199.389	8.289639
#1	.0015868	-.001343	-.000458	.000762	.0007192	-.005060	-.003242
#2	.0035720	.000202	-.000421	.000120	.0016988	.003486	-.003754
#3	.0027001	-.000246	-.000743	-.001847	.0005740	.002760	-.003286

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000013	.0000510	.0070039	-.000233	.0001635	.0000814	.0053774
Stddev	.000009	.0001157	.0043398	.000188	.0001365	.0003727	.0031043
%RSD	73.01749	226.9915	61.96308	80.33114	83.47234	457.8800	57.72810
#1	-.000017	.0000893	.0046826	-.000073	.0001930	.0003925	.0028442
#2	-.000002	-.000079	.0120107	-.000440	.0000147	.0001834	.0044478
#3	-.000020	.000143	.0043185	-.000187	.0002828	-.000332	.0088403

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000036	-.005010	-.000226	.0002456	.0460702	-.000676	.0002394
Stddev	.000068	.004982	.000222	.0000199	.0110139	.000703	.0003015
%RSD	188.8564	99.43899	98.34659	8.119780	23.90666	103.9625	125.9403
#1	-.000071	-.002128	-.000162	.0002581	.0346979	.000133	.0000375
#2	-.000078	-.002139	-.000043	.0002561	.0468261	-.001135	.0000947
#3	.000042	-.010762	-.000473	.0002226	.0566867	-.001027	.0005860

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0884962	.0013050	.0005226	-.000282	.0003382	.0042966	-.000309
Stddev	.0072539	.0010659	.0001127	.000958	.0000296	.0030536	.002114
%RSD	8.196793	81.67445	21.56715	340.0142	8.766841	71.06936	683.3797
#1	.0801882	.0022556	.0005529	-.000340	.0003702	.0066431	-.001688
#2	.0935727	.0015067	.0003978	.000704	.0003117	.0054026	.002125
#3	.0917277	.0001527	.0006171	-.001209	.0003327	.0008442	-.001365

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: CCB04 Acquired: 12/18/2024 17:47:52 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0020372	.0001519	.0000978
Stddev	.0018352	.0009832	.0000231
%RSD	90.08604	647.1439	23.65340
#1	.0035975	-.000771	.0001213
#2	.0000152	.001186	.0000969
#3	.0024990	.000041	.0000751

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2705.325	61367.26	13181.06	2299.398	4299.230
Stddev	3.920	136.93	16.92	6.273	6.167
%RSD	.1449042	.2231246	.1283687	.2728013	.1434519
#1	2709.186	61524.51	13199.84	2295.842	4301.967
#2	2705.441	61274.38	13167.01	2306.641	4303.554
#3	2701.349	61302.89	13176.33	2295.711	4292.167

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: LR1 Acquired: 12/18/2024 18:03:29 Type: Unk
Method: NON EPA-6010-200.7(v2540) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0113916	.0770723	.0312713	-.228319	-.001482	1999.442	.0142024
Stddev	.0072413	.0097772	.0061174	.001377	.006798	30.662	.0013283
%RSD	63.56759	12.68580	19.56228	.6030487	458.6428	1.533511	9.352404
#1	.0165905	.0704565	.0335384	-.227759	-.002984	2032.554	.0155401
#2	.0144636	.0883028	.0243440	-.227310	-.007403	1993.742	.0141831
#3	.0031206	.0724576	.0359315	-.229887	.005941	1972.031	.0128838

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0095306	.1127914	1450.437	-.002641	.0381141	.2030955	805.6311
Stddev	.0000931	.0021952	20.212	.000608	.0009607	.0061330	7.0472
%RSD	.9765663	1.946225	1.393479	23.00269	2.520617	3.019746	.8747413
#1	.0095638	.1121184	1473.590	-.002408	.0391151	.1991410	812.1999
#2	.0094255	.1110116	1441.402	-.003331	.0371995	.1999852	806.5061
#3	.0096026	.1152444	1436.319	-.002184	.0380276	.2101605	798.1872

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.088998	1522.114	.0173837	-.140422	1736.528	.0604366	.1353599
Stddev	.000234	20.582	.0014348	.001047	10.649	.0013068	.0012383
%RSD	.2625536	1.352178	8.253803	.7453825	.6132211	2.162330	.9148000
#1	-.088947	1545.435	.0157282	-.139282	1745.776	.0612962	.1350738
#2	-.088794	1514.415	.0182664	-.140645	1738.921	.0589327	.1342897
#3	-.089253	1506.491	.0181567	-.141340	1724.886	.0610808	.1367162

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	933.8216	.1590169	-.008178	.0191434	-.035782	.1244123	.0879842
Stddev	6.3451	.0042023	.000394	.0026247	.000618	.0083344	.0045513
%RSD	.6794753	2.642706	4.820585	13.71055	1.726504	6.698995	5.172863
#1	933.0666	.1583400	-.007935	.0220899	-.036460	.1244016	.0917853
#2	940.5105	.1635166	-.007966	.0170556	-.035636	.1327521	.0892266
#3	927.8879	.1551941	-.008633	.0182847	-.035250	.1160833	.0829407

Sample Name: LR1 Acquired: 12/18/2024 18:03:29 Type: Unk
Method: NON EPA-6010-200.7(v2540) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.177464	-.231570	-.795305
Stddev	.013494	.003547	.007017
%RSD	7.603796	1.531776	.8823540
#1	-.192810	-.235650	-.801827
#2	-.167453	-.229840	-.796207
#3	-.172130	-.229219	-.787880

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1749.690	37715.45	10032.04	1364.621	2139.715
Stddev	8.684	138.69	40.05	5.950	11.802
%RSD	.4963357	.3677292	.3991967	.4359973	.5515798
#1	1749.030	37756.68	9986.10	1365.062	2138.755
#2	1758.686	37560.82	10059.58	1370.338	2151.968
#3	1741.354	37828.85	10050.45	1358.463	2128.422

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: LR2 Acquired: 12/18/2024 18:08:24 Type: Unk
Method: NON EPA-6010-200.7(v2540) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0087141	-.026953	211.0725	.0045781	-.002735	.1011589	^ *****
Stddev	.0002716	.000891	1.6495	.0012385	.001252	.0294025	-----
%RSD	3.116769	3.304617	.7814809	27.05225	45.79199	29.06561	-----
#1	.0084321	-.027932	212.5065	.0045549	-.001959	.1336170	^ -----
#2	.0087361	-.026737	211.4413	.0058281	-.004180	.0935527	^ -----
#3	.0089740	-.026191	209.2699	.0033515	-.002066	.0763069	^ -----

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002726	-.005678	.3210247	.0123264	-.019455	209.7931	.0203529
Stddev	.000014	.000217	.0243917	.0001310	.000237	1.8379	.0120564
%RSD	.5036762	3.816993	7.598073	1.063098	1.217876	.8760754	59.23683
#1	-.002740	-.005876	.3457989	.0124756	-.019728	211.8808	.0314106
#2	-.002726	-.005712	.3202408	.0122301	-.019299	209.0799	.0221488
#3	-.002712	-.005446	.2970344	.0122735	-.019339	208.4187	.0074993

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	40.02940	.0327420	41.79389	.0015458	.6332925	-.015927	21.31338
Stddev	.27856	.0177704	.34642	.0001375	.0098569	.001562	.21876
%RSD	.6958918	54.27388	.8288806	8.896342	1.556449	9.808402	1.026408
#1	40.00617	.0496104	42.11216	.0016865	.6368902	-.015953	21.56327
#2	40.31885	.0344261	41.84461	.0014117	.6408452	-.017475	21.15645
#3	39.76318	.0141896	41.42491	.0015393	.6221422	-.014351	21.22042

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3263335	-.002858	-.006751	-.004690	-.038867	-.015241	2.429321
Stddev	.0177888	.000261	.000305	.001064	.000580	.002455	.020181
%RSD	5.451109	9.125240	4.522174	22.69595	1.492517	16.10750	.8307456
#1	.3463525	-.003069	-.007002	-.005886	-.039063	-.014951	2.448077
#2	.3123399	-.002938	-.006412	-.003848	-.039324	-.012944	2.431920
#3	.3203082	-.002566	-.006840	-.004335	-.038214	-.017828	2.407966

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: LR2 Acquired: 12/18/2024 18:08:24 Type: Unk
Method: NON EPA-6010-200.7(v2540) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.021885	.0019913	.0018523
Stddev	.006823	.0005123	.0000080
%RSD	31.17621	25.72653	.4319332
#1	-.021514	.0016117	.0018615
#2	-.028887	.0025740	.0018472
#3	-.015256	.0017882	.0018481

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2551.303	62369.70	13421.06	2302.377	4240.012
Stddev	24.942	324.90	87.45	25.686	32.896
%RSD	.9776119	.5209184	.6515873	1.115638	.7758545
#1	2522.694	61995.60	13521.30	2272.801	4203.076
#2	2562.736	62532.32	13381.52	2315.232	4250.802
#3	2568.478	62581.17	13360.37	2319.098	4266.158

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: CCV05 Acquired: 12/18/2024 18:33:13 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.661877	4.851118	4.834428	4.652089	4.657056	9.624481	9.392249
Stddev	.003142	.033987	.011459	.005262	.006155	.035305	.051470
%RSD	.0674044	.7006085	.2370270	.1131088	.1321547	.3668274	.5480084
#1	4.663540	4.887645	4.847397	4.658126	4.651935	9.651128	9.446226
#2	4.663839	4.820426	4.830215	4.648472	4.655349	9.637877	9.343718
#3	4.658253	4.845283	4.825673	4.649670	4.663883	9.584438	9.386802

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2555642	2.442511	24.57354	1.012825	2.412189	1.203978	4.848308
Stddev	.0010069	.006115	.08846	.000598	.005074	.000220	.008659
%RSD	.3939886	.2503605	.3600009	.0590128	.2103322	.0182871	.1786008
#1	.2567031	2.449508	24.67562	1.012138	2.417992	1.203899	4.849761
#2	.2547921	2.438196	24.52594	1.013225	2.408586	1.203808	4.856149
#3	.2551975	2.439827	24.51908	1.013111	2.409991	1.204227	4.839014

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.504459	25.06312	2.422169	1.222882	23.18416	2.451163	2.425227
Stddev	.002168	.05470	.005211	.000876	.11151	.007603	.003499
%RSD	.0865559	.2182390	.2151415	.0715997	.4809720	.3101953	.1442726
#1	2.506962	25.11008	2.428180	1.223635	23.26647	2.459420	2.423322
#2	2.503166	25.00306	2.419389	1.221921	23.22875	2.449617	2.429265
#3	2.503251	25.07622	2.418937	1.223090	23.05726	2.444451	2.423093

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	23.25350	4.962489	4.730864	4.871619	4.794272	4.783276	4.902465
Stddev	.10079	.020303	.004251	.015559	.023150	.017369	.034573
%RSD	.4334555	.4091218	.0898621	.3193751	.4828719	.3631158	.7052215
#1	23.32001	4.981556	4.735369	4.889489	4.817237	4.764210	4.941799
#2	23.30296	4.941143	4.726923	4.861083	4.794637	4.798197	4.888714
#3	23.13753	4.964769	4.730300	4.864284	4.770941	4.787422	4.876883

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: CCV05 Acquired: 12/18/2024 18:33:13 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.734127	4.595416	4.901335
Stddev	.011722	.024382	.020478
%RSD	.2475972	.5305812	.4178131
#1	4.747574	4.618787	4.919370
#2	4.728741	4.597325	4.905563
#3	4.726067	4.570135	4.879073

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2697.969	57232.52	11351.34	2274.301	3828.472
Stddev	1.437	64.99	52.01	6.574	6.290
%RSD	.0532579	.1135469	.4582257	.2890472	.1642837
#1	2698.013	57172.12	11291.49	2272.213	3822.288
#2	2699.383	57224.15	11385.60	2269.024	3834.862
#3	2696.511	57301.28	11376.95	2281.665	3828.266

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: CCB05 Acquired: 12/18/2024 18:37:23 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000836	.0000401	-.000619	.0006192	.0010303	.0006011	.0013852
Stddev	.0006604	.0014064	.000713	.0009256	.0006400	.0039757	.0005864
%RSD	790.3910	3504.182	115.2491	149.4901	62.12104	661.4205	42.33034
#1	-.000673	.0016416	-.001065	.0012356	.0013595	-.003409	.0014674
#2	.000542	-.000994	-.000994	.0010672	.0002927	.000670	.0019261
#3	.000382	-.000527	.000204	-.000445	.0014387	.004542	.0007621

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000006	.0000820	.0063913	.0001742	.0000539	.0006785	-.001211
Stddev	.000001	.0000357	.0035709	.0000756	.0001666	.0001009	.002274
%RSD	24.49778	43.51141	55.87215	43.38688	309.2381	14.86656	187.7295
#1	-.000005	.0000522	.0062029	.0001612	-.000048	.0007533	-.000137
#2	-.000005	.0001215	.0100527	.0002554	-.000036	.0007183	-.003823
#3	-.000007	.0000722	.0029183	.0001059	.000246	.0005638	.000327

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002879	.0050411	.0000318	-.000184	.1700565	-.000517	.0001723
Stddev	.0002121	.0074235	.0000626	.000238	.0214775	.000831	.0002147
%RSD	73.65001	147.2608	196.4555	129.1129	12.62961	160.6923	124.5963
#1	.0005326	.0032287	-.000005	.000069	.1453931	-.001397	-.000054
#2	.0001745	.0132029	.000104	-.000402	.1801361	.000253	.000374
#3	.0001567	-.001308	-.000003	-.000219	.1846401	-.000407	.000197

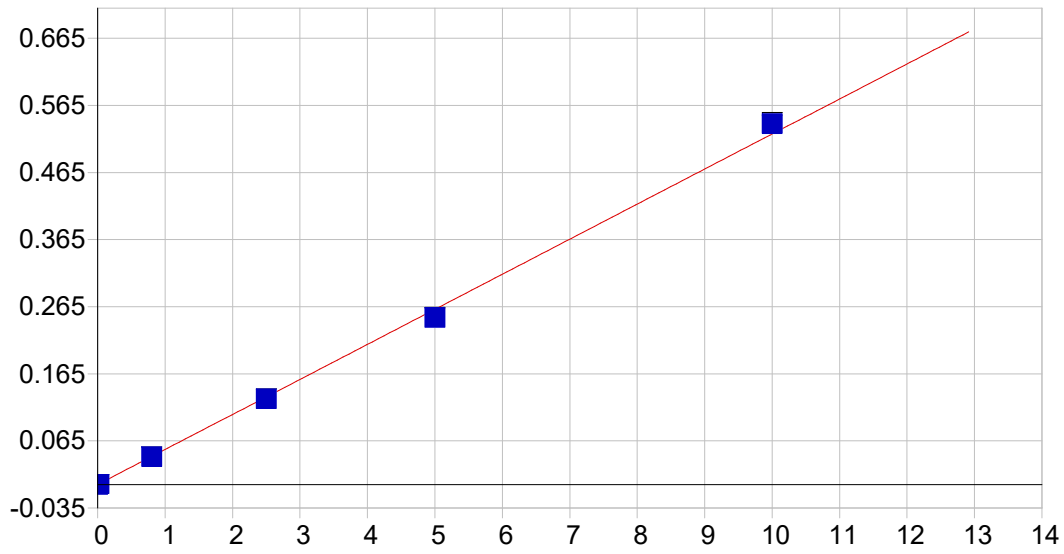
Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2096593	.0044766	.0003991	.0005251	-.000101	.0038778	-.004619
Stddev	.0107198	.0002129	.0000894	.0007585	.000338	.0049976	.001940
%RSD	5.112960	4.754625	22.39098	144.4565	335.0346	128.8758	42.00165
#1	.2004210	.0046636	.0004933	.0004703	-.000372	.0085787	-.006133
#2	.2071437	.0042450	.0003886	-.000205	.000278	.0044261	-.002432
#3	.2214132	.0045212	.0003155	.001310	-.000208	-.001371	-.005294

Reviewed By:Mohan
On:12/31/2024 4:15:28 AM
Inst Id :P4
LB :LB134001

Sample Name: CCB05 Acquired: 12/18/2024 18:37:23 Type: Unk
Method: NON EPA-6010-200.7(v2483) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000665	-.000754	.0001694
Stddev	.001146	.000808	.0000318
%RSD	172.3617	107.1285	18.75035
#1	-.001965	-.000064	.0001428
#2	.000199	-.001642	.0002046
#3	-.000228	-.000556	.0001607

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2864.376	61024.13	12300.24	2444.709	4350.314
Stddev	2.486	45.73	23.92	4.738	2.565
%RSD	.0867951	.0749303	.1944974	.1938083	.0589712
#1	2864.790	61003.20	12277.12	2442.440	4352.705
#2	2861.709	60992.62	12324.90	2441.532	4350.633
#3	2866.629	61076.58	12298.71	2450.155	4347.604

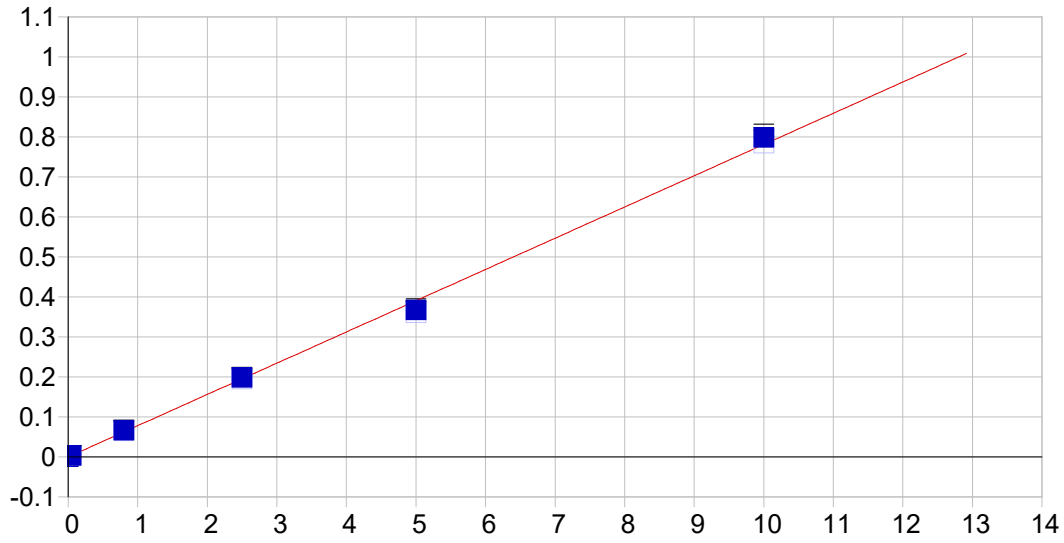


As 189.042 {479}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000130	Re-Slope:	1.000000
A1 (Gain):	0.052253	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999424	Status:	OK.
Std Error of Est:	0.000042		
Predicted MDL:	0.002423		
Predicted MQL:	0.008075		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00013	.000	1
S1	.02000	.02053	.001	2.64	.00094	.000	1
S3	2.5000	2.4469	-.053	-2.12	.12759	.000	1
S4	5.0000	4.7624	-.238	-4.75	.24844	.000	1
S5	10.000	10.294	.294	2.94	.53720	.002	1
S2	.80000	.79620	-.004	-.475	.04143	.000	1

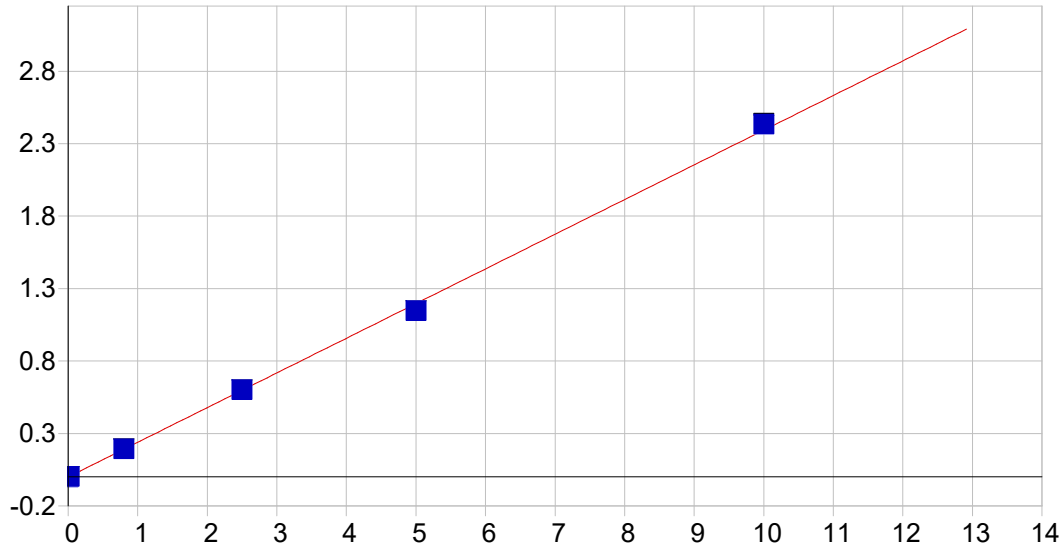


Tl 190.856 {477}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000013	Re-Slope:	1.000000
A1 (Gain):	0.078099	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999253	Status:	OK.
Std Error of Est:	0.000098		
Predicted MDL:	0.001502		
Predicted MQL:	0.005006		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00001	.000	1
S1	.04000	.04042	.000	1.05	.00294	.000	1
S3	2.5000	2.5361	.036	1.44	.19446	.001	1
S4	5.0000	4.6974	-.303	-6.05	.35966	.004	1
S5	10.000	10.219	.219	2.19	.78369	.009	1
S2	.80000	.84714	.047	5.89	.06500	.001	1

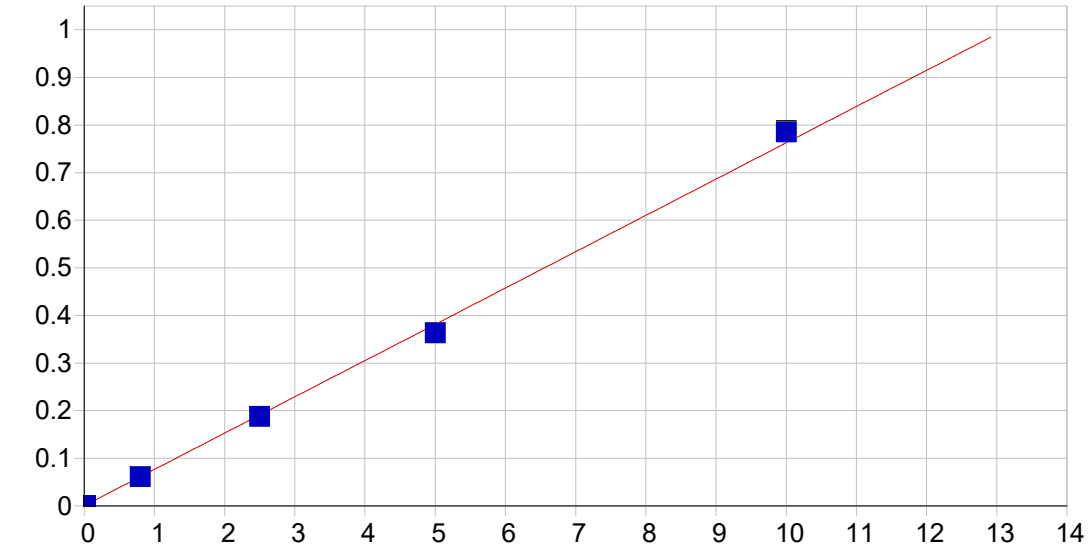


Pb 220.353 {453}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000210	Re-Slope:	1.000000
A1 (Gain):	0.239342	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999683	Status:	OK.
Std Error of Est:	0.000109		
Predicted MDL:	0.001029		
Predicted MQL:	0.003431		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00021	.000	1
S1	.01200	.01146	-.001	-4.50	.00248	.000	1
S3	2.5000	2.5154	.015	.617	.60118	.001	1
S4	5.0000	4.7974	-.203	-4.05	1.1467	.000	1
S5	10.000	10.176	.176	1.76	2.4327	.006	1
S2	.80000	.81179	.012	1.47	.19388	.001	1

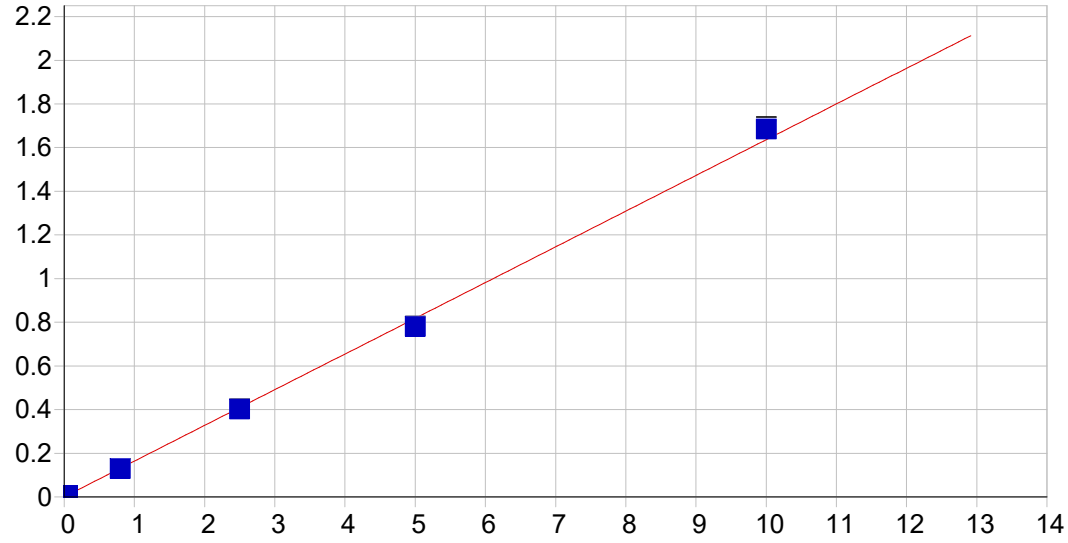


Se 196.090 {472}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000444	Re-Slope:	1.000000
A1 (Gain):	0.076222	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999409	Status:	OK.
Std Error of Est:	0.000061		
Predicted MDL:	0.002218		
Predicted MQL:	0.007392		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00044	.000	1
S1	.02000	.01971	-.000	-1.47	.00195	.000	1
S3	2.5000	2.4546	-.045	-1.82	.18749	.000	1
S4	5.0000	4.7537	-.246	-4.93	.36268	.001	1
S5	10.000	10.294	.294	2.94	.78491	.003	1
S2	.80000	.79756	-.002	-.304	.06122	.000	1

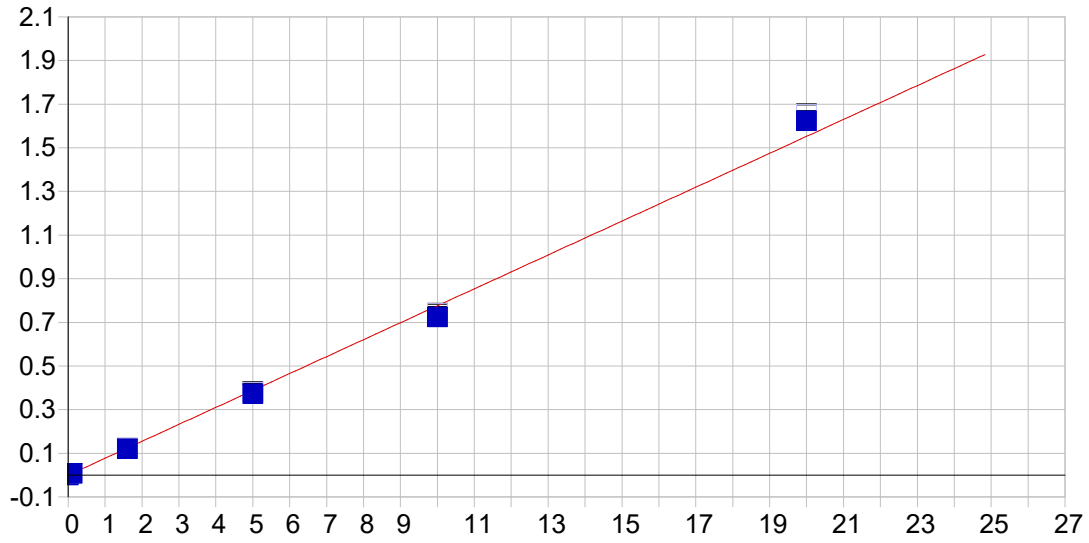


Sb 206.833 {463}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000308	Re-Slope:	1.000000
A1 (Gain):	0.163578	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999436	Status:	OK.
Std Error of Est:	0.000204		
Predicted MDL:	0.001272		
Predicted MQL:	0.004241		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00031	.000	1
S1	.05000	.04819	-.002	-3.61	.00821	.000	1
S3	2.5000	2.4511	-.049	-1.96	.40237	.001	1
S4	5.0000	4.7654	-.235	-4.69	.78204	.001	1
S5	10.000	10.295	.295	2.95	1.6887	.007	1
S2	.80000	.79051	-.009	-1.19	.12997	.001	1

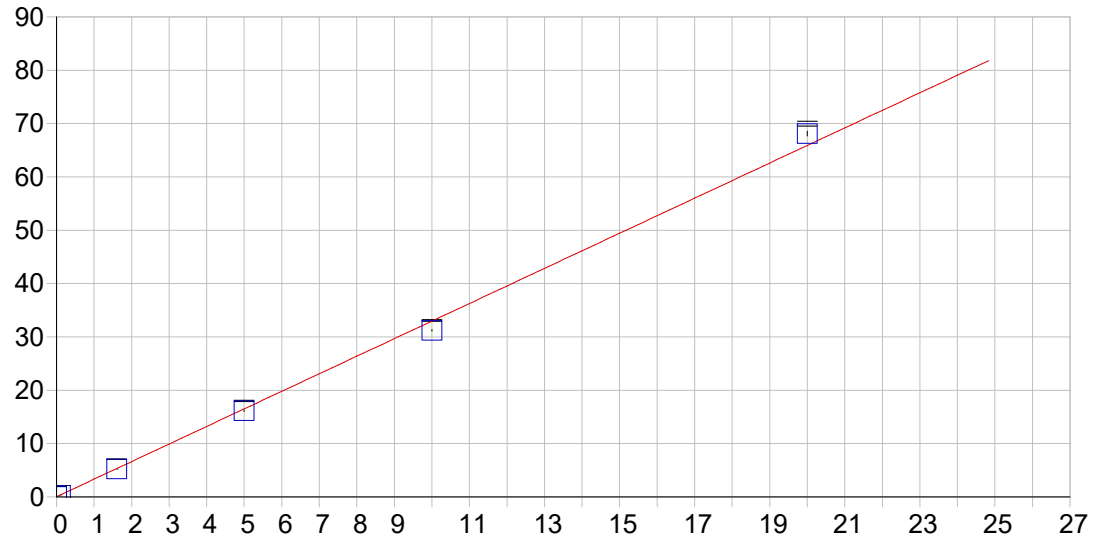


Al 396.152 { 85}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000385	Re-Slope:	1.000000
A1 (Gain):	0.077637	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998765	Status:	OK.
Std Error of Est:	0.000292		
Predicted MDL:	0.006401		
Predicted MQL:	0.021336		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	-.00038	.000	1
S1	.10000	.09878	-.001	-1.22	.00789	.000	1
S3	5.0000	4.8019	-.198	-3.96	.37995	.003	1
S4	10.000	9.3409	-.659	-6.59	.73988	.003	1
S5	20.000	20.910	.910	4.55	1.6532	.002	1
S2	1.6000	1.5481	-.052	-3.24	.12222	.001	1

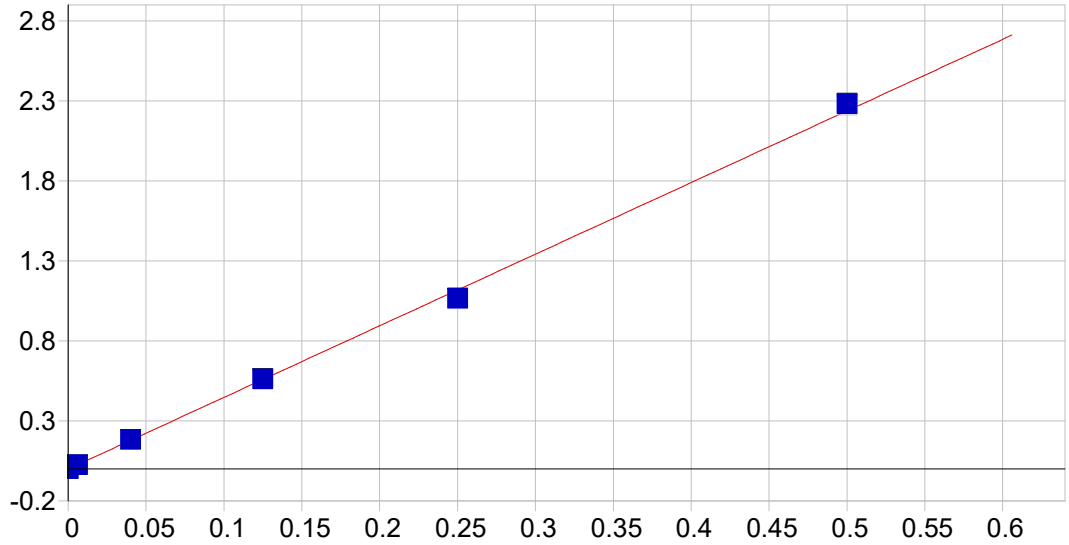


Ba 493.409 { 68}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.042060	Re-Slope:	1.000000
A1 (Gain):	3.292632	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999259	Status:	OK.
Std Error of Est:	0.009403		
Predicted MDL:	0.000497		
Predicted MQL:	0.001657		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.04210	.000	1
S1	.10000	.09520	-.005	-4.80	.35553	.002	1
S3	5.0000	4.8877	-.112	-2.25	16.135	.120	1
S4	10.000	9.4675	-.533	-5.33	31.215	.156	1
S5	20.000	20.676	.676	3.38	68.121	.456	1
S2	1.6000	1.5734	-.027	-1.66	5.2226	.017	1

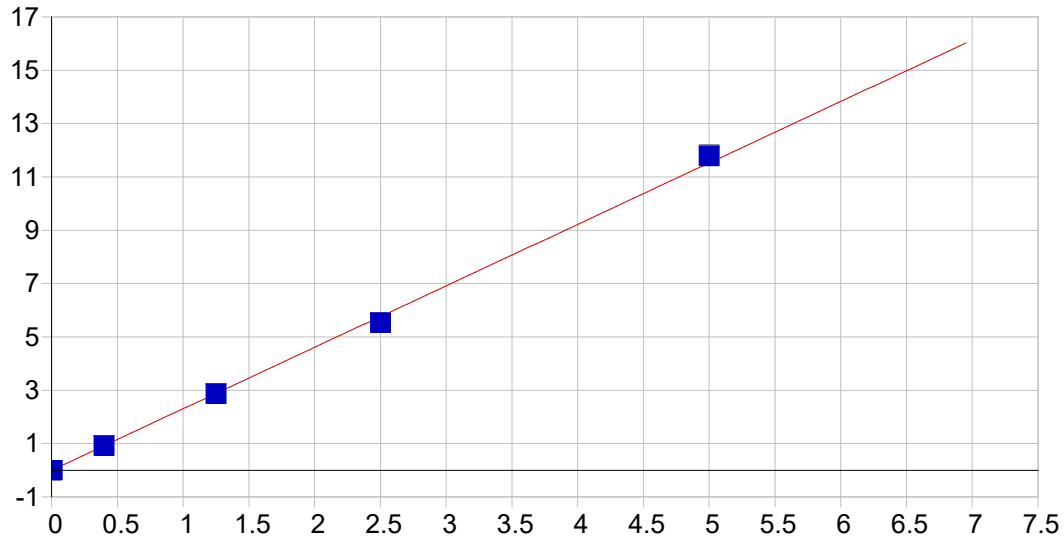


Be 234.861 {144}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000555	Re-Slope:	1.000000
A1 (Gain):	4.475363	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999579	Status:	OK.
Std Error of Est:	0.000372		
Predicted MDL:	0.000054		
Predicted MQL:	0.000179		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00055	.000	1
S1	.00600	.00587	-.000	-2.20	.02551	.000	1
S3	.12500	.12564	.001	.511	.55922	.003	1
S4	.25000	.23843	-.012	-4.63	1.0615	.002	1
S5	.50000	.51003	.010	2.01	2.2720	.004	1
S2	.04000	.04103	.001	2.57	.18226	.000	1

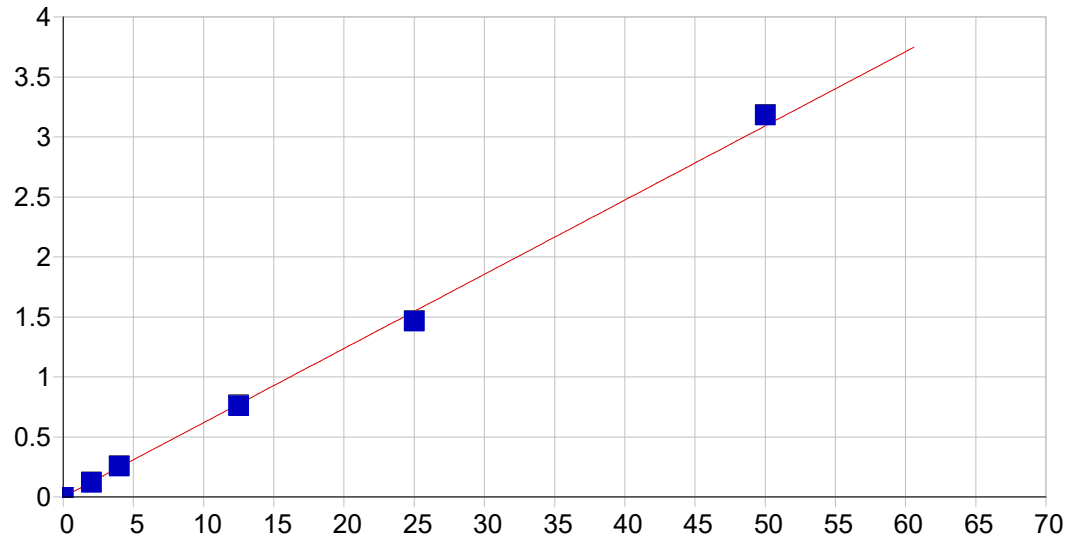


Cd 226.502 {449}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000024	Re-Slope:	1.000000
A1 (Gain):	2.304944	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999638	Status:	OK.
Std Error of Est:	0.000563		
Predicted MDL:	0.000082		
Predicted MQL:	0.000272		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00003	.000	1
S1	.00600	.00575	-.000	-4.12	.01333	.000	1
S3	1.2500	1.2427	-.007	-.585	2.8663	.001	1
S4	2.5000	2.3983	-.102	-4.07	5.5319	.005	1
S5	5.0000	5.1106	.111	2.21	11.788	.034	1
S2	.40000	.39871	-.001	-.321	.91967	.004	1

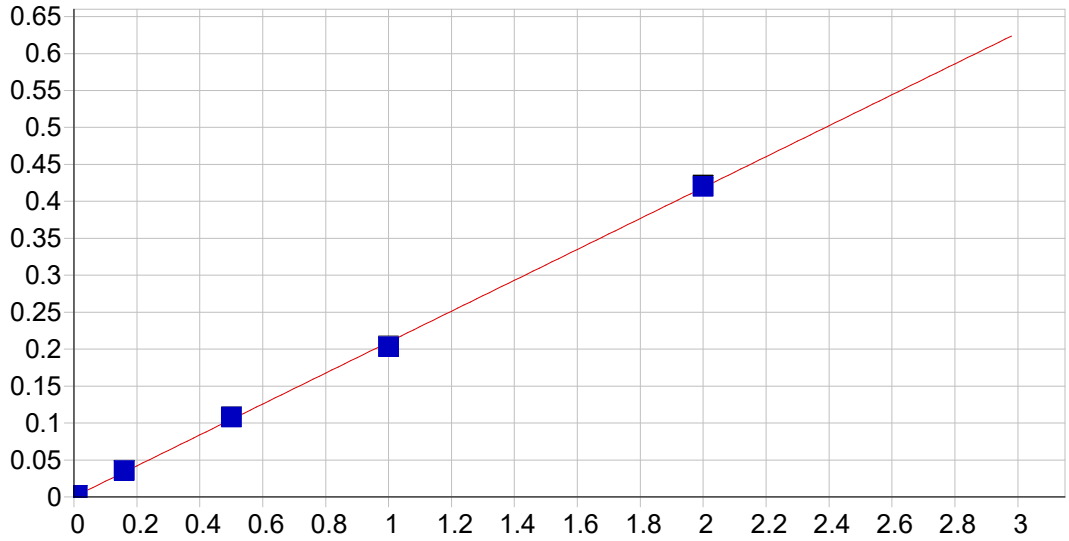


Ca 373.690 { 90}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000323	Re-Slope:	1.000000
A1 (Gain):	0.061829	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999345	Status:	OK.
Std Error of Est:	0.001185		
Predicted MDL:	0.007745		
Predicted MQL:	0.025817		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00006	.000	.000	.00033	.000	1
S2	4.0000	4.1334	.133	3.34	.25589	.001	1
S3	12.500	12.296	-.204	-1.63	.76058	.005	1
S4	25.000	23.663	-1.34	-5.35	1.4634	.002	1
S5	50.000	51.454	1.45	2.91	3.1817	.002	1
S1	2.0000	1.9533	-.047	-2.33	.12110	.001	1

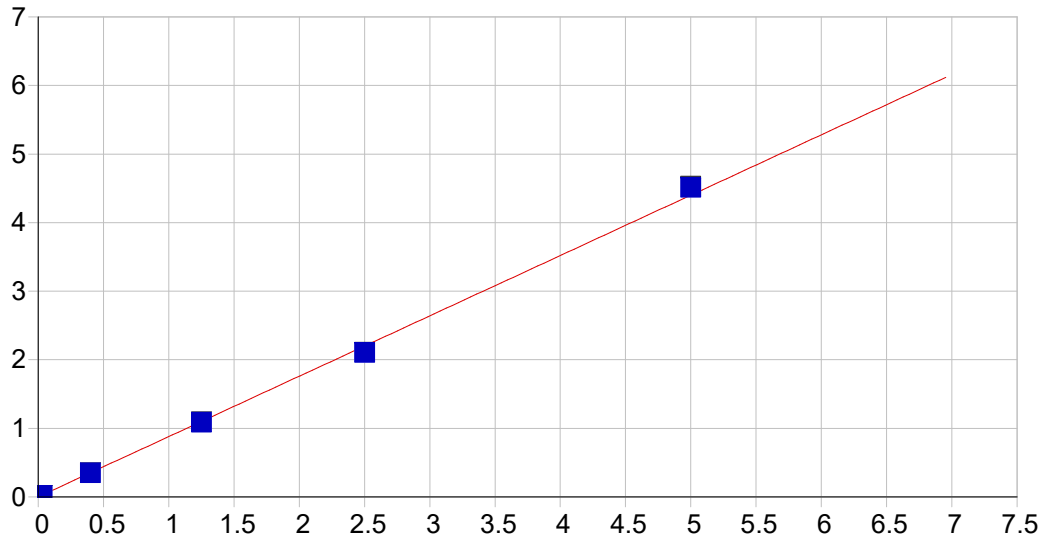


Cr 267.716 {126}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000155	Re-Slope:	1.000000
A1 (Gain):	0.209259	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999727	Status:	OK.
Std Error of Est:	0.000036		
Predicted MDL:	0.000359		
Predicted MQL:	0.001198		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00015	.000	1
S1	.01000	.00925	-.001	-7.54	.00209	.000	1
S3	.50000	.51558	.016	3.12	.10807	.000	1
S4	1.0000	.96982	-.030	-3.02	.20316	.001	1
S5	2.0000	2.0061	.006	.304	.42007	.002	1
S2	.16000	.16928	.009	5.80	.03559	.000	1

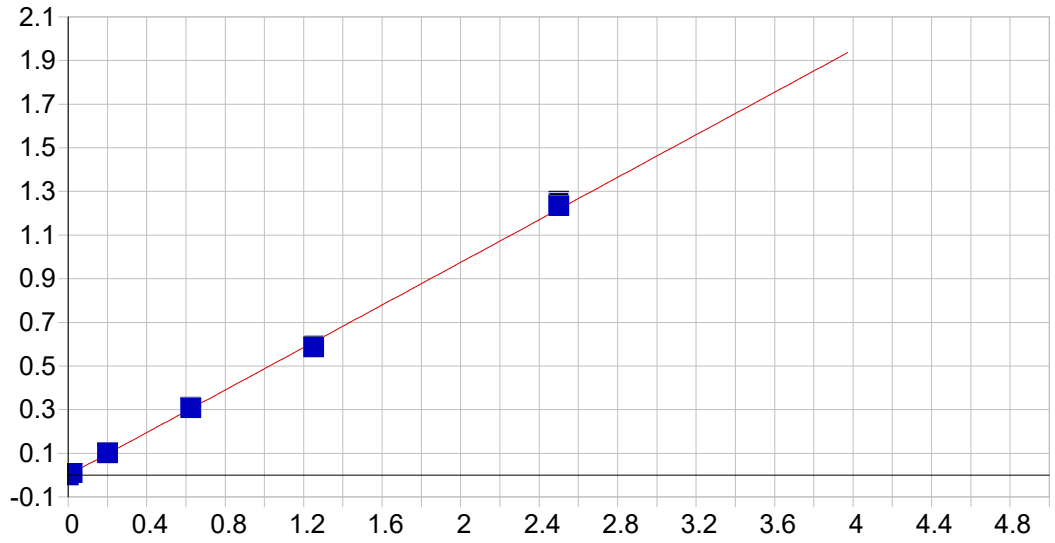


Co 228.616 {448}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000083	Re-Slope:	1.000000
A1 (Gain):	0.879931	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999549	Status:	OK.
Std Error of Est:	0.000538		
Predicted MDL:	0.000191		
Predicted MQL:	0.000636		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00009	.000	1
S1	.03000	.02891	-.001	-3.62	.02541	.000	1
S3	1.2500	1.2376	-.012	-.993	1.0909	.001	1
S4	2.5000	2.3893	-.111	-4.43	2.1062	.001	1
S5	5.0000	5.1271	.127	2.54	4.5190	.014	1
S2	.40000	.39712	-.003	-.719	.35012	.002	1

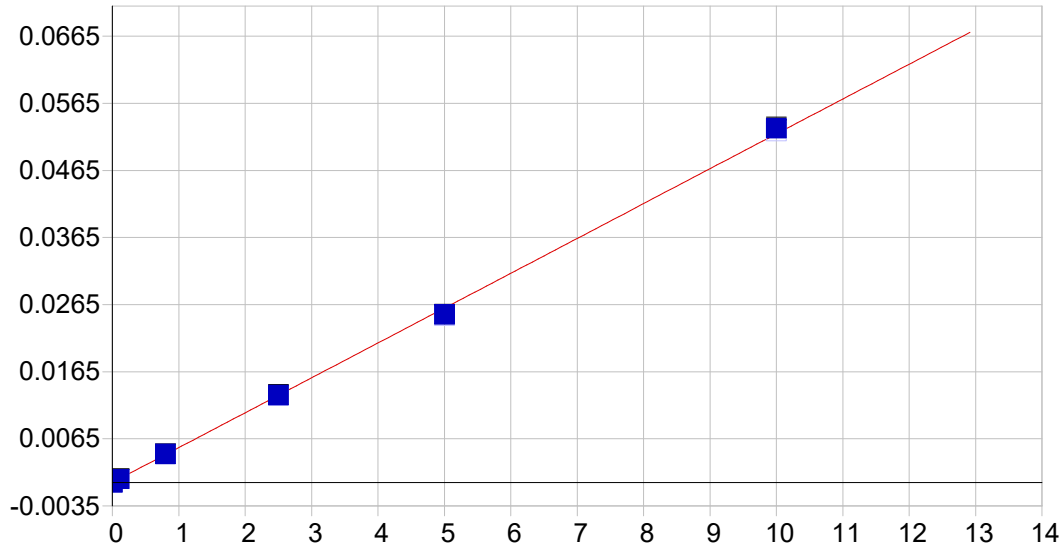


Cu 224.700 {450}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000173	Re-Slope:	1.000000
A1 (Gain):	0.487503	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999715	Status:	OK.
Std Error of Est:	0.000138		
Predicted MDL:	0.000519		
Predicted MQL:	0.001729		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00017	.000	1
S1	.02000	.02103	.001	5.17	.01024	.000	1
S3	.62500	.63022	.005	.835	.31071	.000	1
S4	1.2500	1.2021	-.048	-3.83	.59315	.000	1
S5	2.5000	2.5340	.034	1.36	1.2498	.005	1
S2	.20000	.20763	.008	3.82	.10222	.001	1

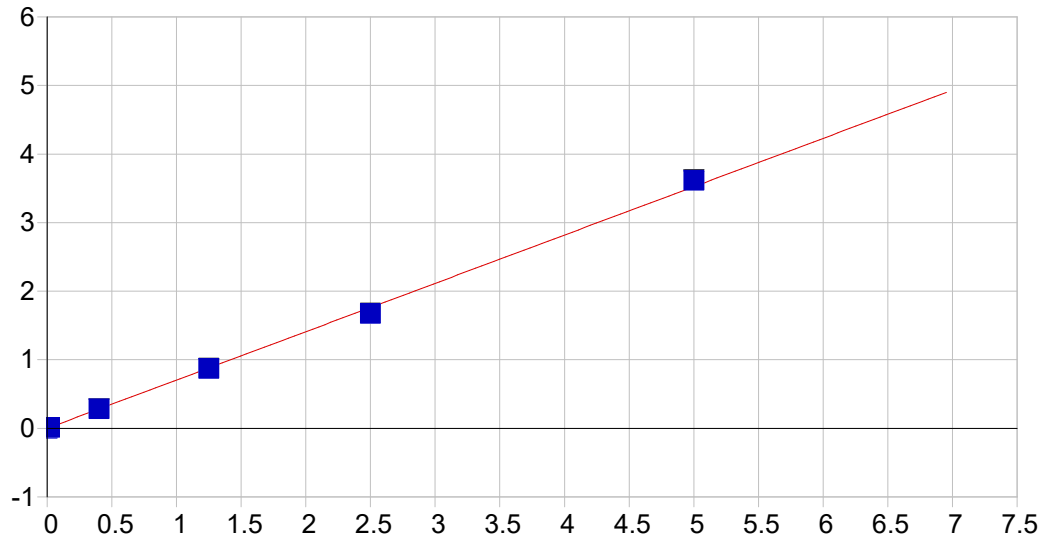


Fe 240.488 {140}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000003	Re-Slope:	1.000000
A1 (Gain):	0.005195	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999741	Status:	OK.
Std Error of Est:	0.000006		
Predicted MDL:	0.004390		
Predicted MQL:	0.014633		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00000	.000	1
S1	.10000	.10164	.002	1.64	.00052	.000	1
S3	2.5000	2.5025	.003	.101	.01289	.000	1
S4	5.0000	4.8201	-.180	-3.60	.02482	.000	1
S5	10.000	10.159	.159	1.59	.05233	.000	1
S2	.80000	.81661	.017	2.08	.00420	.000	1

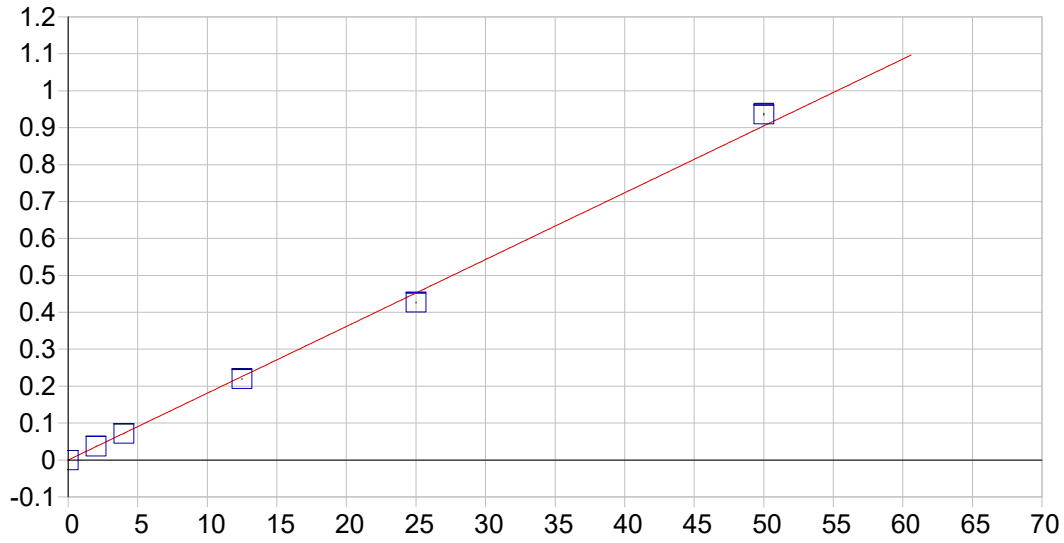


Mn 257.610 {131}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000035	Re-Slope:	1.000000
A1 (Gain):	0.704742	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999472	Status:	OK.
Std Error of Est:	0.000380		
Predicted MDL:	0.000276		
Predicted MQL:	0.000919		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00004	.000	1
S1	.02000	.01993	-.000	-.328	.01409	.000	1
S3	1.2500	1.2373	-.013	-1.02	.87218	.006	1
S4	2.5000	2.3774	-.123	-4.91	1.6758	.004	1
S5	5.0000	5.1331	.133	2.66	3.6182	.013	1
S2	.40000	.40235	.002	.587	.28364	.002	1

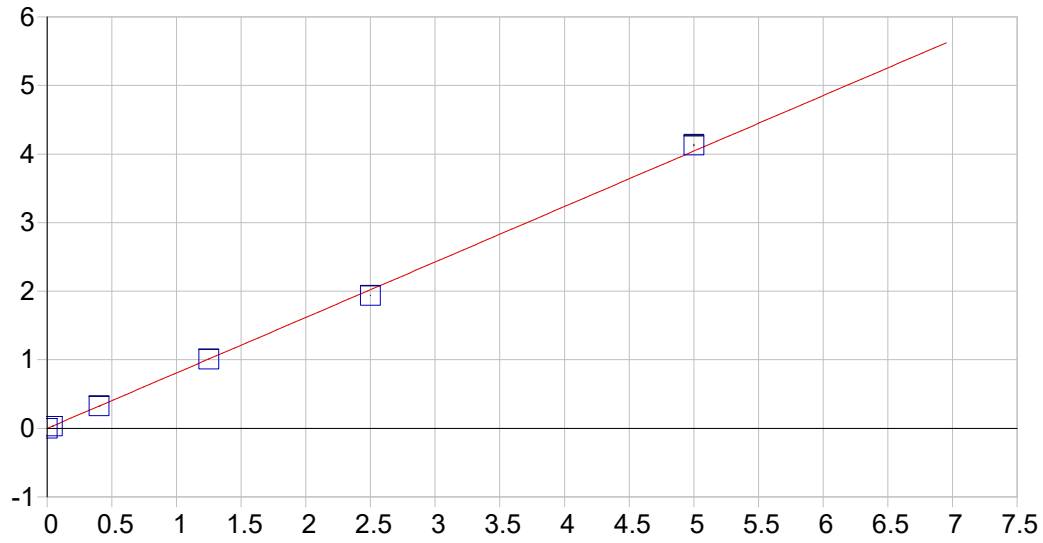


Mg 279.079 {121}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000093	Re-Slope:	1.000000
A1 (Gain):	0.018096	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999179	Status:	OK.
Std Error of Est:	0.000388		
Predicted MDL:	0.011570		
Predicted MQL:	0.038567		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00006	.000	.000	-.00009	.000	1
S2	4.0000	3.9421	-.058	-1.45	.07125	.001	1
S3	12.500	12.145	-.355	-2.84	.21969	.001	1
S4	25.000	23.594	-1.41	-5.62	.42688	.001	1
S5	50.000	51.751	1.75	3.50	.93643	.002	1
S1	2.0000	2.0673	.067	3.36	.03732	.000	1

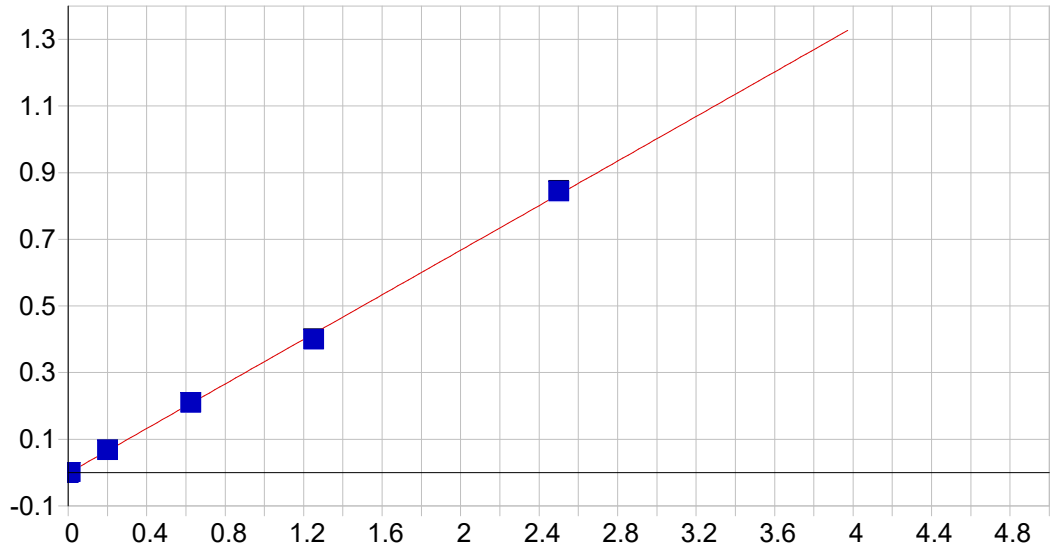


Ni 231.604 {446}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000183	Re-Slope:	1.000000
A1 (Gain):	0.808726	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999638	Status:	OK.
Std Error of Est:	0.000511		
Predicted MDL:	0.000251		
Predicted MQL:	0.000837		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00018	.000	1
S1	.04000	.03891	-.001	-2.73	.03128	.000	1
S3	1.2500	1.2468	-.003	-.259	1.0081	.001	1
S4	2.5000	2.3956	-.104	-4.18	1.9372	.002	1
S5	5.0000	5.1059	.106	2.12	4.1291	.012	1
S2	.40000	.40282	.003	.705	.32559	.001	1

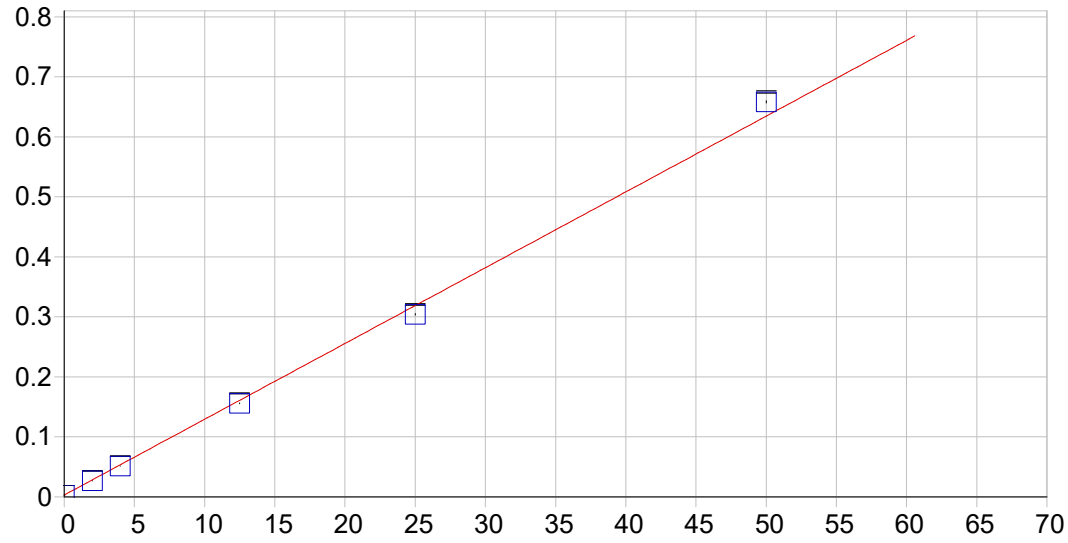


Ag 328.068 {103}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001482	Re-Slope:	1.000000
A1 (Gain):	0.334377	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999692	Status:	OK.
Std Error of Est:	0.000069		
Predicted MDL:	0.000320		
Predicted MQL:	0.001066		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	-.00148	.000	1
S1	.01000	.01016	.000	1.63	.00189	.000	1
S3	.62500	.63285	.008	1.26	.20930	.000	1
S4	1.2500	1.2011	-.049	-3.91	.39849	.001	1
S5	2.5000	2.5322	.032	1.29	.84191	.002	1
S2	.20000	.20866	.009	4.33	.06802	.000	1

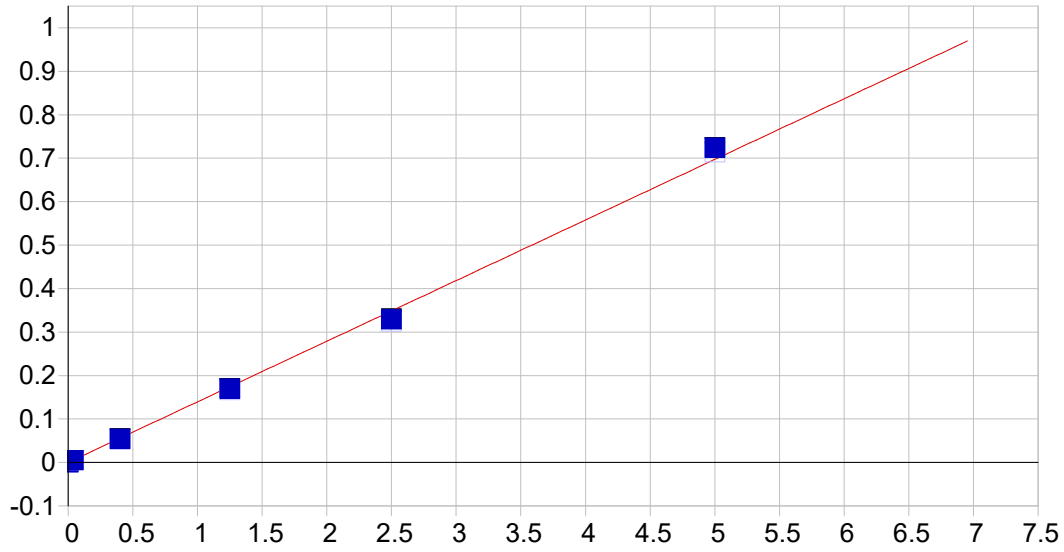


Na 589.592 { 57}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.003157	Re-Slope:	1.000000
A1 (Gain):	0.012626	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999176	Status:	OK.
Std Error of Est:	0.000271		
Predicted MDL:	0.012398		
Predicted MQL:	0.041326		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00030	.000	.000	.00316	.000	1
S2	4.0000	3.8172	-.183	-4.57	.05135	.000	1
S3	12.500	12.100	-.400	-3.20	.15593	.001	1
S4	25.000	23.838	-1.16	-4.65	.30413	.001	1
S5	50.000	51.876	1.88	3.75	.65814	.002	1
S1	2.0000	1.8688	-.131	-6.56	.02675	.000	1

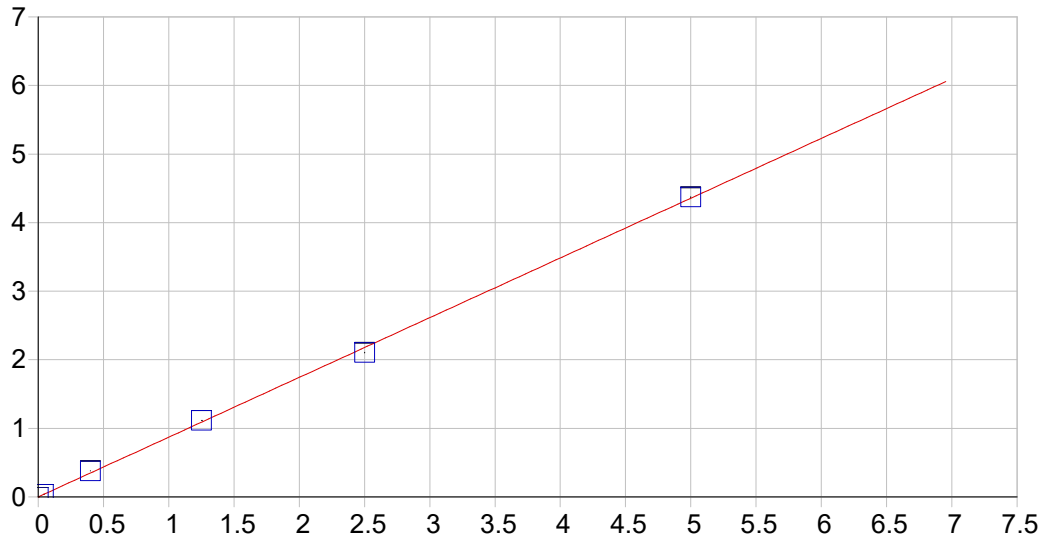


V 292.402 {115}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000039	Re-Slope:	1.000000
A1 (Gain):	0.139440	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999066	Status:	OK.
Std Error of Est:	0.000139		
Predicted MDL:	0.001554		
Predicted MQL:	0.005181		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00001	.000	.000	.00004	.000	1
S1	.04000	.03717	-.003	-7.07	.00501	.000	1
S3	1.2500	1.2125	-.038	-3.00	.16657	.001	1
S4	2.5000	2.3609	-.139	-5.56	.32417	.001	1
S5	5.0000	5.1909	.191	3.82	.71370	.001	1
S2	.40000	.38837	-.012	-2.91	.05338	.000	1

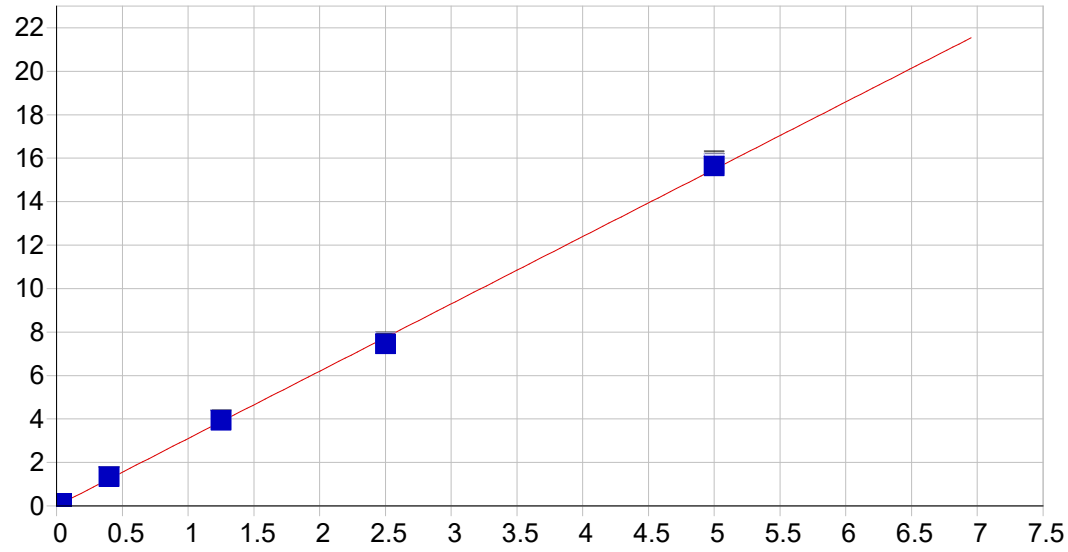


Zn 206.200 {464}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000257	Re-Slope:	1.000000
A1 (Gain):	0.871240	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999618	Status:	OK.
Std Error of Est:	0.000565		
Predicted MDL:	0.000193		
Predicted MQL:	0.000644		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00001	-.000	.000	.00025	.000	1
S1	.04000	.04233	.002	5.82	.03713	.000	1
S3	1.2500	1.2806	.031	2.45	1.1160	.002	1
S4	2.5000	2.4142	-.086	-3.43	2.1036	.004	1
S5	5.0000	5.0174	.017	.349	4.3716	.006	1
S2	.40000	.43543	.035	8.86	.37962	.002	1

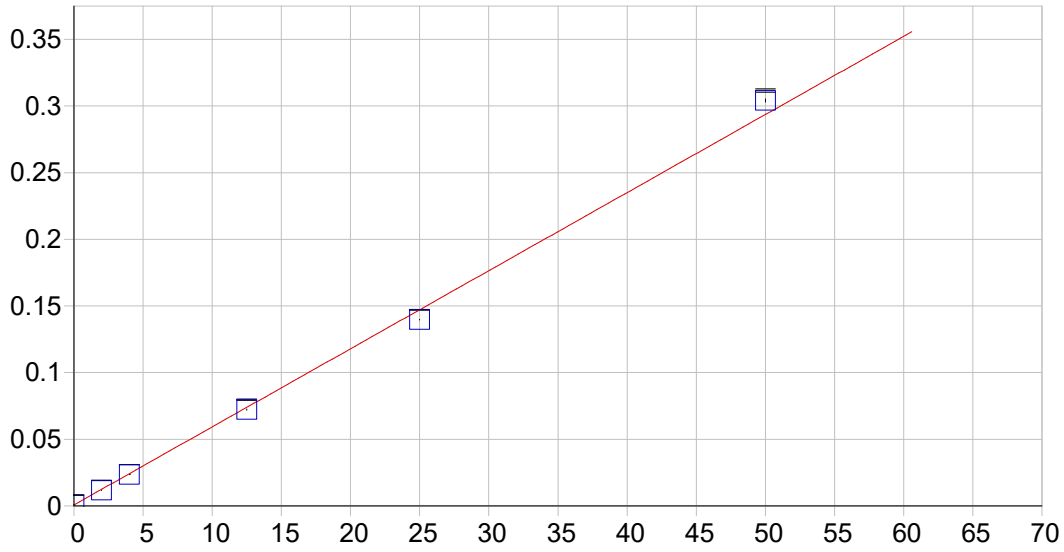


Zn 213.856 {158}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.002316	Re-Slope:	1.000000
A1 (Gain):	3.098002	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999640	Status:	OK.
Std Error of Est:	0.001964		
Predicted MDL:	0.000264		
Predicted MQL:	0.000879		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	-.00000	-.000	.000	.00230	.000	1
S1	.04000	.04174	.002	4.35	.13250	.001	1
S3	1.2500	1.2693	.019	1.55	3.9616	.015	1
S4	2.5000	2.4038	-.096	-3.85	7.5030	.029	1
S5	5.0000	5.0454	.045	.907	15.741	.133	1
S2	.40000	.42979	.030	7.45	1.3424	.005	1

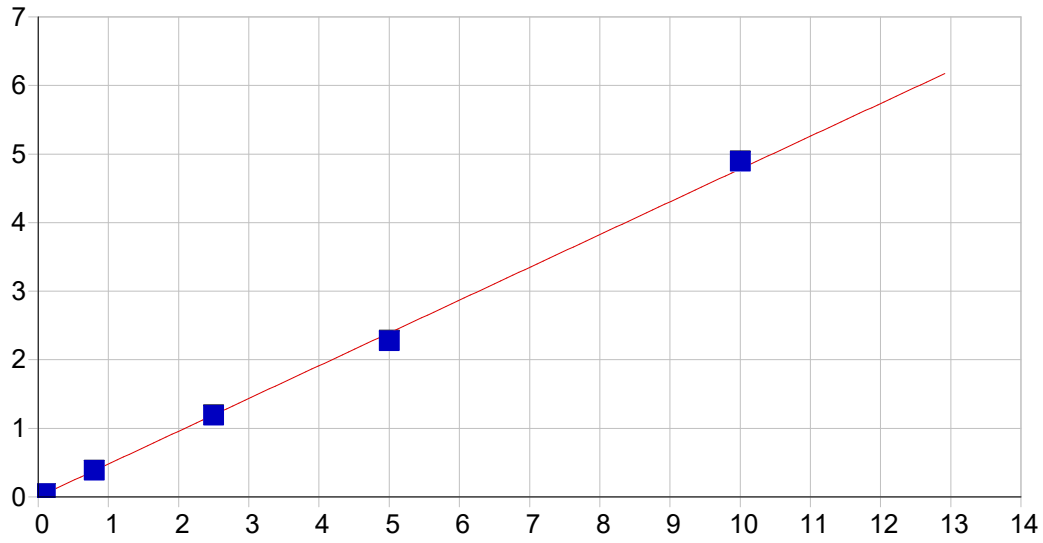


K 766.490 { 44}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000716	Re-Slope:	1.000000
A1 (Gain):	0.005858	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999199	Status:	OK.
Std Error of Est:	0.000124		
Predicted MDL:	0.030057		
Predicted MQL:	0.100190		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00026	.000	.000	.00072	.000	1
S2	4.0000	3.8877	-.112	-2.81	.02349	.000	1
S3	12.500	12.207	-.293	-2.34	.07223	.001	1
S4	25.000	23.719	-1.28	-5.12	.13967	.000	1
S5	50.000	51.815	1.82	3.63	.30426	.001	1
S1	2.0000	1.8707	-.129	-6.47	.01167	.000	1

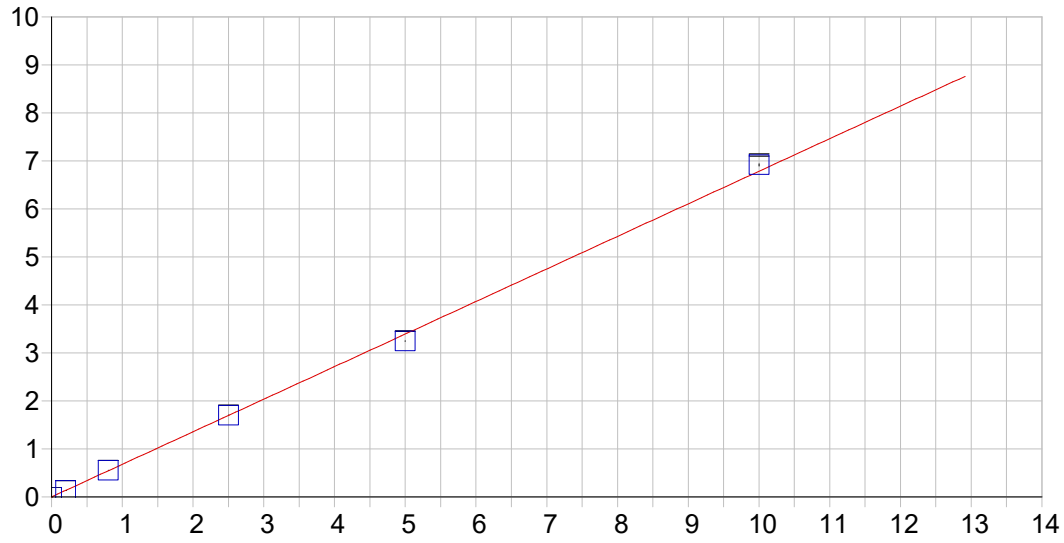


B 249.678 {135}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001292	Re-Slope:	1.000000
A1 (Gain):	0.477996	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999539	Status:	OK.
Std Error of Est:	0.000760		
Predicted MDL:	0.000626		
Predicted MQL:	0.002087		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00129	.000	1
S1	.10000	.09976	-.000	-.237	.04877	.000	1
S3	2.5000	2.4875	-.013	-.500	1.1880	.006	1
S4	5.0000	4.7654	-.235	-4.69	2.2745	.008	1
S5	10.000	10.240	.240	2.40	4.8866	.006	1
S2	.80000	.80746	.007	.933	.38651	.000	1

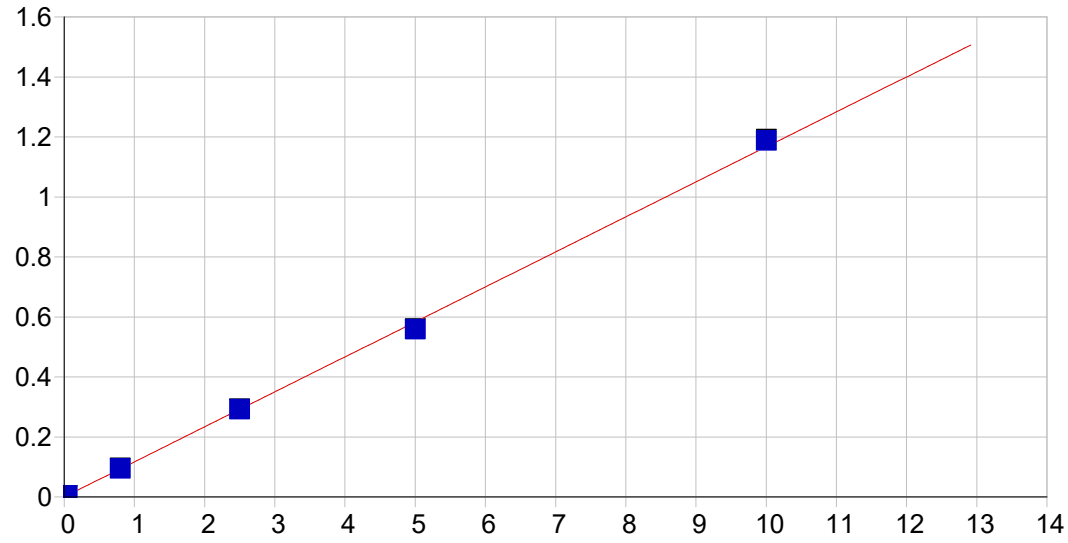


Mo 202.030 {467}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000245	Re-Slope:	1.000000
A1 (Gain):	0.678450	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999636	Status:	OK.
Std Error of Est:	0.001363		
Predicted MDL:	0.000259		
Predicted MQL:	0.000863		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00025	.000	1
S1	.20000	.19859	-.001	-.706	.13498	.001	1
S3	2.5000	2.5076	.008	.305	1.7015	.002	1
S4	5.0000	4.7838	-.216	-4.32	3.2458	.006	1
S5	10.000	10.196	.196	1.96	6.9178	.022	1
S2	.80000	.81387	.014	1.73	.55241	.002	1

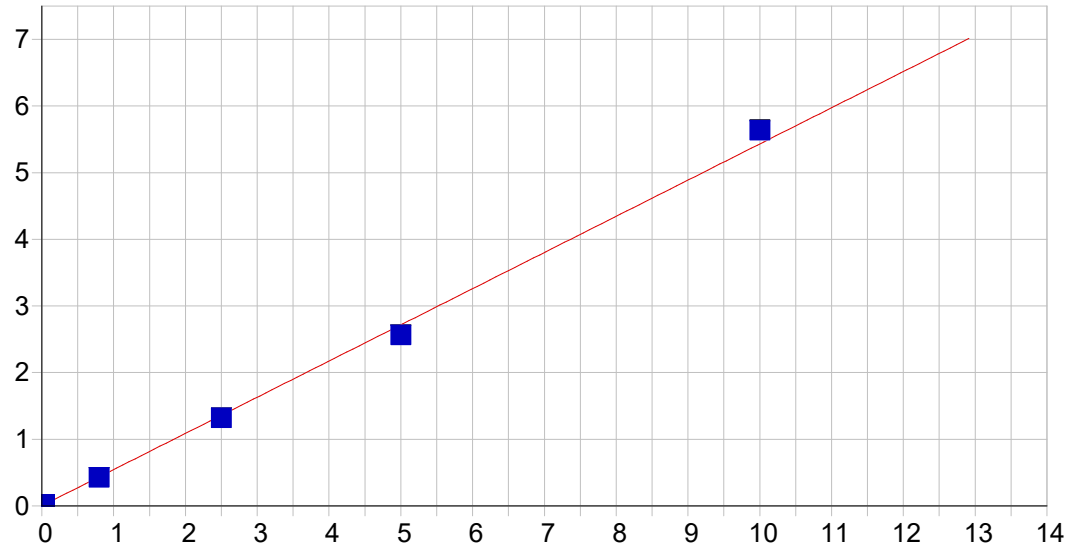


Sn 189.989 {478}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000153	Re-Slope:	1.000000
A1 (Gain):	0.116643	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999658	Status:	OK.
Std Error of Est:	0.000101		
Predicted MDL:	0.000729		
Predicted MQL:	0.002429		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00015	.000	1
S1	.04000	.03818	-.002	-4.56	.00460	.000	1
S3	2.5000	2.5080	.008	.318	.29239	.000	1
S4	5.0000	4.7921	-.208	-4.16	.55852	.002	1
S5	10.000	10.186	.186	1.86	1.1871	.004	1
S2	.80000	.81563	.016	1.95	.09519	.001	1

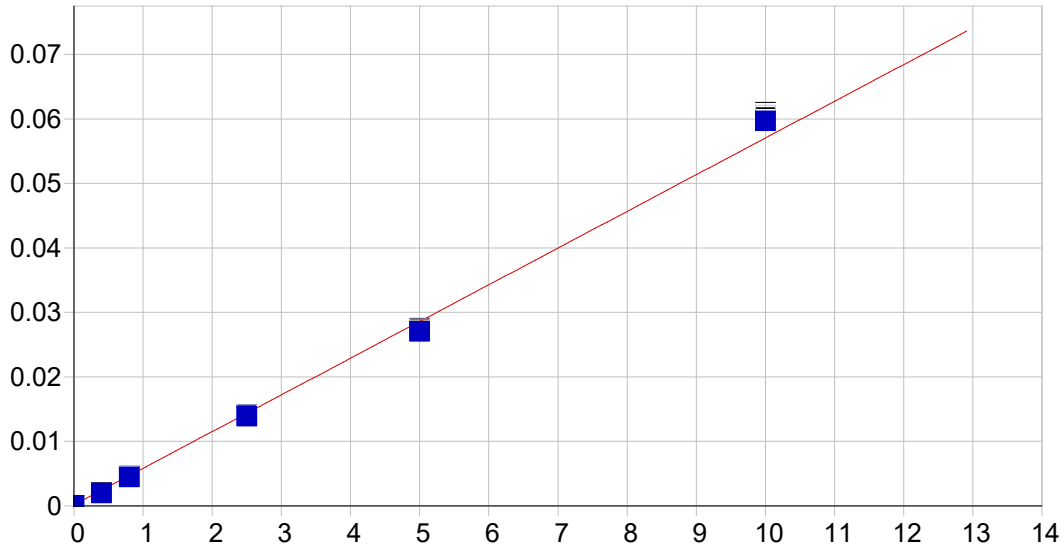


Ti 336.121 {100}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.001570	Re-Slope:	1.000000
A1 (Gain):	0.543008	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999110	Status:	OK.
Std Error of Est:	0.000760		
Predicted MDL:	0.000593		
Predicted MQL:	0.001978		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00157	.000	1
S1	.04000	.03803	-.002	-4.92	.02221	.000	1
S3	2.5000	2.4276	-.072	-2.89	1.3193	.007	1
S4	5.0000	4.7174	-.283	-5.65	2.5622	.006	1
S5	10.000	10.375	.375	3.75	5.6335	.008	1
S2	.80000	.78165	-.018	-2.29	.42586	.001	1

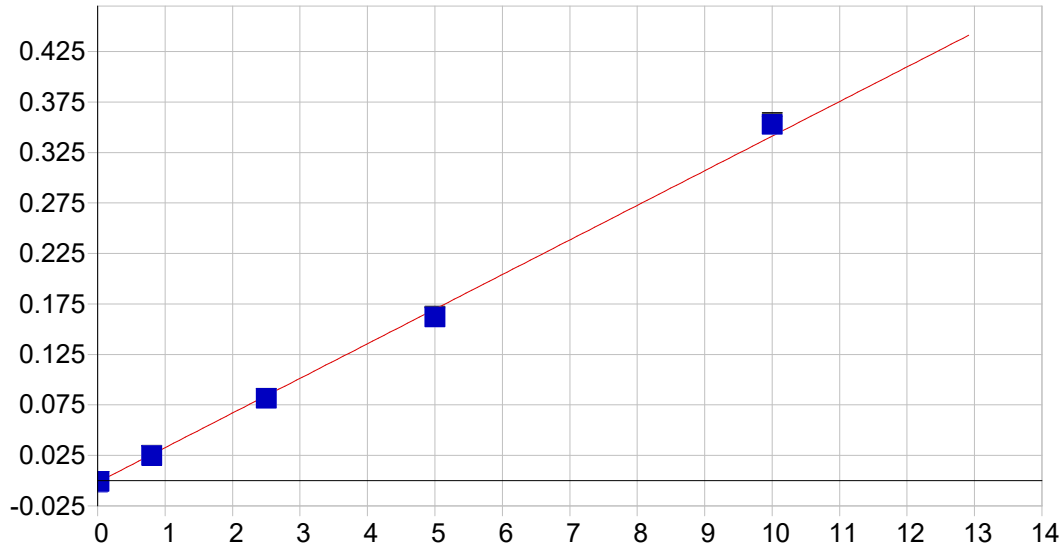


Si 288.158 {117}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000146	Re-Slope:	1.000000
A1 (Gain):	0.005690	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998566	Status:	OK.
Std Error of Est:	0.000033		
Predicted MDL:	0.007120		
Predicted MQL:	0.023733		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00011	.000	.000	.00015	.000	1
S1	.40000	.32568	-.074	-18.6	.00200	.000	1
S3	2.5000	2.4202	-.080	-3.19	.01413	.000	1
S4	5.0000	4.7226	-.277	-5.55	.02744	.000	1
S5	10.000	10.467	.467	4.67	.06056	.000	1
S2	.80000	.76316	-.037	-4.60	.00456	.000	1

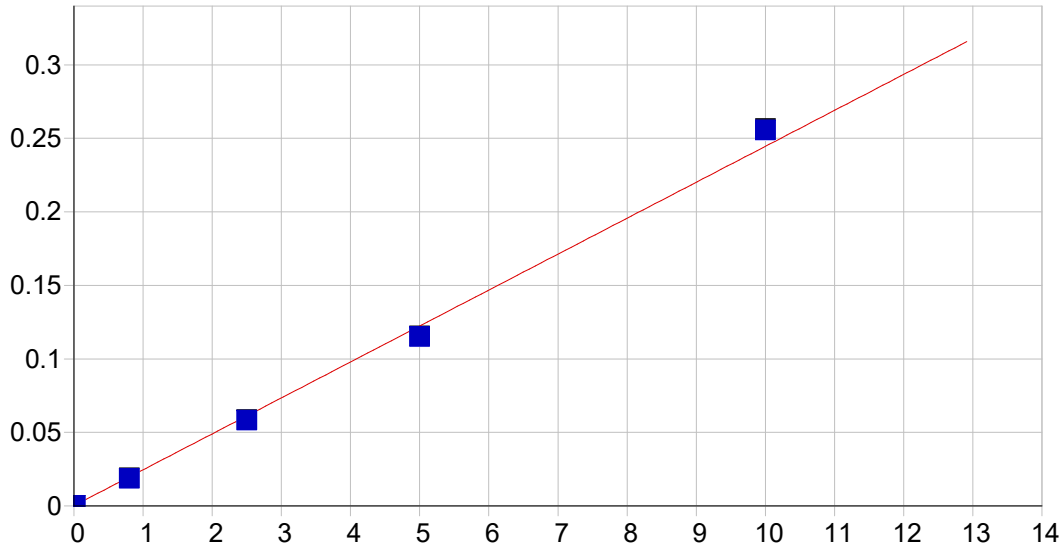


P 177.495 {490}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.001564	Re-Slope:	1.000000
A1 (Gain):	0.034277	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999312	Status:	OK.
Std Error of Est:	0.000030		
Predicted MDL:	0.002403		
Predicted MQL:	0.008012		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00156	.000	1
S1	.02000	.01959	-.000	-2.03	-.00089	.000	1
S3	2.5000	2.4197	-.080	-3.21	.08136	.000	1
S4	5.0000	4.7729	-.227	-4.54	.16201	.001	1
S5	10.000	10.336	.336	3.36	.35268	.002	1
S2	.80000	.77141	-.029	-3.57	.02487	.000	1

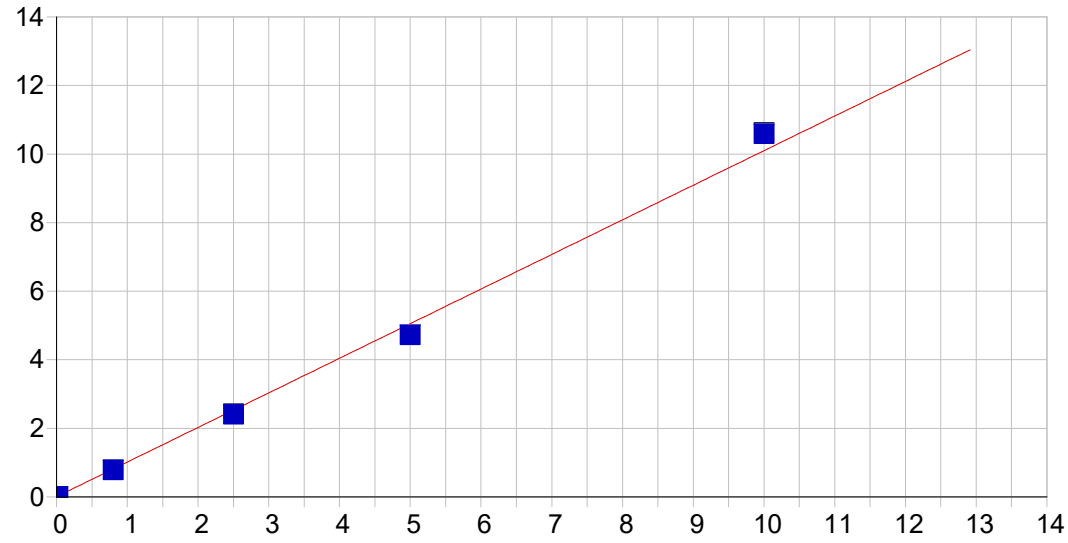


S 182.034 {485}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.000130	Re-Slope:	1.000000
A1 (Gain):	0.024447	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998742	Status:	OK.
Std Error of Est:	0.000029		
Predicted MDL:	0.003211		
Predicted MQL:	0.010702		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00013	.000	1
S1	.02000	.02084	.001	4.19	.00062	.000	1
S3	2.5000	2.3767	-.123	-4.93	.05807	.000	1
S4	5.0000	4.7047	-.295	-5.91	.11483	.001	1
S5	10.000	10.455	.455	4.55	.25508	.001	1
S2	.80000	.76306	-.037	-4.62	.01873	.000	1

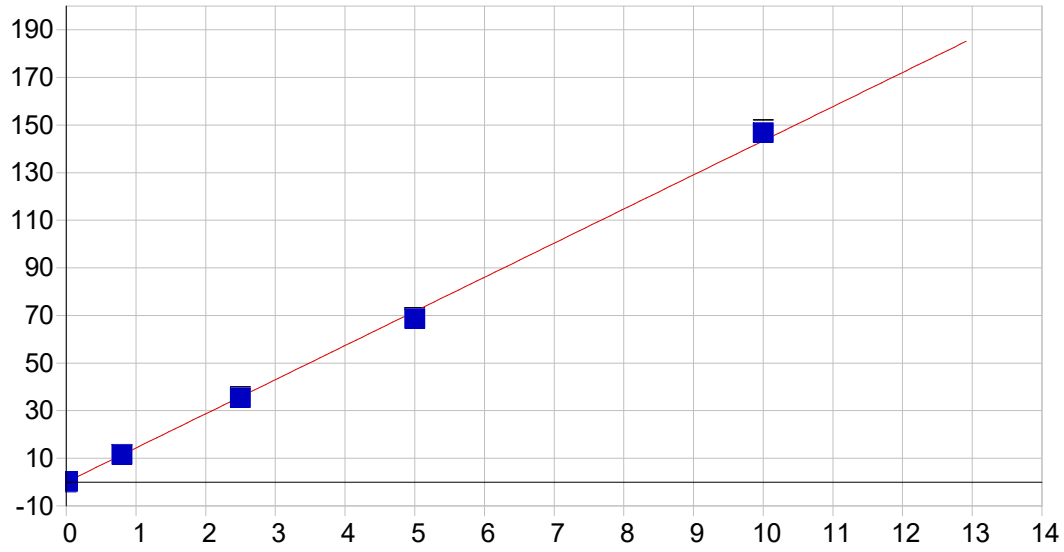


Li 670.784 { 50}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	0.006499	Re-Slope:	1.000000
A1 (Gain):	1.009305	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.998564	Status:	OK.
Std Error of Est:	0.001270		
Predicted MDL:	0.000898		
Predicted MQL:	0.002993		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	.00650	.000	1
S5	10.000	10.486	.486	4.86	10.599	.020	1
S4	5.0000	4.6729	-.327	-6.54	4.7274	.009	1
S3	2.5000	2.3757	-.124	-4.97	2.4066	.014	1
S1	.02000	.01766	-.002	-11.7	.02468	.001	1
S2	.80000	.76748	-.033	-4.07	.78185	.003	1

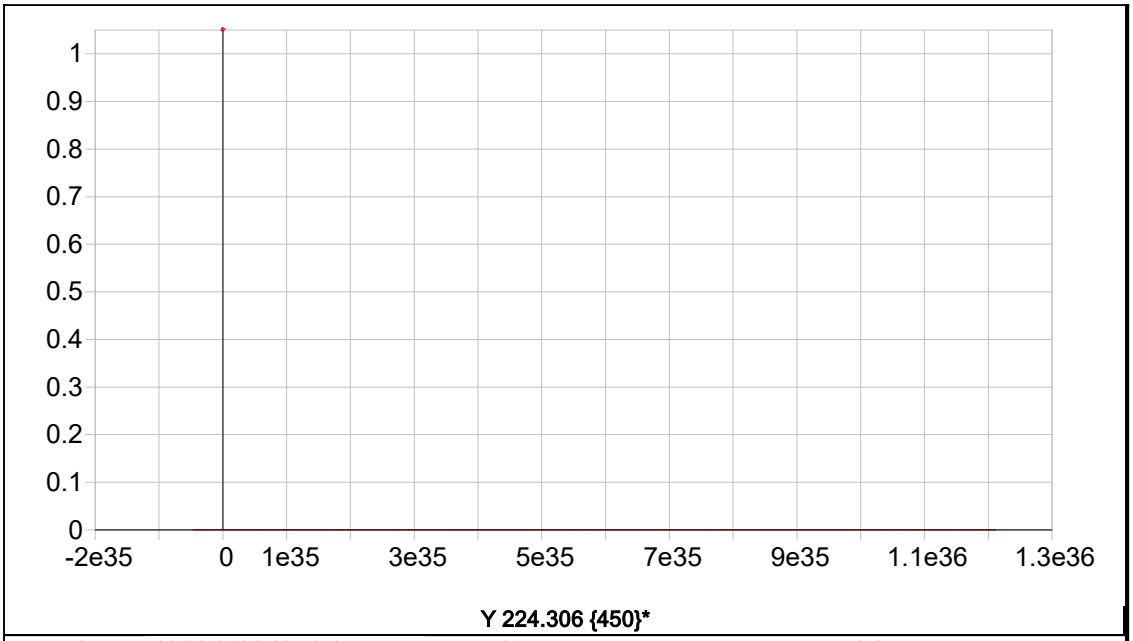


Sr 407.771 { 83}

Date of Fit:	12/23/2024 13:53:15	Type of Fit:	Linear	Weighting:	1/Conc

A0 (Offset):	-0.000736	Re-Slope:	1.000000
A1 (Gain):	14.340461	Y-int:	0.000000
A2 (Curvature):	0.000000		
n (Exponent):	1.000000		
Correlation:	0.999606	Status:	OK.
Std Error of Est:	0.009442		
Predicted MDL:	0.000038		
Predicted MQL:	0.000128		

Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis
S0	.00000	.00000	.000	.000	-.00072	.000	1
S1	.02000	.01938	-.001	-3.09	.27863	.002	1
S3	2.5000	2.4751	-.025	-.997	35.529	.320	1
S4	5.0000	4.7895	-.210	-4.21	68.755	.365	1
S5	10.000	10.230	.230	2.30	146.85	1.32	1
S2	.80000	.80586	.006	.733	11.567	.035	1

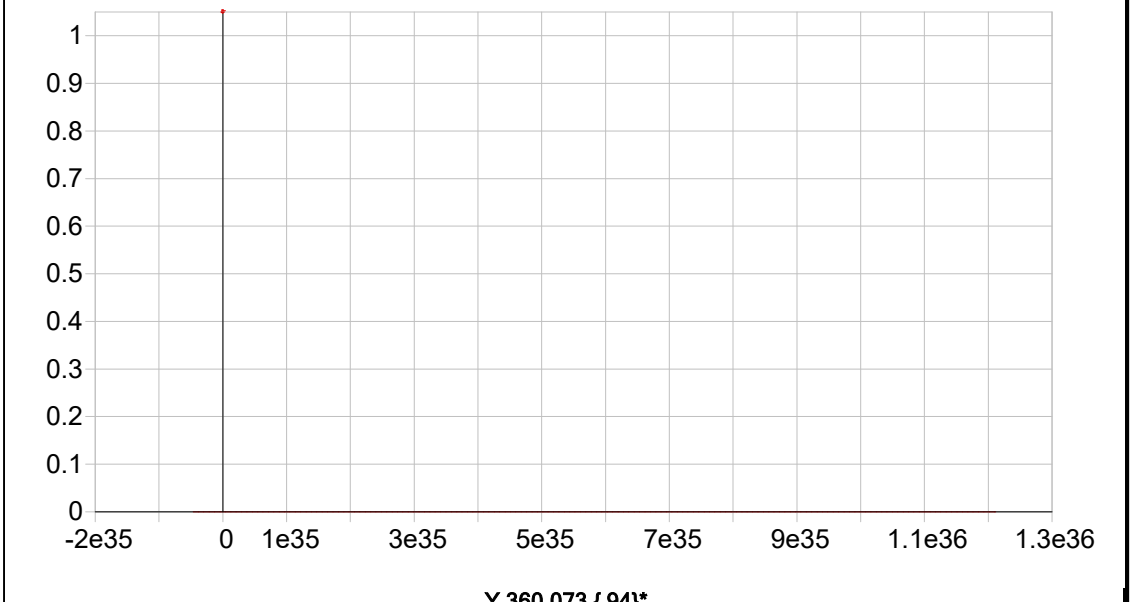


Y 224.306 {450}*

Date of Fit:	12/23/2024 13:53:15	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



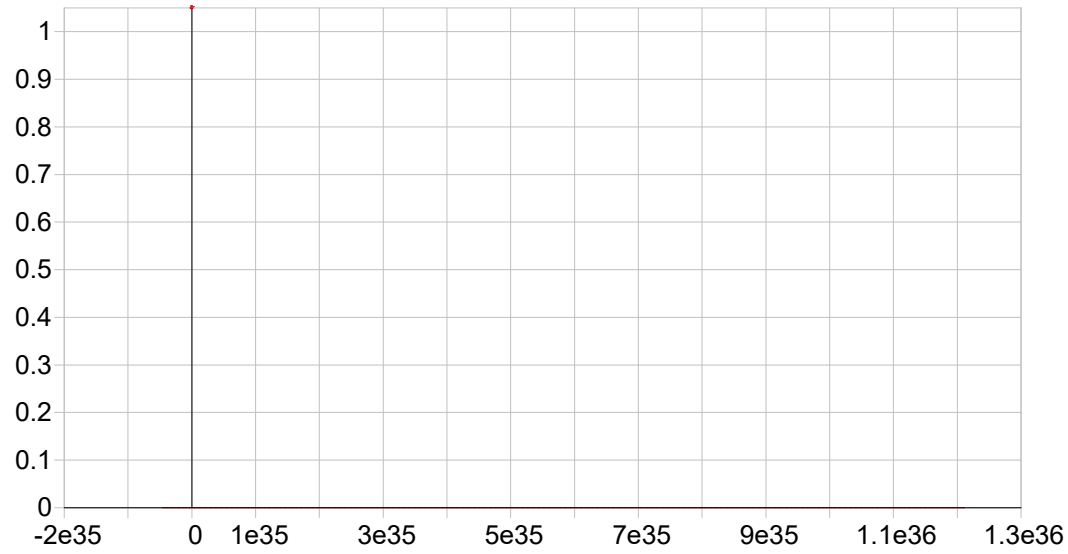
Y 360.073 { 94}*

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

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					

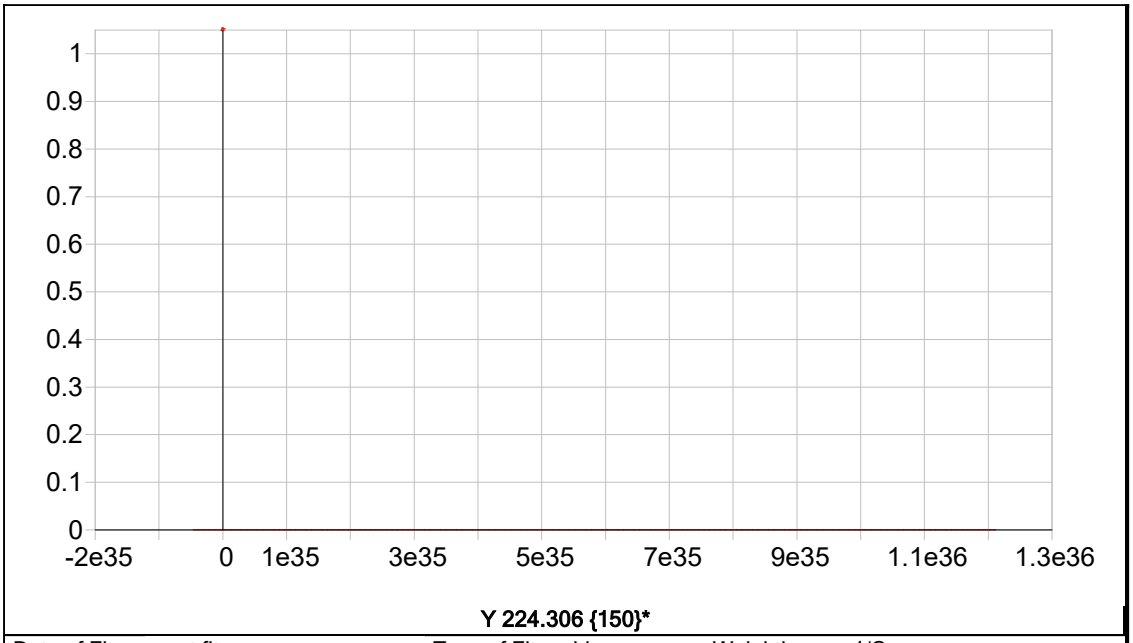
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



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				

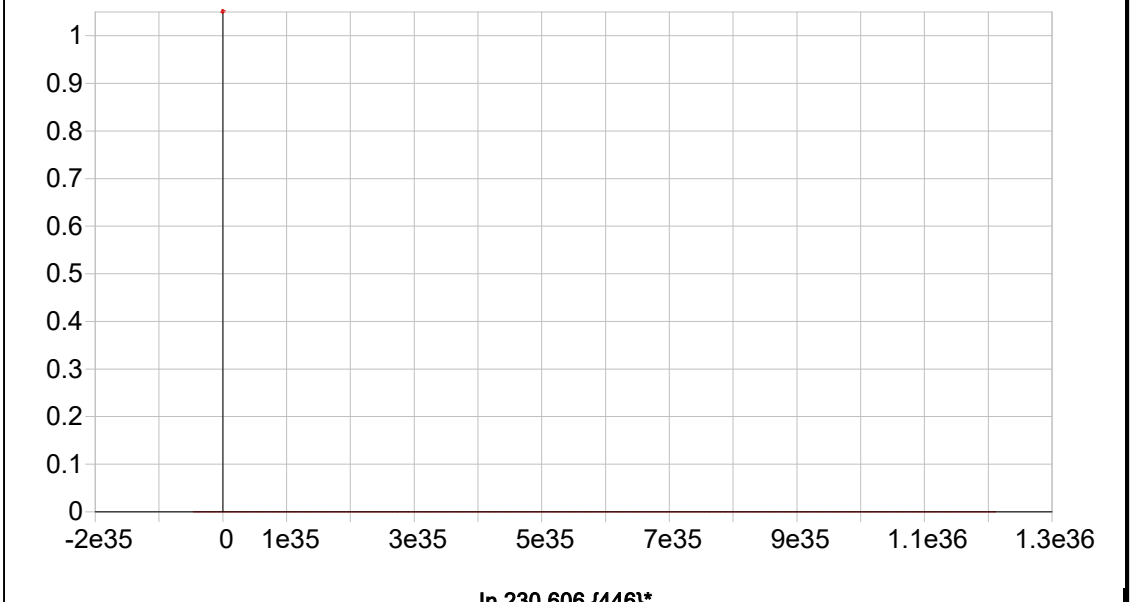
Std. Name	Stated Conc.	Found Conc.	Difference	% Diff.	(S)IR	Std Dev	Emphasis



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	

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

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: S0 Acquired: 12/23/2024 10:51:36 Type: Cal
Method: NON EPA-6010-200.7(v2547) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.00013	-.00001	-.00021	.00044	.00031	-.00038	.04210	-.00055
Stddev	.00005	.00006	.00013	.00012	.00016	.00025	.00027	.00023
%RSD	39.188	479.36	61.315	26.613	51.973	65.094	.64823	41.022
#1	-.00014	.00006	-.00028	.00037	.00012	-.00020	.04180	-.00033
#2	-.00007	-.00004	-.00006	.00038	.00040	-.00067	.04214	-.00056
#3	-.00018	-.00005	-.00029	.00058	.00041	-.00029	.04234	-.00078

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	.00003	.00033	.00015	.00009	-.00017	-.00000	.00004	-.00009
Stddev	.00011	.00011	.00003	.00005	.00016	.00001	.00020	.00003
%RSD	453.75	33.835	18.626	55.612	92.194	401.76	562.91	37.315
#1	.00016	.00043	.00014	.00003	-.00014	.00000	.00026	-.00011
#2	-.00006	.00034	.00019	.00011	-.00035	-.00002	-.00012	-.00005
#3	-.00002	.00021	.00014	.00011	-.00003	.00001	-.00004	-.00012

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	-.00018	-.00148	.00316	.00004	.00230	.00072	.00129	.00025
Stddev	.00005	.00005	.00027	.00020	.00022	.00017	.00010	.00011
%RSD	27.609	3.1692	8.5767	491.05	9.6168	23.203	8.1190	43.978
#1	-.00016	-.00153	.00285	.00020	.00235	.00053	.00119	.00037
#2	-.00014	-.00144	.00327	.00010	.00250	.00083	.00130	.00019
#3	-.00024	-.00148	.00336	-.00018	.00206	.00079	.00140	.00018

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00015	.00157	.00015	-.00156	.00013	.00650	-.00072
Stddev	.00003	.00019	.00001	.00003	.00005	.00041	.00025
%RSD	17.737	11.809	5.6686	2.1828	35.901	6.2821	34.669
#1	.00016	.00136	.00014	-.00159	.00018	.00604	-.00055
#2	.00018	.00164	.00015	-.00153	.00011	.00683	-.00060
#3	.00012	.00171	.00015	-.00158	.00010	.00664	-.00101

Sample Name: S0 Acquired: 12/23/2024 10:51:36 Type: Cal
Method: NON EPA-6010-200.7(v2547) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3317.4	70472.	12523.	2371.3	5114.2
Stddev	14.2	227.	13.	5.9	23.6
%RSD	.42846	.32203	.10032	.25053	.46052
#1	3319.9	70326.	12524.	2364.5	5120.1
#2	3330.3	70357.	12534.	2374.3	5134.2
#3	3302.2	70734.	12509.	2375.2	5088.2

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: S1 Acquired: 12/23/2024 10:56:04 Type: Cal
Method: NON EPA-6010-200.7(v2547) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.00094	.00294	.00248	.00195	.00821	.00789	.35553	.02551
Stddev	.00004	.00007	.00009	.00010	.00021	.00042	.00220	.00032
%RSD	3.9043	2.4787	3.6006	5.2241	2.5596	5.2838	.61871	1.2498
#1	.00096	.00290	.00249	.00183	.00843	.00815	.35763	.02585
#2	.00096	.00291	.00238	.00202	.00802	.00810	.35324	.02522
#3	.00090	.00303	.00256	.00198	.00817	.00741	.35571	.02544

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	.01333	.12110	.00209	.02541	.01024	.00052	.01409	.03732
Stddev	.00007	.00075	.00006	.00008	.00016	.00001	.00012	.00025
%RSD	.55488	.62100	3.0780	.32375	1.6065	.97642	.86162	.67280
#1	.01342	.12148	.00216	.02535	.01040	.00051	.01395	.03761
#2	.01328	.12158	.00203	.02539	.01024	.00052	.01417	.03720
#3	.01330	.12023	.00209	.02551	.01007	.00052	.01415	.03715

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	.03128	.00189	.02675	.00501	.13250	.01167	.04877	.13498
Stddev	.00007	.00001	.00022	.00008	.00111	.00008	.00038	.00073
%RSD	.23213	.63940	.82071	1.5142	.84074	.68456	.77110	.54198
#1	.03128	.00190	.02650	.00510	.13143	.01176	.04915	.13414
#2	.03121	.00188	.02686	.00496	.13242	.01161	.04877	.13548
#3	.03136	.00190	.02690	.00498	.13365	.01166	.04840	.13532

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	.00460	.02221	.00200	-.00089	.00062	.02468	.27863
Stddev	.00009	.00029	.00002	.00011	.00001	.00079	.00169
%RSD	1.9753	1.3225	.78564	12.881	1.7169	3.1903	.60666
#1	.00465	.02254	.00201	-.00099	.00061	.02381	.28058
#2	.00450	.02211	.00198	-.00092	.00063	.02489	.27761
#3	.00466	.02197	.00201	-.00077	.00061	.02534	.27771

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: S1 Acquired: 12/23/2024 10:56:04 Type: Cal
Method: NON EPA-6010-200.7(v2547) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3253.9	69275.	12408.	2311.3	4961.2
Stddev	6.4	319.	86.	10.6	4.7
%RSD	.19548	.46009	.69491	.45888	.09461
#1	3258.9	68933.	12309.	2299.5	4963.4
#2	3255.9	69564.	12465.	2320.1	4964.4
#3	3246.7	69328.	12450.	2314.4	4955.8

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: S2 Acquired: 12/23/2024 11:00:29 Type: Cal
Method: NON EPA-6010-200.7(v2547) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.04143	.06500	.19388	.06122	.12997	.12222	5.2226	.18226
Stddev	.00020	.00075	.00089	.00029	.00056	.00051	.0168	.00026
%RSD	.47182	1.1565	.45979	.47512	.43346	.41851	.32073	.14374
#1	.04150	.06557	.19490	.06149	.13023	.12163	5.2103	.18217
#2	.04158	.06527	.19339	.06126	.13036	.12257	5.2417	.18255
#3	.04121	.06415	.19333	.06091	.12933	.12245	5.2158	.18205

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	.91967	.25589	.03559	.35012	.10222	.00420	.28364	.07125
Stddev	.00418	.00051	.00028	.00175	.00052	.00005	.00184	.00065
%RSD	.45485	.20008	.79964	.50125	.50771	1.0908	.64928	.91616
#1	.92450	.25533	.03587	.35207	.10276	.00419	.28284	.07049
#2	.91752	.25600	.03559	.34964	.10173	.00426	.28575	.07157
#3	.91701	.25633	.03530	.34866	.10215	.00417	.28235	.07167

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	.32559	.06802	.05135	.05338	1.3424	.02349	.38651	.55241
Stddev	.00143	.00021	.00035	.00023	.0049	.00004	.00004	.00194
%RSD	.43965	.31278	.68741	.43732	.36187	.16933	.01138	.35117
#1	.32724	.06826	.05164	.05311	1.3478	.02354	.38653	.55465
#2	.32483	.06795	.05146	.05353	1.3383	.02348	.38654	.55123
#3	.32469	.06786	.05096	.05350	1.3411	.02346	.38646	.55135

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	.09519	.42586	.00456	.02487	.01873	.78185	11.567
Stddev	.00054	.00147	.00004	.00011	.00015	.00317	.035
%RSD	.57007	.34629	.84070	.44960	.79440	.40496	.30117
#1	.09582	.42417	.00453	.02499	.01885	.78141	11.537
#2	.09489	.42691	.00454	.02485	.01878	.78521	11.605
#3	.09487	.42649	.00460	.02477	.01857	.77892	11.560

Sample Name: S2 Acquired: 12/23/2024 11:00:29 Type: Cal
Method: NON EPA-6010-200.7(v2547) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3176.9	67542.	12146.	2259.6	4753.2
Stddev	9.1	350.	38.	16.9	21.7
%RSD	.28643	.51813	.31529	.74824	.45726
#1	3166.4	67356.	12152.	2246.5	4728.3
#2	3182.4	67323.	12104.	2253.6	4768.6
#3	3181.9	67945.	12180.	2278.7	4762.6

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: S3 Acquired: 12/23/2024 11:04:40 Type: Cal
Method: NON EPA-6010-200.7(v2547) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.12759	.19446	.60118	.18749	.40237	.37995	16.135	.55922
Stddev	.00036	.00131	.00071	.00037	.00112	.00298	.120	.00293
%RSD	.27917	.67335	.11871	.19776	.27953	.78490	.74236	.52353
#1	.12726	.19359	.60103	.18742	.40210	.37795	16.240	.55940
#2	.12797	.19382	.60196	.18716	.40140	.37853	16.005	.55620
#3	.12753	.19596	.60055	.18789	.40360	.38338	16.161	.56205

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2.8663	.76058	.10807	1.0909	.31071	.01289	.87218	.21969
Stddev	.0010	.00545	.00022	.0012	.00043	.00011	.00584	.00121
%RSD	.03364	.71668	.20498	.11203	.13992	.82840	.66915	.54950
#1	2.8670	.75808	.10809	1.0909	.31090	.01278	.86581	.21888
#2	2.8652	.75683	.10785	1.0897	.31021	.01299	.87346	.21911
#3	2.8668	.76683	.10829	1.0922	.31101	.01289	.87727	.22107

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	1.0081	.20930	.15593	.16657	3.9616	.07223	1.1880	1.7015
Stddev	.0009	.00006	.00096	.00140	.0150	.00055	.0062	.0019
%RSD	.09320	.02944	.61286	.83972	.37985	.75890	.52278	.11054
#1	1.0078	.20925	.15534	.16539	3.9622	.07170	1.1866	1.7021
#2	1.0092	.20937	.15703	.16620	3.9463	.07280	1.1826	1.6994
#3	1.0074	.20928	.15541	.16811	3.9764	.07218	1.1948	1.7031

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	.29239	1.3193	.01413	.08136	.05807	2.4066	35.529
Stddev	.00040	.0074	.00001	.00011	.00022	.0137	.320
%RSD	.13792	.56130	.10299	.14043	.38547	.57102	.89932
#1	.29254	1.3121	.01411	.08123	.05821	2.3911	35.306
#2	.29193	1.3189	.01414	.08141	.05781	2.4111	35.386
#3	.29269	1.3269	.01414	.08145	.05820	2.4174	35.895

Sample Name: S3 Acquired: 12/23/2024 11:04:40 Type: Cal
Method: NON EPA-6010-200.7(v2547) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3126.6	66408.	12038.	2194.0	4590.8
Stddev	3.5	114.	68.	4.6	3.5
%RSD	.11207	.17109	.56855	.20867	.07566
#1	3122.8	66375.	12031.	2198.2	4589.9
#2	3127.3	66534.	12110.	2194.7	4587.9
#3	3129.7	66314.	11974.	2189.1	4594.7

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: S4 Acquired: 12/23/2024 11:09:03 Type: Cal
Method: NON EPA-6010-200.7(v2547) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.24844	.35966	1.1467	.36268	.78204	.73988	31.215	1.0615
Stddev	.00033	.00367	.0001	.00084	.00055	.00263	.156	.0017
%RSD	.13442	1.0206	.00531	.23254	.06974	.35497	.49830	.15506
#1	.24807	.35683	1.1466	.36172	.78243	.73748	31.165	1.0616
#2	.24853	.35833	1.1467	.36303	.78142	.73946	31.091	1.0598
#3	.24872	.36380	1.1467	.36329	.78229	.74268	31.389	1.0631

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	5.5319	1.4634	.20316	2.1062	.59315	.02482	1.6758	.42688
Stddev	.0051	.0024	.00081	.0013	.00034	.00002	.0043	.00134
%RSD	.09285	.16061	.39943	.06122	.05786	.07938	.25659	.31479
#1	5.5272	1.4607	.20407	2.1050	.59283	.02480	1.6710	.42575
#2	5.5311	1.4646	.20290	2.1061	.59351	.02484	1.6771	.42653
#3	5.5374	1.4649	.20251	2.1075	.59310	.02482	1.6793	.42836

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	1.9372	.39849	.30413	.32417	7.5030	.13967	2.2745	3.2458
Stddev	.0017	.00093	.00123	.00139	.0287	.00020	.0078	.0058
%RSD	.08796	.23223	.40523	.42733	.38245	.14461	.34216	.18001
#1	1.9353	.39943	.30538	.32278	7.5327	.13990	2.2728	3.2395
#2	1.9376	.39758	.30408	.32416	7.4754	.13961	2.2676	3.2471
#3	1.9387	.39846	.30292	.32555	7.5010	.13951	2.2829	3.2510

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	.55852	2.5622	.02744	.16201	.11483	4.7274	68.755
Stddev	.00166	.0056	.00008	.00075	.00054	.0085	.365
%RSD	.29644	.22070	.30117	.46303	.47037	.18030	.53032
#1	.55712	2.5571	.02735	.16273	.11421	4.7230	68.787
#2	.55810	2.5611	.02747	.16207	.11509	4.7221	68.376
#3	.56035	2.5683	.02751	.16123	.11519	4.7373	69.103

Sample Name: S4 Acquired: 12/23/2024 11:09:03 Type: Cal
Method: NON EPA-6010-200.7(v2547) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3017.5	65477.	11824.	2131.0	4365.1
Stddev	4.3	160.	19.	11.8	3.0
%RSD	.14346	.24396	.15729	.55377	.06790
#1	3022.1	65301.	11817.	2117.4	4367.3
#2	3013.6	65517.	11845.	2138.5	4361.7
#3	3016.9	65613.	11809.	2137.1	4366.1

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: S5 Acquired: 12/23/2024 11:13:23 Type: Cal
Method: NON EPA-6010-200.7(v2547) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934	Be2348
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.53720	.78369	2.4327	.78491	1.6887	1.6532	68.121	2.2720
Stddev	.00183	.00885	.0060	.00269	.0073	.0024	.456	.0037
%RSD	.34064	1.1287	.24558	.34321	.42975	.14342	.67006	.16517
#1	.53527	.77476	2.4261	.78320	1.6847	1.6514	67.915	2.2678
#2	.53740	.79244	2.4341	.78351	1.6844	1.6559	67.805	2.2749
#3	.53892	.78387	2.4378	.78801	1.6971	1.6522	68.645	2.2733

Elem	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404	Mn2576	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	11.788	3.1817	.42007	4.5190	1.2498	.05233	3.6182	.93643
Stddev	.034	.0021	.00171	.0138	.0052	.00020	.0127	.00242
%RSD	.29127	.06717	.40789	.30513	.41593	.37523	.35093	.25817
#1	11.750	3.1797	.41812	4.5050	1.2456	.05231	3.6094	.93377
#2	11.795	3.1840	.42134	4.5196	1.2481	.05215	3.6125	.93850
#3	11.817	3.1813	.42074	4.5326	1.2556	.05254	3.6328	.93701

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	4.1291	.84191	.65814	.71370	15.741	.30426	4.8866	6.9178
Stddev	.0121	.00208	.00196	.00103	.133	.00118	.0061	.0224
%RSD	.29193	.24727	.29730	.14454	.84660	.38776	.12504	.32430
#1	4.1171	.83958	.65810	.71287	15.597	.30327	4.8832	6.8990
#2	4.1289	.84253	.65620	.71485	15.860	.30394	4.8936	6.9118
#3	4.1412	.84360	.66011	.71336	15.765	.30557	4.8829	6.9426

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	1.1871	5.6335	.06056	.35268	.25508	10.599	146.85
Stddev	.0040	.0083	.00047	.00174	.00099	.020	1.32
%RSD	.33818	.14755	.78296	.49219	.39000	.18503	.90086
#1	1.1825	5.6270	.06002	.35074	.25397	10.581	145.95
#2	1.1894	5.6306	.06074	.35409	.25589	10.597	148.37
#3	1.1894	5.6428	.06091	.35321	.25537	10.620	146.23

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: S5 Acquired: 12/23/2024 11:13:23 Type: Cal
Method: NON EPA-6010-200.7(v2547) Mode: IR Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2874.6	63771.	11302.	1994.8	4085.9
Stddev	10.4	101.	3.	11.5	14.8
%RSD	.36338	.15768	.02517	.57792	.36297
#1	2880.7	63880.	11299.	2005.2	4099.2
#2	2880.5	63753.	11302.	1982.4	4088.5
#3	2862.5	63682.	11304.	1996.8	4069.9

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: ICV01 Acquired: 12/23/2024 11:17:42 Type: Unk
Method: NON EPA-6010-200.7(v2547) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.046668	1.021422	1.016834	1.047319	1.011797	2.414150
Stddev	.002308	.022953	.000468	.002081	.003174	.011575
%RSD	.2205455	2.247117	.0460517	.1986561	.3137024	.4794633
#1	1.048661	1.037188	1.016528	1.048764	1.009935	2.402519
#2	1.044139	1.031989	1.017373	1.048259	1.015462	2.414263
#3	1.047204	.995089	1.016601	1.044934	1.009995	2.425668

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4835184	.4720804	.5075253	9.499332	.5315357	.5164000
Stddev	.0028857	.0030644	.0008369	.048754	.0010178	.0013768
%RSD	.5968197	.6491254	.1649034	.5132360	.1914825	.2666234
#1	.4817737	.4712220	.5071775	9.479676	.5304437	.5162263
#2	.4819322	.4695368	.5084800	9.463475	.5317053	.5178555
#3	.4868493	.4754825	.5069183	9.554846	.5324580	.5151183

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5296134	10.21711	.4898324	5.570607	.5187201	.2602798
Stddev	.0013706	.05097	.0051523	.038593	.0008988	.0006018
%RSD	.2587933	.4988225	1.051852	.6927881	.1732700	.2311968
#1	.5287258	10.16741	.4865601	5.560615	.5188082	.2597425
#2	.5311920	10.21468	.4871656	5.537994	.5195717	.2601669
#3	.5289225	10.26925	.4957715	5.613213	.5177806	.2609300

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	9.709721	.4696770	1.027989	9.947672	2.256397	2.527229
Stddev	.049463	.0024152	.001805	.020623	.006965	.006745
%RSD	.5094173	.5142243	.1756073	.2073161	.3086874	.2668885
#1	9.653609	.4696440	1.027654	9.925905	2.255571	2.528246
#2	9.747004	.4672786	1.026374	9.950190	2.249881	2.533408
#3	9.728550	.4721086	1.029938	9.966920	2.263738	2.520033

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: ICV01 Acquired: 12/23/2024 11:17:42 Type: Unk
Method: NON EPA-6010-200.7(v2547) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICV01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.419342	2.304835	F 2.024576	F .0069499	F -.005937	F -.003433
Stddev	.010759	.012921	.009790	.0007679	.001839	.000633
%RSD	.4447042	.5606186	.4835367	11.04825	30.97846	18.45089
#1	2.425313	2.298683	2.013574	.0076736	-.006516	-.002786
#2	2.425791	2.296140	2.032325	.0070317	-.003878	-.003461
#3	2.406921	2.319683	2.027831	.0061445	-.007418	-.004051

Elem	Sr4077
Units	ppm
Avg	F -.008191
Stddev	.000216
%RSD	2.632639
#1	-.007958
#2	-.008231
#3	-.008384

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3057.916	67298.69	12983.39	2152.849	4628.587
Stddev	6.037	48.30	65.58	9.194	7.993
%RSD	.1974277	.0717654	.5051225	.4270590	.1726928
#1	3062.503	67339.15	12968.83	2142.331	4634.589
#2	3051.076	67311.70	13055.03	2159.358	4619.513
#3	3060.169	67245.22	12926.31	2156.858	4631.658

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: LLICV01 Acquired: 12/23/2024 11:37:05 Type: Unk
Method: NON EPA-6010-200.7(v2547) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0205639	.0404542	.0119727	.0190454	.0499728	.0993134	.0903828
Stddev	.0012714	.0006038	.0005296	.0012259	.0004213	.0022352	.0002835
%RSD	6.182564	1.492515	4.423082	6.436486	.8429726	2.250635	.3137014
#1	.0191366	.0410760	.0113614	.0182828	.0500866	.0970720	.0902437
#2	.0215752	.0398702	.0122901	.0183940	.0503254	.1015423	.0901957
#3	.0209798	.0404166	.0122666	.0204595	.0495063	.0993258	.0907090

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0057530	.0058881	1.966286	.0098685	.0291907	.0217970	.1045191
Stddev	.0000153	.0000348	.014348	.0005111	.0001205	.0002812	.0037265
%RSD	.2666851	.5912471	.7296896	5.179145	.4127031	1.289950	3.565398
#1	.0057699	.0058525	1.951672	.0103214	.0291225	.0219753	.1018064
#2	.0057491	.0059221	1.966834	.0093144	.0291199	.0214728	.1087682
#3	.0057400	.0058896	1.980351	.0099695	.0293298	.0219427	.1029828

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0195371	2.023845	.0392713	.0107527	1.799902	.0379542	.0457385
Stddev	.0001982	.013425	.0000525	.0001220	.010983	.0005644	.0000710
%RSD	1.014609	.6633272	.1337508	1.134679	.6101945	1.487142	.1552139
#1	.0197319	2.016349	.0392829	.0106789	1.788334	.0378067	.0457776
#2	.0195437	2.039343	.0392140	.0108935	1.810187	.0374781	.0457813
#3	.0193356	2.015842	.0393172	.0106856	1.801186	.0385777	.0456565

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.871866	.0987485	.2073608	.0394649	.0380604	.3538846	.0170295
Stddev	.013683	.0002738	.0002401	.0003917	.0005467	.0039480	.0014810
%RSD	.7309588	.2772272	.1157964	.9925166	1.436363	1.115618	8.696529
#1	1.856172	.0990263	.2075519	.0397876	.0374814	.3505335	.0185086
#2	1.881287	.0984790	.2070913	.0390291	.0385677	.3528836	.0155466
#3	1.878140	.0987403	.2074392	.0395780	.0381319	.3582368	.0170332

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: LLICV01 Acquired: 12/23/2024 11:37:05 Type: Unk
Method: NON EPA-6010-200.7(v2547) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: LLICV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0187600	.0164457	.0193496
Stddev	.0028931	.0004952	.0000447
%RSD	15.42185	3.011120	.2307579
#1	.0218430	.0158742	.0193234
#2	.0161042	.0167143	.0193242
#3	.0183328	.0167486	.0194011

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3092.054	67116.53	12625.02	2136.993	4814.065
Stddev	7.134	189.58	9.25	7.260	8.162
%RSD	.2307085	.2824663	.0732795	.3397290	.1695520
#1	3083.940	67153.81	12622.23	2141.688	4804.925
#2	3094.885	66911.08	12635.35	2128.630	4820.628
#3	3097.338	67284.71	12617.49	2140.659	4816.642

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: ICB01 Acquired: 12/23/2024 11:44:41 Type: Unk
Method: NON EPA-6010-200.7(v2547) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0003202	-.000795	-.000209	-.001666	-.000224	-.001053	-.002207
Stddev	.0015936	.000407	.000255	.001328	.001120	.003023	.000216
%RSD	497.7556	51.13096	122.2057	79.70807	500.0400	287.1268	9.774188
#1	.0002669	-.000326	-.000487	-.003111	.000234	-.003009	-.002216
#2	.0019397	-.001018	.000015	-.000500	.000594	-.002578	-.002417
#3	-.001246	-.001041	-.000154	-.001386	-.001500	.002429	-.001986

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000027	-.000056	.0079168	-.000397	-.000048	-.000298	.0038212
Stddev	.0000686	.000064	.0108442	.000085	.000132	.000673	.0024161
%RSD	2576.588	113.6766	136.9781	21.43014	274.4614	226.0404	63.22714
#1	.0000419	-.000069	.0070291	-.000343	.000061	-.000959	.0011673
#2	-.000077	.000013	.0191775	-.000495	-.000195	-.000321	.0058931
#3	.000043	-.000113	-.002456	-.000352	-.000011	.000387	.0044033

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000230	.0002075	-.000083	.0004727	-.096496	.0004189	-.000173
Stddev	.000164	.0051334	.000181	.0001262	.007077	.0012357	.000519
%RSD	71.49055	2473.475	217.1609	26.70486	7.334095	295.0016	299.8260
#1	-.000064	-.003191	-.000219	.0005000	-.104209	-.000872	-.000697
#2	-.000393	-.002299	-.000152	.0003351	-.094977	.001590	.000340
#3	-.000233	.006113	.000122	.0005831	-.090301	.000539	-.000162

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.036041	.0015348	.0000745	-.000383	.0007762	.0037112	-.001408
Stddev	.033835	.0006117	.0001938	.000500	.0002854	.0081971	.003854
%RSD	93.87905	39.85665	260.3098	130.5566	36.76392	220.8725	273.7445
#1	-.075038	.0009281	-.000099	-.000959	.0009498	-.003028	-.001982
#2	-.014467	.0021514	.000283	-.000131	.0009319	.001325	.002701
#3	-.018620	.0015248	.000039	-.000059	.0004468	.012837	-.004942

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: ICB01 Acquired: 12/23/2024 11:44:41 Type: Unk
Method: NON EPA-6010-200.7(v2547) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0027053	-.003162	-.000041
Stddev	.0007047	.000488	.000007
%RSD	26.04677	15.41883	17.47534
#1	.0034499	-.003615	-.000032
#2	.0020489	-.003226	-.000045
#3	.0026171	-.002646	-.000045

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3052.540	66064.23	12170.90	2107.827	4807.062
Stddev	9.621	327.20	66.57	12.262	12.765
%RSD	.3151744	.4952800	.5469637	.5817377	.2655436
#1	3042.248	65718.41	12107.59	2094.441	4792.342
#2	3061.308	66105.35	12164.81	2110.525	4813.775
#3	3054.064	66368.92	12240.31	2118.516	4815.071

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: CRI01 Acquired: 12/23/2024 11:51:20 Type: Unk
Method: NON EPA-6010-200.7(v2547) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0192123	.0415006	.0110226	.0171051	.0496270	.1019219	.0920460
Stddev	.0023286	.0011483	.0009900	.0011704	.0004208	.0044927	.0003521
%RSD	12.12059	2.766850	8.981954	6.842425	.8479972	4.408022	.3825131
#1	.0189255	.0404095	.0117155	.0183324	.0491963	.0992444	.0923611
#2	.0216710	.0426986	.0114636	.0160014	.0500373	.0994126	.0921109
#3	.0170403	.0413937	.0098887	.0169816	.0496474	.1071087	.0916659

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0057082	.0058113	1.941611	.0097390	.0292253	.0219147	.1003351
Stddev	.0000385	.0000347	.015149	.0001419	.0000882	.0004445	.0032763
%RSD	.6748218	.5971743	.7802227	1.456555	.3017744	2.028269	3.265371
#1	.0057192	.0058252	1.934049	.0096424	.0291407	.0214090	.0966613
#2	.0056654	.0058369	1.931731	.0099018	.0293167	.0220913	.1013895
#3	.0057401	.0057718	1.959052	.0096726	.0292183	.0222438	.1029543

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0195547	2.035508	.0393227	.0109703	1.814825	.0383908	.0414315
Stddev	.0004731	.016388	.0002567	.0001903	.005196	.0006630	.0000776
%RSD	2.419387	.8050981	.6528406	1.734496	.2862975	1.726875	.1872231
#1	.0192656	2.040562	.0395174	.0108606	1.809676	.0379294	.0413649
#2	.0201007	2.017188	.0390318	.0108602	1.820066	.0380925	.0415166
#3	.0192979	2.048773	.0394189	.0111900	1.814734	.0391505	.0414129

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.909290	.0989243	.2094269	.0385780	.0383071	.3553096	.0185824
Stddev	.024281	.0004303	.0004717	.0004945	.0001438	.0008004	.0013676
%RSD	1.271723	.4350215	.2252387	1.281902	.3754884	.2252645	7.359491
#1	1.881344	.0993244	.2088902	.0391138	.0381491	.3556247	.0199486
#2	1.925220	.0984691	.2097758	.0381391	.0383419	.3559046	.0185850
#3	1.921307	.0989795	.2096147	.0384810	.0384304	.3543997	.0172135

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: CRI01 Acquired: 12/23/2024 11:51:20 Type: Unk
Method: NON EPA-6010-200.7(v2547) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CRI01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0210378	.0167787	.0195441
Stddev	.0014437	.0006020	.0000601
%RSD	6.862678	3.587970	.3077003
#1	.0210524	.0164110	.0195300
#2	.0224742	.0174734	.0196100
#3	.0195868	.0164516	.0194922

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3067.566	66331.96	12484.18	2110.190	4785.680
Stddev	1.859	124.18	29.46	5.933	6.306
%RSD	.0605888	.1872035	.2359673	.2811761	.1317781
#1	3068.842	66243.56	12460.92	2103.782	4781.251
#2	3068.424	66473.93	12517.30	2115.493	4792.900
#3	3065.434	66278.39	12474.31	2111.295	4782.889

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: ICSA01 Acquired: 12/23/2024 11:55:41 Type: Unk
Method: NON EPA-6010-200.7(v2547) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000829	.0101071	.0071931	-.012825	-.001860	244.3344
Stddev	.001881	.0001352	.0013130	.002319	.001164	1.8000
%RSD	226.7842	1.337720	18.25282	18.08192	62.58749	.7366818
#1	.000724	.0101712	.0067353	-.011040	-.001922	245.6497
#2	-.002920	.0101983	.0086737	-.015446	-.000666	245.0704
#3	-.000292	.0099518	.0061704	-.011988	-.002992	242.2830

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0027075	.0012170	.0058282	227.1629	.0580268	.0018350
Stddev	.0003017	.0000682	.0000695	.5630	.0004388	.0002427
%RSD	11.14158	5.605203	1.192965	.2478485	.7562487	13.22782
#1	.0028557	.0012899	.0059027	227.5777	.0575750	.0015548
#2	.0023604	.0011547	.0057650	227.3891	.0584514	.0019816
#3	.0029063	.0012064	.0058169	226.5220	.0580539	.0019686

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0160827	104.2086	.0047863	247.3142	.0029810	.0032805
Stddev	.0005962	.2363	.0003727	.7838	.0000889	.0002124
%RSD	3.707004	.2267303	7.787542	.3169183	2.983693	6.474558
#1	.0164182	103.9507	.0044087	247.5871	.0029834	.0032097
#2	.0164355	104.4146	.0051540	247.9251	.0030687	.0035193
#3	.0153943	104.2606	.0047962	246.4305	.0028908	.0031126

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0197308	.0060939	.0078167	.0305652	.0374817	-.000485
Stddev	.0184091	.0006428	.0002918	.0348504	.0014981	.000504
%RSD	93.30123	10.54841	3.732838	114.0199	3.996890	103.9976
#1	-.000215	.0053638	.0075430	-.009506	.0361823	-.000570
#2	.036069	.0063428	.0077836	.047392	.0371425	.000056
#3	.023338	.0065750	.0081237	.053809	.0391203	-.000941

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: ICSA01 Acquired: 12/23/2024 11:55:41 Type: Unk
Method: NON EPA-6010-200.7(v2547) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSA01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002926	-.002003	.0103916	.0020179	-.017272	F -.039579
Stddev	.000673	.000287	.0069892	.0021610	.002971	.000490
%RSD	22.99292	14.33778	67.25844	107.0891	17.20024	1.236956
#1	-.002445	-.001941	.0179962	-.000152	-.016856	-.039026
#2	-.002637	-.001752	.0042489	.002037	-.020429	-.039958
#3	-.003695	-.002317	.0089297	.004169	-.014531	-.039752

Elem	Sr4077
Units	ppm
Avg	-.008088
Stddev	.000550
%RSD	6.794554
#1	-.007455
#2	-.008370
#3	-.008440

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2661.500	57300.64	12032.26	1838.757	3738.012
Stddev	7.359	195.75	65.78	6.873	11.778
%RSD	.2764873	.3416110	.5467087	.3738077	.3150865
#1	2654.890	57482.15	11970.39	1845.556	3730.634
#2	2669.429	57093.24	12025.04	1831.811	3751.595
#3	2660.181	57326.52	12101.36	1838.902	3731.807

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: ICSAB01 Acquired: 12/23/2024 12:06:26 Type: Unk
Method: NON EPA-6010-200.7(v2548) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1157207	.1118743	.0553617	.0374069	.6414283	240.5110
Stddev	.0027890	.0012991	.0027907	.0031781	.0043473	.8427
%RSD	2.410102	1.161194	5.040832	8.496061	.6777515	.3503975
#1	.1162099	.1112937	.0577339	.0355769	.6416217	240.0691
#2	.1127195	.1133624	.0522868	.0355671	.6456756	239.9810
#3	.1182328	.1109668	.0560643	.0410766	.6369875	241.4828

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4857193	.4774254	1.044243	225.1681	.5805274	.5257452
Stddev	.0026884	.0017651	.001400	.9829	.0021622	.0004767
%RSD	.5534825	.3697126	.1340513	.4365361	.3724475	.0906650
#1	.4827889	.4790367	1.044324	224.6111	.5830148	.5260203
#2	.4862974	.4755389	1.042804	224.5902	.5790977	.5251948
#3	.4880716	.4777007	1.045601	226.3031	.5794696	.5260205

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5652942	101.8328	.4780335	243.9122	1.037116	.2027092
Stddev	.0012074	.2336	.0020492	.9363	.001097	.0004387
%RSD	.2135797	.2293626	.4286677	.3838631	.1057865	.2164340
#1	.5639333	101.6207	.4769908	243.4514	1.037356	.2027784
#2	.5657125	101.7945	.4767153	243.2957	1.035919	.2022400
#3	.5662368	102.0831	.4803943	244.9896	1.038074	.2031093

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0098029	.4779666	1.067202	-.025584	.8843854	1.008586
Stddev	.0319858	.0014261	.003036	.032601	.0049037	.002688
%RSD	326.2901	.2983796	.2845111	127.4262	.5544756	.2665252
#1	-.022636	.4763247	1.069671	-.060658	.8883241	1.005530
#2	.010729	.4788980	1.063812	-.019890	.8788931	1.009646
#3	.041316	.4786770	1.068124	.003794	.8859391	1.010583

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: ICSAB01 Acquired: 12/23/2024 12:06:26 Type: Unk
Method: NON EPA-6010-200.7(v2548) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSAB01 Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9847902	.9040460	.8629507	F .0102523	F -.022808	F -.040035
Stddev	.0023144	.0041848	.0104799	.0026269	.011908	.000379
%RSD	.2350093	.4628931	1.214424	25.62273	52.20868	.9470389
#1	.9851416	.9002277	.8513856	.0119527	-.013572	-.039938
#2	.9823202	.9033905	.8656488	.0115776	-.018604	-.039714
#3	.9869087	.9085199	.8718177	.0072267	-.036247	-.040453

Elem	Sr4077
Units	ppm
Avg	F -.005314
Stddev	.000196
%RSD	3.693417
#1	-.005534
#2	-.005155
#3	-.005254

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2631.497	57965.66	12023.79	1846.636	3712.030
Stddev	2.160	206.33	51.20	9.240	1.305
%RSD	.0820953	.3559502	.4257978	.5003825	.0351432
#1	2632.808	57736.37	11976.39	1836.530	3710.576
#2	2629.004	58136.33	12078.09	1854.654	3713.097
#3	2632.679	58024.29	12016.89	1848.724	3712.418

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: ICSADLX20 Acquired: 12/23/2024 12:10:38 Type: Unk
Method: NON EPA-6010-200.7(v2548) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSADLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001007	.0019234	.0009743	-.000654	-.001034	12.22618	-.002381
Stddev	.002736	.0003325	.0011155	.001364	.000375	.08404	.000500
%RSD	271.7071	17.28506	114.4961	208.5703	36.22367	.6873504	21.01771
#1	-.001049	.0015696	.0022608	-.000144	-.000958	12.32077	-.001927
#2	.001750	.0022294	.0003872	.000381	-.001441	12.19763	-.002918
#3	-.003722	.0019711	.0002750	-.002200	-.000703	12.16014	-.002299

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002245	.0001679	11.92693	.0026049	-.000084	.0035903	5.130327
Stddev	.0000428	.0000634	.11376	.0001582	.000144	.0003243	.043131
%RSD	19.07372	37.74076	.9537821	6.072397	170.3070	9.033955	.8407106
#1	.0002735	.0002406	12.05723	.0026808	-.000139	.0039527	5.176387
#2	.0001943	.0001246	11.87611	.0027109	.000079	.0033272	5.123703
#3	.0002056	.0001385	11.84744	.0024231	-.000192	.0034909	5.090891

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0005965	12.26405	.0000271	.0006168	-.040794	.0005107	.0005092
Stddev	.0002847	.06695	.0001600	.0001795	.010690	.0006217	.0001045
%RSD	47.72694	.5459230	590.1622	29.10222	26.20389	121.7411	20.51870
#1	.0008866	12.33752	.0001552	.0008043	-.050755	-.000203	.0004834
#2	.0005853	12.24814	-.000152	.0005995	-.042126	.000932	.0006241
#3	.0003175	12.20648	.000078	.0004466	-.029501	.000803	.0004200

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.052623	.0026407	.0003027	-.001174	.0016734	.0011441	.0039586
Stddev	.016565	.0003323	.0002480	.000493	.0004287	.0085809	.0014526
%RSD	31.47850	12.58223	81.92820	42.01772	25.61674	750.0355	36.69476
#1	-.068841	.0029281	.0000177	-.000876	.0021353	.0105717	.0044617
#2	-.053298	.0027170	.0004694	-.001743	.0012884	-.000929	.0023214
#3	-.035731	.0022769	.0004209	-.000902	.0015964	-.006210	.0050928

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: ICSADLX20 Acquired: 12/23/2024 12:10:38 Type: Unk
Method: NON EPA-6010-200.7(v2548) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSADLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0017606	-.004922	-.000154
Stddev	.0016825	.000379	.000039
%RSD	95.55976	7.699633	25.38665
#1	.0024391	-.004935	-.000146
#2	.0029979	-.005293	-.000196
#3	-.000155	-.004536	-.000119

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2983.489	64989.44	12445.77	2078.446	4550.543
Stddev	2.890	160.42	25.23	14.876	2.562
%RSD	.0968510	.2468342	.2026871	.7157355	.0562983
#1	2980.609	64805.60	12418.89	2062.178	4549.820
#2	2986.388	65101.00	12468.92	2091.357	4553.389
#3	2983.470	65061.73	12449.52	2081.801	4548.421

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: ICSABDLX20 Acquired: 12/23/2024 12:14:56 Type: Unk
Method: NON EPA-6010-200.7(v2548) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSABDLX20 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0052089	.0047196	.0025150	.0021216	.0309406	11.97694	.0216502
Stddev	.0034224	.0004115	.0010199	.0003010	.0005970	.01374	.0004706
%RSD	65.70285	8.718739	40.55251	14.18843	1.929378	.1147241	2.173510
#1	.0091598	.0051817	.0017871	.0020496	.0302672	11.97846	.0212755
#2	.0031593	.0043927	.0036807	.0024521	.0314048	11.96250	.0214968
#3	.0033076	.0045845	.0020772	.0018631	.0311498	11.98985	.0221783

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0248215	.0510401	11.68630	.0299103	.0253375	.0293572	5.080377
Stddev	.0000653	.0001626	.04680	.0000245	.0003376	.0001508	.012053
%RSD	.2629248	.3185502	.4004887	.0819476	1.332496	.5137627	.2372558
#1	.0247689	.0509164	11.66938	.0299355	.0254177	.0294032	5.075856
#2	.0248011	.0509796	11.65031	.0299090	.0249670	.0294797	5.071239
#3	.0248946	.0512242	11.73921	.0298865	.0256278	.0291888	5.094038

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0249707	12.02362	.0514725	.0103400	-.046154	.0242246	.0528859
Stddev	.0000919	.10454	.0003249	.0001843	.019099	.0013331	.0005429
%RSD	.3681071	.8694386	.6312123	1.782265	41.38124	5.502976	1.026468
#1	.0248699	11.92319	.0514083	.0101306	-.067807	.0248488	.0534889
#2	.0249920	12.01583	.0511845	.0104777	-.031705	.0251310	.0524362
#3	.0250500	12.13183	.0518247	.0104115	-.038948	.0226939	.0527325

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.052907	.0463593	.0512117	.0468290	.0465745	.0453392	-.001689
Stddev	.035160	.0002549	.0004409	.0004896	.0001667	.0027198	.001919
%RSD	66.45595	.5498701	.8609543	1.045491	.3580324	5.998897	113.6245
#1	-.093307	.0462524	.0507702	.0464808	.0467391	.0430970	-.001471
#2	-.036174	.0466503	.0512130	.0473888	.0465788	.0483648	.000112
#3	-.029238	.0461753	.0516520	.0466172	.0464057	.0445559	-.003708

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: ICSABDLX20 Acquired: 12/23/2024 12:14:56 Type: Unk
Method: NON EPA-6010-200.7(v2548) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: ICSABDLX20 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0008776	-.005700	-.000196
Stddev	.0022366	.000866	.000032
%RSD	254.8635	15.19917	16.08704
#1	.0034233	-.005484	-.000188
#2	-.000772	-.004962	-.000231
#3	-.000019	-.006654	-.000169

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3019.706	64933.29	12608.04	2056.079	4630.813
Stddev	5.273	25.57	12.47	2.921	10.103
%RSD	.1746329	.0393810	.0988683	.1420539	.2181599
#1	3017.087	64925.97	12615.99	2053.705	4630.033
#2	3025.776	64912.18	12614.47	2055.191	4641.283
#3	3016.255	64961.73	12593.67	2059.341	4621.123

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: CCV01 Acquired: 12/23/2024 12:31:08 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.108580	5.152270	4.885046	5.188829	5.172448	9.866024	9.705877
Stddev	.015656	.046251	.009066	.023736	.019833	.040803	.055879
%RSD	.3064719	.8976826	.1855948	.4574382	.3834368	.4135750	.5757206
#1	5.113380	5.118288	4.895294	5.197285	5.180986	9.827949	9.649036
#2	5.091086	5.133580	4.878069	5.162023	5.149776	9.861028	9.707856
#3	5.121274	5.204941	4.881775	5.207178	5.186582	9.909095	9.760740

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2324022	2.446211	23.81704	.9975233	2.455973	1.278796	5.083006
Stddev	.0012798	.004866	.02606	.0038166	.004340	.003791	.032931
%RSD	.5506864	.1989351	.1094262	.3826104	.1767282	.2964396	.6478610
#1	.2338209	2.450131	23.81910	.9984277	2.460148	1.281410	5.044987
#2	.2320512	2.440765	23.79001	1.000806	2.451484	1.274448	5.102606
#3	.2313346	2.447738	23.84202	.993336	2.456285	1.280530	5.101425

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.380121	23.57530	2.466052	1.251670	25.21130	2.438978	2.453363
Stddev	.011411	.03799	.003653	.002721	.08834	.004332	.015676
%RSD	.4794225	.1611485	.1481515	.2174259	.3504098	.1776321	.6389471
#1	2.377785	23.56118	2.469268	1.250826	25.11777	2.434649	2.451005
#2	2.370058	23.54639	2.462080	1.254713	25.29333	2.438970	2.470083
#3	2.392518	23.61833	2.466810	1.249470	25.22280	2.443314	2.438999

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	25.69538	4.675824	5.152649	4.934064	4.839172	5.163217	4.909322
Stddev	.19379	.017547	.020465	.008326	.022510	.060560	.015511
%RSD	.7542007	.3752766	.3971808	.1687397	.4651536	1.172908	.3159578
#1	25.47432	4.696030	5.159545	4.934614	4.820631	5.093769	4.905983
#2	25.77578	4.667014	5.129626	4.925477	4.832668	5.190858	4.895752
#3	25.83603	4.664427	5.168775	4.942101	4.864217	5.205025	4.926231

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: CCV01 Acquired: 12/23/2024 12:31:08 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.906970	4.898821	4.939025
Stddev	.006169	.030179	.015533
%RSD	.1257119	.6160485	.3144946
#1	4.906194	4.868041	4.949070
#2	4.901226	4.900061	4.921134
#3	4.913490	4.928360	4.946871

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2830.981	62804.50	12020.71	1940.411	4189.042
Stddev	8.828	198.52	48.22	8.800	7.862
%RSD	.3118482	.3160977	.4011257	.4535057	.1876845
#1	2824.274	62774.34	11965.98	1943.284	4180.903
#2	2840.983	62622.77	12039.19	1930.534	4196.594
#3	2827.686	63016.37	12056.95	1947.416	4189.630

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: CCB01 Acquired: 12/23/2024 12:35:20 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000721	-.000118	-.000059	.0007783	-.000887	.0037143	-.004380
Stddev	.001285	.001144	.000582	.0006205	.000464	.0031184	.000488
%RSD	178.1847	970.5965	990.2731	79.72827	52.30732	83.95463	11.15107
#1	-.000686	-.001224	-.000178	.0014026	-.001153	.0069233	-.003830
#2	.000546	-.000191	.000574	.0007705	-.001155	.0006952	-.004763
#3	-.002024	.001061	-.000572	.0001617	-.000351	.0035246	-.004549

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000540	-.000017	.0070791	-.000185	-.000060	.0006226	.0024782
Stddev	.0000297	.000071	.0008470	.000182	.000237	.0002248	.0028528
%RSD	55.04755	412.1703	11.96516	98.37277	398.6069	36.11509	115.1182
#1	.0000379	.000061	.0078451	-.000032	-.000330	.0003734	.0051557
#2	.0000358	-.000037	.0061694	-.000385	.000038	.0008102	.0028012
#3	.0000883	-.000075	.0072228	-.000136	.000113	.0006842	-.000522

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000532	-.002496	-.000038	.0007101	-.070336	.0002004	-.000118
Stddev	.0001912	.001774	.000185	.0001513	.014701	.0004082	.000289
%RSD	359.5688	71.08621	487.1908	21.30514	20.90105	203.6694	244.2703
#1	.0002739	-.000789	.000001	.0005967	-.087018	-.000015	.000164
#2	-.000055	-.004330	-.000239	.0006517	-.064713	-.000055	-.000105
#3	-.000059	-.002368	.000125	.0008819	-.059276	.000671	-.000414

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.031479	.0062391	.0002550	-.000327	.0008684	.0012640	.0016780
Stddev	.005127	.0005291	.0003396	.000437	.0002932	.0051642	.0002636
%RSD	16.28749	8.479939	133.1778	133.7194	33.76314	408.5501	15.70747
#1	-.026047	.0056420	.0002980	-.000732	.0008191	.0038032	.0017790
#2	-.036233	.0064253	.0005710	-.000385	.0011830	.0046671	.0018761
#3	-.032156	.0066498	-.000104	.000136	.0006029	-.004678	.0013788

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: CCB01 Acquired: 12/23/2024 12:35:20 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB01 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000899	-.003228	.0001540
Stddev	.002443	.000653	.0000485
%RSD	271.6778	20.22946	31.47085
#1	-.001141	-.003552	.0002045
#2	-.003213	-.002476	.0001497
#3	.001656	-.003655	.0001078

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2971.934	66361.46	12904.74	2060.116	4748.659
Stddev	7.529	130.69	36.34	4.873	6.346
%RSD	.2533397	.1969299	.2815878	.2365355	.1336320
#1	2965.673	66356.75	12893.33	2058.648	4741.352
#2	2969.842	66494.44	12875.47	2065.554	4751.839
#3	2980.288	66233.19	12945.41	2056.145	4752.786

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: PB165789BL Acquired: 12/23/2024 12:51:12 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000747	-.000580	-.000670	.0012354	-.001262	.0006721	-.006840
Stddev	.000514	.001276	.001052	.0010099	.000916	.0018438	.000286
%RSD	68.82692	219.8957	157.0637	81.74630	72.55360	274.3508	4.188086
#1	-.000870	-.001785	.000502	.0013805	-.000495	-.001402	-.006676
#2	-.000182	.000757	-.000979	.0021648	-.001016	.002124	-.006673
#3	-.001188	-.000712	-.001532	.0001608	-.002277	.001295	-.007171

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000146	-.000037	.0047360	-.000244	.0000867	-.000242	.0028928
Stddev	.0000096	.000115	.0038326	.000623	.0000216	.000429	.0004567
%RSD	65.49722	311.0471	80.92599	254.7261	24.95453	176.9708	15.78708
#1	.0000246	-.000001	.0034210	-.000764	.0001047	-.000353	.0025389
#2	.0000139	-.000165	.0090530	.000446	.0000928	-.000605	.0034084
#3	.0000055	.000056	.0017339	-.000415	.0000627	.000231	.0027312

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000265	-.010433	.0001069	.0009493	-.050194	-.000714	-.000306
Stddev	.000109	.003891	.0003319	.0002130	.033666	.000755	.000278
%RSD	41.18919	37.29664	310.4462	22.43639	67.07163	105.7291	90.77209
#1	-.000281	-.007400	-.000156	.0008681	-.088411	.000022	-.000473
#2	-.000365	-.014821	-.000004	.0007888	-.037250	-.000678	.000015
#3	-.000149	-.009079	.000480	.0011909	-.024921	-.001486	-.000460

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.056305	.0007310	.0000208	-.000170	.0003236	-.000483	.0009493
Stddev	.015473	.0006408	.0002252	.000221	.0002790	.001016	.0018527
%RSD	27.48044	87.65889	1081.322	129.9395	86.22102	210.2354	195.1588
#1	-.073555	.0014605	-.000212	.000077	.0002334	-.000323	-.001132
#2	-.051712	.0002594	.000237	-.000238	.0001008	.000443	.001561
#3	-.043650	.0004730	.000038	-.000350	.0006366	-.001570	.002419

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: PB165789BL Acquired: 12/23/2024 12:51:12 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.001283	-.001463	-.000059
Stddev	.002426	.000087	.000015
%RSD	189.0644	5.975445	25.59486
#1	-.002955	-.001409	-.000042
#2	-.002395	-.001416	-.000066
#3	.001500	-.001564	-.000071

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2914.587	65994.12	12905.68	2032.729	4697.335
Stddev	11.428	43.49	42.14	9.207	21.305
%RSD	.3921093	.0658933	.3265235	.4529371	.4535649
#1	2908.958	65970.73	12865.21	2030.694	4687.827
#2	2907.065	65967.34	12949.31	2024.711	4682.439
#3	2927.738	66044.30	12902.52	2042.784	4721.739

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: PB165789BS Acquired: 12/23/2024 12:55:34 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8399444	2.036704	.9797185	2.086650	.8306710	1.925683
Stddev	.0036136	.029566	.0020281	.015348	.0040289	.003997
%RSD	.4302171	1.451640	.2070123	.7355129	.4850183	.2075572
#1	.8373918	2.004118	.9805748	2.070629	.8260713	1.923453
#2	.8383622	2.061814	.9774027	2.088099	.8323681	1.923299
#3	.8440792	2.044182	.9811781	2.101222	.8335738	1.930298

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1858813	.1812406	.1935327	.9719478	.4016049	.1981592
Stddev	.0009791	.0005836	.0006211	.0080698	.0008229	.0007242
%RSD	.5267386	.3220063	.3209156	.8302758	.2048966	.3654524
#1	.1849905	.1808580	.1934702	.9627270	.4025110	.1980098
#2	.1857238	.1809513	.1929452	.9753939	.4009042	.1975213
#3	.1869296	.1819123	.1941826	.9777225	.4013996	.1989464

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3241477	3.085072	.1901214	1.809626	.4992387	.0764819
Stddev	.0012221	.019174	.0011148	.013734	.0018427	.0001696
%RSD	.3770300	.6215047	.5863844	.7589621	.3691007	.2217824
#1	.3229639	3.063017	.1891378	1.796069	.4982594	.0763977
#2	.3240744	3.097782	.1898940	1.809277	.4980924	.0766771
#3	.3254048	3.094417	.1913324	1.823531	.5013643	.0763708

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.896820	.2851022	.2006264	10.14960	.2714266	.4243108
Stddev	.007136	.0017706	.0013060	.03220	.0010808	.0020592
%RSD	.2463257	.6210294	.6509743	.3172956	.3981807	.4853047
#1	2.889136	.2830954	.2020866	10.12687	.2715323	.4223275
#2	2.898087	.2857671	.1995699	10.18645	.2702969	.4241664
#3	2.903237	.2864440	.2002227	10.13548	.2724507	.4264383

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: PB165789BS Acquired: 12/23/2024 12:55:34 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6844205	.1911739	.7901446	5.542041	F -.008871	.1990090
Stddev	.0027067	.0004528	.0120873	.016596	.002899	.0014056
%RSD	.3954721	.2368661	1.529754	.2994534	32.68111	.7063205
#1	.6817397	.1908703	.7842886	5.524489	-.011005	.1975288
#2	.6843693	.1909571	.7821007	5.544156	-.010038	.1991722
#3	.6871524	.1916944	.8040445	5.557478	-.005570	.2003258

Elem	Sr4077
Units	ppm
Avg	.1962233
Stddev	.0007281
%RSD	.3710366
#1	.1954659
#2	.1962859
#3	.1969180

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2890.056	65593.70	12783.99	2027.221	4508.556
Stddev	8.461	130.18	38.80	9.870	12.123
%RSD	.2927568	.1984657	.3034948	.4868543	.2688794
#1	2898.064	65443.90	12794.88	2017.087	4513.699
#2	2890.899	65657.75	12816.18	2027.774	4517.259
#3	2881.205	65679.44	12740.91	2036.803	4494.709

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: PB165659BL Acquired: 12/23/2024 12:59:36 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.001229	.0009692	.0009009	-.001309	.0000155	.0060498	-.006872
Stddev	.001011	.0014011	.0011531	.000269	.0011379	.0008211	.000396
%RSD	82.22486	144.5548	127.9955	20.55937	7353.816	13.57315	5.760992
#1	-.000275	-.000557	.0010730	-.001618	.0004553	.0069448	-.007236
#2	-.001124	.001266	.0019583	-.001132	.0008678	.0058736	-.006929
#3	-.002289	.002198	-.000329	-.001176	-.001277	.0053311	-.006451

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001890	-.000005	.0004797	.0003568	.0000475	.0002238	.0021492
Stddev	.0000488	.000060	.0045543	.0001443	.0002200	.0003852	.0019134
%RSD	25.83152	1115.651	949.4062	40.44288	462.6466	172.0901	89.02644
#1	.0001741	.000060	-.003772	.0002347	.0001990	.0006679	.0042777
#2	.0002436	-.000058	.005286	.0005160	.0001484	-.000019	.0005719
#3	.0001495	-.000018	-.000075	.0003196	-.000205	.000023	.0015981

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000452	.0082245	.0001916	.0008354	-.061927	.0000575	-.000097
Stddev	.0001740	.0088180	.0000321	.0001057	.018313	.0004904	.000147
%RSD	384.8512	107.2166	16.77146	12.64881	29.57235	852.5870	152.3478
#1	-.000152	.0094124	.0002205	.0007134	-.078531	.0004676	-.000178
#2	.000108	.0163883	.0001974	.0008929	-.064966	-.000486	-.000185
#3	.000179	-.001127	.0001570	.0008998	-.042285	.000191	.000073

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.046928	.0009570	.0000995	.0002096	.0009271	.0005349	.0034648
Stddev	.021154	.0004686	.0001188	.0003127	.0003433	.0085397	.0028251
%RSD	45.07827	48.96391	119.3925	149.1493	37.02499	1596.367	81.53668
#1	-.028213	.0006259	.0002359	-.000121	.0011330	-.006761	.0057816
#2	-.069880	.0014931	.0000445	.000500	.0005309	.009928	.0042952
#3	-.042690	.0007519	.0000182	.000250	.0011175	-.001562	.0003176

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: PB165659BL Acquired: 12/23/2024 12:59:36 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000751	-.001835	.0001695
Stddev	.002190	.000259	.0000287
%RSD	291.5336	14.10279	16.95902
#1	-.002762	-.001548	.0002022
#2	-.001074	-.002051	.0001579
#3	.001583	-.001907	.0001483

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2907.109	65928.03	12944.15	2033.127	4662.930
Stddev	6.423	58.86	15.37	11.411	5.452
%RSD	.2209452	.0892744	.1187219	.5612565	.1169219
#1	2902.307	65895.80	12930.80	2020.136	4656.812
#2	2904.614	65995.96	12960.95	2041.527	4664.704
#3	2914.405	65892.32	12940.71	2037.720	4667.274

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: PB165659BS Acquired: 12/23/2024 13:03:59 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8241285	1.984155	.9631900	2.047062	.8216180	1.926172
Stddev	.0007894	.027407	.0009044	.005626	.0018020	.004540
%RSD	.0957853	1.381291	.0938990	.2748454	.2193281	.2356880
#1	.8235685	2.007160	.9622161	2.053477	.8225267	1.927172
#2	.8250314	1.953832	.9640036	2.044746	.8227849	1.921216
#3	.8237856	1.991474	.9633502	2.042964	.8195426	1.930129

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1855155	.1813693	.1897961	.9880940	.4017942	.1950889
Stddev	.0005734	.0003860	.0002642	.0137579	.0010620	.0003414
%RSD	.3090737	.2128161	.1392196	1.392370	.2643215	.1750173
#1	.1848534	.1809574	.1894941	.9803006	.4028651	.1948509
#2	.1858480	.1817228	.1899848	1.003979	.4017762	.1954801
#3	.1858451	.1814276	.1899094	.980002	.4007413	.1949357

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3206672	3.057960	.1891684	1.810030	.4906676	.0760957
Stddev	.0007824	.008908	.0009989	.010362	.0005042	.0003745
%RSD	.2439756	.2912978	.5280738	.5724909	.1027498	.4921373
#1	.3214181	3.061887	.1883321	1.800791	.4906652	.0757320
#2	.3198568	3.064230	.1902745	1.808064	.4911729	.0760750
#3	.3207268	3.047764	.1888984	1.821234	.4901646	.0764801

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.869129	.2858521	.2020521	10.12348	.2709167	.4231200
Stddev	.011078	.0010435	.0004784	.02717	.0010701	.0004587
%RSD	.3861197	.3650298	.2367685	.2683680	.3949782	.1084147
#1	2.865343	.2856865	.2016281	10.12691	.2699494	.4229814
#2	2.860440	.2869684	.2019576	10.09476	.2707346	.4227465
#3	2.881604	.2849013	.2025707	10.14877	.2720662	.4236320

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: PB165659BS Acquired: 12/23/2024 13:03:59 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6722687	.1904566	.7817860	5.374756	F -.008876	.1997838
Stddev	.0006415	.0005811	.0078090	.011059	.002190	.0003886
%RSD	.0954266	.3051253	.9988672	.2057667	24.66786	.1945044
#1	.6722380	.1897862	.7854883	5.372806	-.007953	.1999035
#2	.6716430	.1907660	.7870552	5.364801	-.011376	.1993494
#3	.6729250	.1908175	.7728144	5.386661	-.007300	.2000984

Elem	Sr4077
Units	ppm
Avg	.1960558
Stddev	.0004185
%RSD	.2134561
#1	.1955777
#2	.1962341
#3	.1963556

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2917.010	65105.00	12667.86	1993.118	4592.053
Stddev	.225	212.86	39.23	3.389	3.579
%RSD	.0077262	.3269506	.3096571	.1700415	.0779371
#1	2917.061	64928.09	12648.40	1991.673	4596.180
#2	2916.763	65045.68	12642.16	1990.690	4590.175
#3	2917.205	65341.23	12713.01	1996.990	4589.803

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5330-04 Acquired: 12/23/2024 13:08:02 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.009346	-.008065	.0041077	.0040289	-.000615	.2981283	.2381641
Stddev	.002205	.002070	.0005759	.0024346	.001500	.0016829	.0015037
%RSD	23.59632	25.66292	14.01890	60.42950	243.9977	.5645041	.6313632
#1	-.011888	-.005698	.0047607	.0012536	.000651	.2966722	.2387609
#2	-.007947	-.008962	.0038901	.0058048	-.000224	.2999709	.2392778
#3	-.008203	-.009535	.0036724	.0050283	-.002272	.2977418	.2364536

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000095	-.000140	7.382579	.0039292	.0004097	.0212737	.2495018
Stddev	.000074	.000096	.015992	.0001342	.0001894	.0004865	.0057406
%RSD	77.42136	68.43621	.2166187	3.415612	46.21901	2.286935	2.300824
#1	-.000045	-.000245	7.365810	.0038123	.0004618	.0207249	.2430037
#2	-.000060	-.000057	7.384266	.0040757	.0005676	.0214439	.2516170
#3	-.000179	-.000119	7.397660	.0038996	.0001997	.0216522	.2538846

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0790785	.7434850	.0016186	.0008176	399.8020	.0015275	.1207538
Stddev	.0004881	.0154953	.0000694	.0000333	4.0467	.0007294	.0002541
%RSD	.6172262	2.084145	4.288445	4.067453	1.012170	47.74894	.2104606
#1	.0796145	.7571438	.0016631	.0007865	398.0160	.0023665	.1209972
#2	.0789614	.7266465	.0015386	.0008527	396.9555	.0011718	.1204902
#3	.0786596	.7466648	.0016542	.0008137	404.4344	.0010443	.1207739

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4502560	.0608757	.0005967	.0012074	.0052517	.7225802	.0237991
Stddev	.0131244	.0004381	.0000276	.0004749	.0007700	.0027139	.0008865
%RSD	2.914886	.7196970	4.628335	39.33149	14.66274	.3755865	3.724881
#1	.4351183	.0608007	.0005688	.0014558	.0061386	.7195302	.0234034
#2	.4584489	.0613465	.0006240	.0006598	.0047530	.7234819	.0231794
#3	.4572007	.0604799	.0005972	.0015064	.0048634	.7247285	.0248145

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5330-04 Acquired: 12/23/2024 13:08:02 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.7323923	-.006302	.0493989
Stddev	.0024215	.000772	.0001991
%RSD	.3306276	12.25432	.4029842
#1	.7306779	-.007194	.0496097
#2	.7351624	-.005866	.0493727
#3	.7313365	-.005847	.0492142

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2594.608	58611.03	12751.57	1791.368	3905.306
Stddev	3.190	136.89	36.08	6.465	5.714
%RSD	.1229413	.2335579	.2829169	.3609132	.1463087
#1	2598.251	58637.97	12710.25	1791.747	3909.908
#2	2592.318	58732.45	12767.66	1797.635	3907.100
#3	2593.254	58462.67	12776.80	1784.721	3898.911

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5337-03 Acquired: 12/23/2024 13:12:31 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.010881	-.008450	-.000125	.0030891	.0008483	-.045100	.0852908
Stddev	.001944	.001225	.000826	.0034132	.0003753	.008991	.0008168
%RSD	17.86613	14.50029	658.4563	110.4920	44.23744	19.93533	.9576860
#1	-.008921	-.009262	-.000728	.0046873	.0012130	-.035992	.0856590
#2	-.010912	-.009047	-.000465	.0054101	.0004633	-.053969	.0858586
#3	-.012809	-.007041	.000816	-.000830	.0008685	-.045338	.0843547

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000118	-.000111	150.7720	.0004940	-.000475	.0018632	.0113103
Stddev	.000009	.000041	.1404	.0000710	.000068	.0012361	.0028231
%RSD	7.902773	37.30522	.0931461	14.36430	14.40666	66.34335	24.96049
#1	-.000129	-.000088	150.8291	.0004766	-.000449	.0029634	.0084775
#2	-.000112	-.000086	150.8749	.0004334	-.000424	.0021004	.0141236
#3	-.000114	-.000159	150.6120	.0005721	-.000553	.0005257	.0113297

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0036984	.1834162	.0006202	.0007117	336.8922	.0043544	.0083424
Stddev	.0000726	.0140212	.0001378	.0001891	1.5793	.0008006	.0005664
%RSD	1.963488	7.644477	22.22657	26.57389	.4687843	18.38603	6.788998
#1	.0037745	.1897423	.0007500	.0006561	335.6855	.0037965	.0089846
#2	.0036299	.1931598	.0004755	.0005567	336.3115	.0039949	.0081286
#3	.0036907	.1673466	.0006350	.0009224	338.6796	.0052717	.0079142

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.768859	.0279625	.0020456	-.003107	-.003454	5.177351	.0087769
Stddev	.026389	.0006696	.0001950	.000689	.000136	.022204	.0003613
%RSD	1.491887	2.394640	9.531386	22.17263	3.940355	.4288596	4.115884
#1	1.757094	.0277332	.0022210	-.002854	-.003445	5.164791	.0084310
#2	1.750398	.0287167	.0018357	-.003886	-.003323	5.164274	.0091518
#3	1.799084	.0274377	.0020801	-.002580	-.003595	5.202988	.0087479

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5337-03 Acquired: 12/23/2024 13:12:31 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	9.703073	-.029018	.3707885
Stddev	.069825	.000133	.0003846
%RSD	.7196207	.4567918	.1037298
#1	9.651509	-.029030	.3703937
#2	9.675177	-.028881	.3708097
#3	9.782534	-.029145	.3711621

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2531.224	58378.01	12866.31	1771.572	3780.820
Stddev	10.263	205.97	34.92	11.720	19.176
%RSD	.4054708	.3528257	.2714385	.6615776	.5071816
#1	2543.032	58531.01	12835.83	1780.608	3802.662
#2	2526.193	58459.21	12858.68	1775.778	3773.041
#3	2524.446	58143.81	12904.42	1758.328	3766.756

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5338-01 Acquired: 12/23/2024 13:16:55 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.008977	-.006400	.0032793	.0034118	.0000119	.0169706	.1515634
Stddev	.003047	.000919	.0014044	.0024520	.0004007	.0030296	.0009798
%RSD	33.93929	14.36100	42.82469	71.87023	3356.721	17.85210	.6464851
#1	-.005601	-.005674	.0025734	.0013067	.0004738	.0141213	.1508602
#2	-.009808	-.006091	.0023680	.0028244	-.000243	.0201530	.1511473
#3	-.011523	-.007433	.0048966	.0061041	-.000195	.0166374	.1526826

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000127	-.000185	.3263525	-.000225	-.000530	.0016474	.0244227
Stddev	.000040	.000082	.0232464	.000336	.000150	.0002714	.0022918
%RSD	31.19096	44.19816	7.123089	148.8724	28.27288	16.47608	9.384058
#1	-.000115	-.000244	.3160586	-.000227	-.000361	.0014526	.0240949
#2	-.000172	-.000219	.3100304	.000111	-.000645	.0019574	.0223124
#3	-.000096	-.000092	.3529685	-.000560	-.000585	.0015321	.0268607

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0063029	.0407567	.0006181	.0007196	330.4060	-.000073	.1726461
Stddev	.0000602	.0058560	.0001244	.0001287	2.2991	.000880	.0013014
%RSD	.9558213	14.36812	20.12946	17.88103	.6958301	1210.709	.7537802
#1	.0063025	.0461184	.0006077	.0008455	328.0629	.000877	.1711446
#2	.0062429	.0345077	.0007474	.0005883	330.4969	-.000234	.1733459
#3	.0063634	.0416439	.0004992	.0007250	332.6583	-.000860	.1734479

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1841335	.0389746	.0004180	.0001605	.0004255	.0330372	.0074854
Stddev	.0125492	.0004598	.0001318	.0006942	.0002540	.0019271	.0011834
%RSD	6.815275	1.179786	31.52131	432.4383	59.70308	5.833188	15.80963
#1	.1887730	.0395054	.0004180	-.000254	.0005414	.0351949	.0083005
#2	.1699252	.0387217	.0005497	-.000227	.0006008	.0324296	.0061280
#3	.1937024	.0386968	.0002862	.000962	.0001342	.0314871	.0080277

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5338-01 Acquired: 12/23/2024 13:16:55 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.5457275	-.005949	.0036244
Stddev	.0034355	.000328	.0000709
%RSD	.6295251	5.514833	1.955007
#1	.5460484	-.006231	.0035697
#2	.5489913	-.006028	.0035992
#3	.5421428	-.005589	.0037044

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2647.798	59290.78	12892.87	1804.634	4023.347
Stddev	7.277	132.54	35.42	10.416	5.177
%RSD	.2748489	.2235476	.2747203	.5771648	.1286754
#1	2652.207	59280.76	12853.41	1813.309	4022.963
#2	2651.788	59163.53	12903.27	1793.083	4028.706
#3	2639.398	59428.05	12921.92	1807.512	4018.373

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5338-02 Acquired: 12/23/2024 13:21:22 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.003491	-.001511	-.000694	.0029628	-.001529	.0109956	-.007932
Stddev	.001249	.000968	.000884	.0010687	.000705	.0019635	.000391
%RSD	35.78578	64.07006	127.3113	36.06969	46.08389	17.85751	4.923877
#1	-.004553	-.000488	-.001437	.0026092	-.002329	.0131148	-.007669
#2	-.002114	-.001631	.000283	.0041634	-.001256	.0106339	-.007747
#3	-.003807	-.002413	-.000930	.0021158	-.001002	.0092380	-.008381

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000054	-.000166	.1450933	-.000444	-.000100	.0026287	.0119699
Stddev	.000029	.000080	.0011803	.000203	.000192	.0000448	.0002728
%RSD	53.04514	48.22374	.8134714	45.83062	191.1400	1.702838	2.279168
#1	-.000034	-.000218	.1462342	-.000675	-.000072	.0026799	.0122602
#2	-.000041	-.000074	.1451685	-.000294	-.000305	.0025969	.0119306
#3	-.000087	-.000206	.1438772	-.000361	.000076	.0026093	.0117189

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0017764	.0084002	-.000131	.0011371	-.052904	-.000311	.0310770
Stddev	.0002961	.0039327	.000150	.0001828	.020675	.000978	.0001969
%RSD	16.66894	46.81725	114.1982	16.07684	39.08029	314.1493	.6336155
#1	.0014498	.0049767	-.000169	.0013460	-.029119	-.001441	.0308841
#2	.0018521	.0075282	-.000258	.0010584	-.066571	.000254	.0312777
#3	.0020273	.0126958	.000034	.0010067	-.063021	.000253	.0310692

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.136454	-.001145	.0002696	.0000277	.0003218	.0089187	.0075924
Stddev	.021291	.000146	.0000821	.0001103	.0004490	.0057568	.0011753
%RSD	15.60303	12.76613	30.43297	397.6192	139.5386	64.54728	15.47982
#1	-.122193	-.001180	.0002354	.0001005	-.000108	.0032282	.0085273
#2	-.126241	-.000985	.0003633	.0000819	.000788	.0087883	.0079770
#3	-.160927	-.001271	.0002102	-.000099	.000285	.0147396	.0062730

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5338-02 Acquired: 12/23/2024 13:21:22 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.2869590	-.005259	.0000263
Stddev	.0037730	.000721	.0000168
%RSD	1.314812	13.71534	63.65159
#1	.2827533	-.004535	.0000453
#2	.2880775	-.005977	.0000134
#3	.2900463	-.005266	.0000204

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2907.316	68402.89	13742.13	2059.958	4767.470
Stddev	5.326	468.79	44.05	20.219	9.338
%RSD	.1831854	.6853336	.3205756	.9815460	.1958741
#1	2904.601	68796.05	13691.36	2077.300	4769.978
#2	2913.452	68528.54	13770.31	2064.825	4775.297
#3	2903.895	67884.08	13764.71	2037.750	4757.133

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5341-02 Acquired: 12/23/2024 13:25:43 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.010132	-.005869	.3081836	.0012564	.0020454	.0456459	.4083550
Stddev	.002079	.000889	.0011437	.0025516	.0003298	.0020086	.0033060
%RSD	20.52407	15.15074	.3711082	203.0958	16.12524	4.400410	.8095840
#1	-.011216	-.006883	.3093786	-.000512	.0017065	.0467890	.4067137
#2	-.011445	-.005500	.3080730	.004182	.0020646	.0468221	.4121604
#3	-.007734	-.005223	.3070992	.000099	.0023653	.0433266	.4061908

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000219	.0395768	25.26716	.0024123	.0125670	.0181028	6.507708
Stddev	.0000183	.0001023	.12991	.0002692	.0001912	.0003561	.007958
%RSD	83.62795	.2583645	.5141353	11.15815	1.521849	1.967252	.1222831
#1	.0000205	.0396326	25.15842	.0021504	.0125886	.0177531	6.507652
#2	.0000409	.0394588	25.41101	.0023981	.0123658	.0184650	6.515694
#3	.0000043	.0396391	25.23204	.0026882	.0127465	.0180902	6.499779

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5239810	3.623451	.0251835	.0009463	357.1757	.0000879	6.433924
Stddev	.0039454	.017902	.0000923	.0004131	.9809	.0006001	.045195
%RSD	.7529647	.4940650	.3663506	43.65469	.2746132	682.8823	.7024462
#1	.5220421	3.613932	.0250875	.0012787	357.8014	-.000145	6.420923
#2	.5285207	3.612320	.0252715	.0010765	357.6804	.000770	6.396654
#3	.5213803	3.644102	.0251916	.0004838	356.0452	-.000361	6.484194

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	21.93117	.0575548	-.000748	-.001343	.0006387	2.063173	.0201160
Stddev	.02475	.0006858	.000162	.000333	.0002124	.016982	.0033713
%RSD	.1128429	1.191517	21.64629	24.83108	33.25637	.8230995	16.75939
#1	21.92398	.0577276	-.000872	-.001407	.0007965	2.049776	.0198798
#2	21.95871	.0581376	-.000808	-.001639	.0007225	2.057471	.0168690
#3	21.91081	.0567992	-.000565	-.000982	.0003972	2.082272	.0235992

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5341-02 Acquired: 12/23/2024 13:25:43 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.9763017	-.004484	.0994749
Stddev	.0035076	.000566	.0007760
%RSD	.3592727	12.63202	.7800991
#1	.9783671	-.004139	.0990033
#2	.9782862	-.004175	.1003706
#3	.9722517	-.005138	.0990510

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2540.759	58506.38	13021.47	1758.198	3826.582
Stddev	13.842	59.20	51.08	6.418	11.753
%RSD	.5448050	.1011938	.3922495	.3650349	.3071381
#1	2555.287	58438.02	13050.56	1752.943	3838.897
#2	2539.265	58539.79	12962.49	1765.351	3825.361
#3	2527.724	58541.33	13051.35	1756.301	3815.487

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-02 Acquired: 12/23/2024 13:39:03 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.009905	-.007356	.0067762	.0063876	.0007587	.1013903	.4664316
Stddev	.003326	.000633	.0004983	.0025494	.0004596	.0028009	.0036061
%RSD	33.57669	8.605825	7.353477	39.91103	60.58157	2.762455	.7731321
#1	-.013153	-.006897	.0062108	.0035524	.0011769	.1046123	.4662556
#2	-.010057	-.008078	.0071510	.0071194	.0002666	.0995363	.4701225
#3	-.006506	-.007093	.0069669	.0084912	.0008325	.1000223	.4629166

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001009	.0005487	14.95274	-.000197	-.000277	.0199711	.0608634
Stddev	.0000213	.0000257	.08583	.000275	.000179	.0000722	.0016855
%RSD	21.06822	4.679039	.5740415	139.4624	64.59963	.3614322	2.769350
#1	.0001048	.0005393	14.98775	-.000422	-.000182	.0200003	.0603124
#2	.0000779	.0005290	15.01555	-.000278	-.000484	.0198889	.0595224
#3	.0001199	.0005778	14.85494	.000109	-.000166	.0200242	.0627555

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1603249	4.674857	.0046584	.0008764	433.7294	-.000103	.2266536
Stddev	.0018020	.024835	.0001944	.0001950	2.3103	.000269	.0018736
%RSD	1.123971	.5312506	4.172935	22.25083	.5326690	261.0903	.8266473
#1	.1610262	4.675660	.0046101	.0010573	434.2307	-.000360	.2245396
#2	.1616708	4.699281	.0048725	.0009020	435.7478	-.000125	.2281089
#3	.1582777	4.649630	.0044928	.0006698	431.2095	.000177	.2273125

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.486741	.0536387	.0005910	.0001140	.0016951	1.351233	.0802781
Stddev	.016668	.0005013	.0000888	.0007127	.0002423	.013737	.0038976
%RSD	.6702900	.9346659	15.02431	625.0347	14.29583	1.016650	4.855107
#1	2.470036	.0530895	.0006676	.0007416	.0015403	1.351172	.0833970
#2	2.486813	.0540720	.0004937	-.000661	.0015707	1.365000	.0759087
#3	2.503373	.0537544	.0006117	.000261	.0019744	1.337526	.0815285

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-02 Acquired: 12/23/2024 13:39:03 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6594556	-.006232	.0914751
Stddev	.0020077	.000412	.0006264
%RSD	.3044535	6.614979	.6847999
#1	.6571488	-.005955	.0915462
#2	.6608085	-.006036	.0920630
#3	.6604096	-.006706	.0908162

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2532.777	57645.35	12948.00	1734.685	3813.751
Stddev	10.667	33.02	88.68	12.752	13.807
%RSD	.4211511	.0572900	.6849306	.7351289	.3620382
#1	2530.127	57607.73	12905.77	1727.068	3814.436
#2	2544.518	57669.56	12888.33	1727.580	3827.203
#3	2523.684	57658.77	13049.91	1749.407	3799.614

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: CCV02 Acquired: 12/23/2024 13:43:28 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.358494	5.232249	4.991716	5.481228	5.451889	10.17155	10.11433
Stddev	.006117	.081836	.015021	.014637	.008017	.02622	.08794
%RSD	.1141565	1.564067	.3009259	.2670436	.1470467	.2577324	.8694871
#1	5.365558	5.299439	4.983425	5.486072	5.452189	10.15913	10.06550
#2	5.354982	5.141111	4.982666	5.464783	5.443726	10.20166	10.21585
#3	5.354944	5.256198	5.009055	5.492829	5.459751	10.15384	10.06164

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2295214	2.498199	23.99836	1.003007	2.515304	1.336708	5.262340
Stddev	.0012627	.005903	.15044	.002622	.005511	.003039	.016548
%RSD	.5501421	.2363028	.6268753	.2613890	.2191153	.2273551	.3144586
#1	.2284997	2.496615	23.85324	1.003939	2.512093	1.336594	5.274258
#2	.2309331	2.493249	24.15360	1.005036	2.512150	1.333728	5.243446
#3	.2291315	2.504733	23.98825	1.000047	2.521668	1.339803	5.269316

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.409206	23.59319	2.530092	1.272712	26.61068	2.490792	2.445771
Stddev	.009978	.17112	.005101	.002317	.16503	.013680	.022329
%RSD	.4141795	.7252786	.2016002	.1820725	.6201557	.5492313	.9129533
#1	2.398075	23.41921	2.527618	1.273951	26.63902	2.479911	2.449193
#2	2.417349	23.76129	2.526699	1.274146	26.43332	2.506150	2.466192
#3	2.412194	23.59908	2.535958	1.270039	26.75970	2.486315	2.421929

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.26546	4.644616	5.352562	5.040625	4.965656	5.376765	4.959823
Stddev	.05919	.021754	.011934	.014728	.015383	.028983	.011771
%RSD	.2171036	.4683713	.2229594	.2921788	.3097786	.5390333	.2373170
#1	27.32403	4.621729	5.352176	5.039238	4.948187	5.353881	4.969877
#2	27.20566	4.665024	5.340826	5.026640	4.977175	5.367058	4.946876
#3	27.26670	4.647095	5.364685	5.055998	4.971604	5.409355	4.962718

Sample Name: CCV02 Acquired: 12/23/2024 13:43:28 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.065216	5.127415	5.129600
Stddev	.024125	.012146	.031823
%RSD	.4762956	.2368812	.6203747
#1	5.065592	5.114072	5.125183
#2	5.040906	5.130344	5.163400
#3	5.089152	5.137828	5.100217

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2686.715	61587.88	12076.76	1877.099	4015.795
Stddev	4.029	157.59	53.78	21.592	8.004
%RSD	.1499474	.2558816	.4453075	1.150265	.1993016
#1	2689.959	61462.91	12103.03	1865.948	4020.727
#2	2687.981	61535.82	12014.89	1863.362	4020.098
#3	2682.206	61764.92	12112.35	1901.986	4006.560

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: CCB02 Acquired: 12/23/2024 13:47:39 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002919	-.001365	.0000053	-.000209	-.000320	.0063628	-.006776
Stddev	.000486	.001081	.0002696	.000114	.000364	.0010125	.000417
%RSD	16.64493	79.19025	5095.965	54.52111	113.4692	15.91287	6.151590
#1	-.002358	-.000514	-.000064	-.000153	-.000125	.0055202	-.007198
#2	-.003193	-.000999	-.000223	-.000133	-.000740	.0060822	-.006365
#3	-.003206	-.002581	.000303	-.000340	-.000096	.0074860	-.006765

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000560	.0000711	.0036633	-.000146	.0000463	-.000309	-.002085
Stddev	.0000616	.0000396	.0023405	.000092	.0002503	.000237	.005685
%RSD	109.8955	55.69917	63.89160	62.72220	540.6667	76.68343	272.6374
#1	.0000732	.0001164	.0030904	-.000236	.0003031	-.000066	-.006097
#2	.0001071	.0000543	.0016624	-.000053	.0000327	-.000539	.004420
#3	-.000012	.0000427	.0062371	-.000149	-.000197	-.000321	-.004579

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000109	-.000196	.0000970	.0011443	.0369126	-.000720	-.000189
Stddev	.000034	.006133	.0000866	.0001461	.0156847	.000210	.000092
%RSD	31.67608	3133.766	89.31105	12.76328	42.49147	29.19971	48.84090
#1	-.000114	-.006634	.0001703	.0012757	.0294648	-.000598	-.000284
#2	-.000072	.000469	.0000014	.0011703	.0263393	-.000600	-.000184
#3	-.000140	.005578	.0001192	.0009870	.0549336	-.000963	-.000099

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0919105	.0062151	.0004151	-.000293	.0008825	.0020266	.0049057
Stddev	.0389702	.0001315	.0002218	.000315	.0002770	.0027790	.0010573
%RSD	42.40013	2.115436	53.43872	107.3812	31.38478	137.1272	21.55145
#1	.0481528	.0062198	.0006675	.000068	.0009889	.0050011	.0053588
#2	.1046997	.0060813	.0002511	-.000438	.0010906	-.000503	.0056609
#3	.1228791	.0063441	.0003268	-.000510	.0005681	.001582	.0036974

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: CCB02 Acquired: 12/23/2024 13:47:39 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB02 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0000451	-.001269	.0000648
Stddev	.0027562	.000551	.0000253
%RSD	6114.229	43.42222	38.97780
#1	-.002474	-.000635	.0000850
#2	.002989	-.001634	.0000365
#3	-.000380	-.001539	.0000731

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2887.346	64615.97	12803.17	1960.435	4712.278
Stddev	3.455	253.30	9.89	18.288	7.902
%RSD	.1196700	.3920066	.0772235	.9328298	.1676806
#1	2891.165	64335.58	12811.98	1939.737	4720.748
#2	2886.438	64828.26	12805.05	1974.407	4710.983
#3	2884.436	64684.06	12792.47	1967.161	4705.105

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-01 Acquired: 12/23/2024 13:52:00 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0861863	.0314591	1.761849	-.076954	.0188700	183.2307
Stddev	.0018346	.0026198	.004206	.003656	.0002662	.7039
%RSD	2.128658	8.327530	.2387088	4.751052	1.410595	.3841819
#1	.0852970	.0344626	1.762369	-.072933	.0191171	182.4267
#2	.0849658	.0296450	1.757407	-.077852	.0189048	183.5295
#3	.0882961	.0302697	1.765770	-.080077	.0185882	183.7360

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.159484	.0184001	.0665401	36.15529	.3640654	.4196121
Stddev	.022084	.0000684	.0004255	.05264	.0019781	.0004883
%RSD	.3585303	.3715643	.6394907	.1456022	.5433256	.1163580
#1	6.135010	.0184630	.0662159	36.18601	.3647497	.4190630
#2	6.177923	.0183273	.0670219	36.09450	.3618361	.4199973
#3	6.165519	.0184099	.0663825	36.18535	.3656105	.4197761

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6897832	442.6093	F 41.34850	96.46743	.9686421	.0184063
Stddev	.0030139	3.0767	.08612	.11301	.0026176	.0005653
%RSD	.4369339	.6951186	.2082761	.1171440	.2702372	3.071149
#1	.6864205	445.8942	41.41340	96.35191	.9666565	.0190583
#2	.6906880	439.7951	41.25080	96.47266	.9676613	.0181057
#3	.6922410	442.1385	41.38130	96.57774	.9716085	.0180548

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	4.026955	.4815357	2.356778	25.41766	.1987329	.0028323
Stddev	.027149	.0006804	.015212	.05833	.0040651	.0002454
%RSD	.6741864	.1412979	.6454640	.2294730	2.045510	8.665358
#1	4.058285	.4821073	2.351636	25.48459	.2028964	.0025672
#2	4.010345	.4817167	2.344804	25.39068	.1947739	.0030517
#3	4.012234	.4807831	2.373895	25.37771	.1985286	.0028778

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-01 Acquired: 12/23/2024 13:52:00 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0587955	3.325077	5.640514	F 12.13443	2.338580	.7542672
Stddev	.0019360	.008142	.006656	.01795	.006536	.0030524
%RSD	3.292740	.2448553	.1180121	.1479182	.2795027	.4046819
#1	.0580791	3.334473	5.644743	12.14542	2.333735	.7577029
#2	.0573198	3.320111	5.643959	12.14416	2.346014	.7518681
#3	.0609875	3.320646	5.632841	12.11372	2.335992	.7532306

Elem	Sr4077
Units	ppm
Avg	-.159817
Stddev	.002185
%RSD	1.367189
#1	-.162214
#2	-.157937
#3	-.159301

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3510.347	81582.73	17580.47	2457.932	3689.323
Stddev	4.571	88.13	23.87	15.016	6.844
%RSD	.1302093	.1080256	.1357684	.6109022	.1854987
#1	3509.283	81561.27	17564.63	2452.950	3692.781
#2	3515.356	81679.60	17607.92	2474.805	3693.747
#3	3506.402	81507.31	17568.85	2446.040	3681.440

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-01DLX5 Acquired: 12/23/2024 13:58:54 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0209655	.0061465	.3789338	-.018945	.0036079	47.53064	1.615349
Stddev	.0017891	.0005166	.0020047	.001393	.0009279	.03726	.004859
%RSD	8.533496	8.404573	.5290278	7.355322	25.71835	.0784011	.3008231
#1	.0197264	.0055710	.3785351	-.017804	.0026434	47.53318	1.619564
#2	.0230166	.0065702	.3771584	-.018533	.0044943	47.56656	1.610034
#3	.0201534	.0062982	.3811079	-.020498	.0036859	47.49216	1.616448

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051747	.0085866	9.810417	.0993414	.0863278	.1925470	120.4890
Stddev	.0001033	.0001645	.021556	.0003926	.0003965	.0000487	.1481
%RSD	1.995788	1.915587	.2197299	.3952474	.4593326	.0252776	.1229083
#1	.0051850	.0087387	9.814574	.0995149	.0867639	.1925030	120.5170
#2	.0050666	.0084120	9.787084	.0996174	.0859889	.1925993	120.3289
#3	.0052724	.0086089	9.829591	.0988919	.0862307	.1925387	120.6210

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.70961	25.20926	.2040986	.0054699	.9525057	.1276351	.6411716
Stddev	.03121	.04302	.0005047	.0001907	.0140828	.0012274	.0011267
%RSD	.2665581	.1706428	.2472852	3.485552	1.478502	.9616893	.1757305
#1	11.74273	25.17036	.2045507	.0054741	.9362992	.1272173	.6416606
#2	11.68074	25.20196	.2035541	.0052772	.9617655	.1266710	.6419713
#3	11.70536	25.25547	.2041910	.0056584	.9594524	.1290169	.6398830

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.220891	.0573943	.0005724	.0112962	.8879735	1.419317	2.430942
Stddev	.032111	.0005964	.0003659	.0009770	.0002923	.004314	.004009
%RSD	.5161844	1.039175	63.92754	8.648666	.0329174	.3039737	.1649337
#1	6.199930	.0568400	.0001500	.0101683	.8877158	1.415692	2.435281
#2	6.204884	.0573175	.0007755	.0118434	.8879134	1.418171	2.427375
#3	6.257860	.0580254	.0007918	.0118770	.8882911	1.424089	2.430168

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-01DLX5 Acquired: 12/23/2024 13:58:54 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4387870	.1894101	-.046413
Stddev	.0031885	.0013021	.000212
%RSD	.7266547	.6874434	.4572359
#1	.4380549	.1900084	-.046169
#2	.4360282	.1879164	-.046521
#3	.4422778	.1903055	-.046550

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2980.728	67017.36	13815.00	2041.474	4177.192
Stddev	10.168	219.69	60.11	10.568	13.548
%RSD	.3411321	.3278062	.4350963	.5176823	.3243271
#1	2970.795	66887.32	13758.70	2034.308	4161.859
#2	2991.116	66893.76	13808.00	2036.504	4187.545
#3	2980.274	67271.00	13878.30	2053.611	4182.172

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: CCV03 Acquired: 12/23/2024 14:07:22 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.341906	5.186907	4.937472	5.479522	5.492506	10.21047	10.21066
Stddev	.003715	.063115	.010247	.009797	.002846	.05893	.09806
%RSD	.0695495	1.216813	.2075424	.1787866	.0518083	.5771918	.9603403
#1	5.342144	5.253396	4.945095	5.484540	5.493725	10.17111	10.09852
#2	5.338077	5.127819	4.925823	5.468233	5.489254	10.18209	10.28026
#3	5.345496	5.179504	4.941498	5.485793	5.494538	10.27823	10.25321

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2301634	2.470846	23.97673	1.002685	2.498366	1.338377	5.197875
Stddev	.0018473	.004707	.18286	.004552	.005830	.003740	.012537
%RSD	.8026109	.1904946	.7626526	.4539789	.2333339	.2794735	.2411929
#1	.2285164	2.471848	23.80076	1.001882	2.499575	1.338275	5.183786
#2	.2298131	2.465718	23.96366	.998587	2.492027	1.334689	5.202037
#3	.2321608	2.474970	24.16577	1.007585	2.503496	1.342168	5.207801

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.395668	23.40895	2.508543	1.270516	26.11744	2.493330	2.449576
Stddev	.016208	.13736	.004694	.005042	.12280	.014572	.012910
%RSD	.6765572	.5867979	.1871139	.3968412	.4701965	.5844448	.5270487
#1	2.377311	23.26815	2.510327	1.270864	26.25923	2.479441	2.464445
#2	2.401691	23.41610	2.503219	1.265310	26.04499	2.492049	2.443073
#3	2.408002	23.54259	2.512083	1.275375	26.04811	2.508500	2.441210

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.24673	4.661732	5.392769	4.981811	4.989282	5.405926	4.873570
Stddev	.15848	.026929	.011956	.018946	.022473	.045520	.030149
%RSD	.5816623	.5776510	.2217049	.3803002	.4504189	.8420378	.6186228
#1	27.30556	4.634073	5.395139	4.995000	4.967156	5.385897	4.907914
#2	27.06725	4.663257	5.379806	4.960101	4.988604	5.373855	4.851466
#3	27.36739	4.687865	5.403363	4.990333	5.012086	5.458026	4.861331

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: CCV03 Acquired: 12/23/2024 14:07:22 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.994778	5.169267	5.163238
Stddev	.021710	.019109	.024865
%RSD	.4346508	.3696596	.4815769
#1	5.004760	5.159608	5.134653
#2	4.969872	5.156916	5.175200
#3	5.009701	5.191277	5.179861

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2673.176	61228.81	11971.86	1829.508	4027.510
Stddev	5.484	306.73	71.38	6.845	9.544
%RSD	.2051561	.5009515	.5962199	.3741498	.2369662
#1	2674.387	61190.82	12038.19	1821.830	4026.237
#2	2677.953	61552.76	11981.07	1834.973	4037.627
#3	2667.187	60942.85	11896.33	1831.720	4018.667

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: CCB03 Acquired: 12/23/2024 14:11:32 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000207	.0007776	-.000164	.0013306	.0004296	.0085352	-.005475
Stddev	.001601	.0004794	.000774	.0005324	.0006177	.0046245	.000625
%RSD	775.0026	61.64821	473.4519	40.01423	143.7799	54.18140	11.41200
#1	.000115	.0002748	.000248	.0014439	.0010968	.0138141	-.004994
#2	-.001944	.0008285	-.001057	.0017972	.0003145	.0065927	-.005251
#3	.001209	.0012295	.000318	.0007506	-.000122	.0051988	-.006182

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000895	.0001685	.0155271	-.000136	.0000660	.0003230	.0072239
Stddev	.0000407	.0001001	.0037097	.000376	.0002614	.0000395	.0004964
%RSD	45.46968	59.39057	23.89190	277.2178	396.1083	12.22249	6.872065
#1	.0000959	.0001890	.0120252	.000289	.0002899	.0002999	.0077959
#2	.0000460	.0002568	.0151415	-.000269	.0001293	.0003005	.0069055
#3	.0001267	.0000598	.0194145	-.000426	-.000221	.0003686	.0069702

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009119	-.000970	.0000957	.0011072	.0068866	-.000130	.0000313
Stddev	.0004202	.006241	.0003845	.0002305	.0138382	.001279	.0001053
%RSD	46.08282	643.2719	401.8375	20.81521	200.9440	986.0678	336.3063
#1	.0013578	.006230	.0002008	.0008425	-.005692	.001020	-.000087
#2	.0008546	-.004850	-.000330	.0012638	.004641	.000098	.000115
#3	.0005233	-.004290	.000417	.0012152	.021710	-.001507	.000066

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1300654	.0087835	.0007148	.0004083	.0019449	.0108777	.0011527
Stddev	.0166699	.0010792	.0002199	.0003454	.0003702	.0045787	.0031919
%RSD	12.81656	12.28708	30.76691	84.59891	19.03413	42.09265	276.8983
#1	.1205953	.0098019	.0008716	.0005259	.0023333	.0159572	.0044321
#2	.1202876	.0088964	.0008095	.0000194	.0019052	.0070678	.0009700
#3	.1493134	.0076523	.0004634	.0006794	.0015961	.0096080	-.001944

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: CCB03 Acquired: 12/23/2024 14:11:32 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB03 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0011991	-.001914	.0014068
Stddev	.0008069	.000631	.0003546
%RSD	67.28973	32.98447	25.21000
#1	.0021253	-.001390	.0017611
#2	.0008225	-.002614	.0014076
#3	.0006494	-.001736	.0010518

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2819.299	64613.37	12942.09	1961.709	4547.616
Stddev	7.759	174.95	30.88	7.920	5.755
%RSD	.2751940	.2707643	.2386067	.4037526	.1265429
#1	2810.652	64411.64	12967.83	1953.073	4541.536
#2	2825.652	64723.65	12907.85	1963.418	4552.977
#3	2821.593	64704.80	12950.60	1968.635	4548.335

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5343-05 Acquired: 12/23/2024 14:15:52 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0163985	-.002826	-.000650	.0042947	.0006344	.0129176	.1465311
Stddev	.0010415	.001138	.001329	.0027004	.0004920	.0052855	.0005945
%RSD	6.351050	40.27085	204.5280	62.87775	77.54335	40.91688	.4057191
#1	.0152626	-.002665	-.001387	.0034697	.0007998	.0188572	.1472081
#2	.0173085	-.004035	.000884	.0073114	.0010225	.0111630	.1460942
#3	.0166245	-.001777	-.001446	.0021031	.0000811	.0087325	.1462910

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000704	.0002299	18.36902	.0601155	.0041754	.0077952	.2891290
Stddev	.0000222	.0000417	.02380	.0004901	.0001365	.0006086	.0049260
%RSD	31.53130	18.12322	.1295880	.8153278	3.267865	7.807413	1.703734
#1	.0000825	.0002730	18.39316	.0596324	.0041733	.0070925	.2947556
#2	.0000448	.0001899	18.34556	.0601019	.0040400	.0081428	.2855933
#3	.0000839	.0002267	18.36835	.0606124	.0043129	.0081504	.2870382

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0866128	5.242194	.2120112	.0011182	283.5077	.0008205	1.633759
Stddev	.0006680	.023312	.0006418	.0001625	1.2486	.0004856	.005639
%RSD	.7712434	.4446913	.3027069	14.52912	.4404245	59.17973	.3451245
#1	.0873738	5.215322	.2118263	.0010449	284.3241	.0013293	1.628502
#2	.0861235	5.254270	.2114823	.0013044	284.1287	.0003619	1.633061
#3	.0863410	5.256990	.2127252	.0010054	282.0703	.0007704	1.639714

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.995852	.3022082	.2664348	-.000020	.0003845	5.121707	.8070458
Stddev	.023359	.0007558	.0011894	.000474	.0003814	.023772	.0047850
%RSD	.2596638	.2501069	.4464170	2378.282	99.17102	.4641323	.5929005
#1	9.021563	.3030620	.2651743	.000436	.0006978	5.096856	.8073708
#2	8.990055	.3019381	.2665929	.000014	-.000040	5.144227	.8021067
#3	8.975937	.3016245	.2675373	-.000510	.000496	5.124037	.8116600

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5343-05 Acquired: 12/23/2024 14:15:52 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	3.938437	-.003559	.1600607
Stddev	.027422	.000256	.0008334
%RSD	.6962602	7.183074	.5206650
#1	3.937456	-.003791	.1610192
#2	3.911520	-.003285	.1595078
#3	3.966337	-.003602	.1596550

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2595.174	58842.70	12969.62	1772.589	3938.641
Stddev	19.596	122.53	11.07	8.283	20.167
%RSD	.7550791	.2082375	.0853242	.4672632	.5120350
#1	2616.184	58978.23	12956.99	1781.107	3958.550
#2	2591.945	58739.76	12974.25	1764.563	3939.148
#3	2577.393	58810.11	12977.62	1772.098	3918.225

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-02DUP Acquired: 12/23/2024 14:20:12 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.011718	-.008347	.0074466	.0056506	-.000012	.1098161	.4669687
Stddev	.001340	.001439	.0006073	.0017642	.000543	.0034497	.0021673
%RSD	11.43566	17.23469	8.155157	31.22104	4514.823	3.141304	.4641272
#1	-.010505	-.008832	.0078090	.0050258	-.000111	.1062681	.4653828
#2	-.011492	-.006729	.0067455	.0076422	-.000498	.1131582	.4660850
#3	-.013156	-.009481	.0077853	.0042839	.000574	.1100219	.4694383

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000951	.0004947	14.94674	-.000109	-.000437	.0205758	.0690715
Stddev	.0000303	.0000352	.06416	.000138	.000284	.0003316	.0071907
%RSD	31.81136	7.120503	.4292428	126.4107	64.98838	1.611546	10.41048
#1	.0001155	.0005176	14.90567	-.000065	-.000691	.0201932	.0765962
#2	.0000604	.0005124	14.91388	.000002	-.000490	.0207796	.0622694
#3	.0001095	.0004541	15.02067	-.000264	-.000130	.0207546	.0683488

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1597812	4.700320	.0048660	.0007911	435.9724	.0001742	.2259666
Stddev	.0017005	.036185	.0002739	.0000671	1.4115	.0008675	.0025398
%RSD	1.064242	.7698515	5.629741	8.485375	.3237497	497.8850	1.123967
#1	.1580545	4.702935	.0046730	.0008659	434.4062	.0011284	.2249633
#2	.1598349	4.662898	.0047455	.0007713	437.1460	-.000039	.2288547
#3	.1614541	4.735127	.0051795	.0007361	436.3651	-.000567	.2240816

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.583864	.0550674	.0008898	-.000291	.0022719	1.401631	.0811355
Stddev	.033804	.0002963	.0002723	.000498	.0001311	.004402	.0017119
%RSD	1.308256	.5381292	30.59961	171.4789	5.768747	.3140919	2.109873
#1	2.622874	.0553370	.0006189	-.000768	.0022223	1.396585	.0823569
#2	2.565540	.0547501	.0008871	.000226	.0021729	1.404686	.0791788
#3	2.563180	.0551152	.0011634	-.000329	.0024205	1.403621	.0818706

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-02DUP Acquired: 12/23/2024 14:20:12 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.6676392	-.007121	.0921604
Stddev	.0036046	.000485	.0002981
%RSD	.5398960	6.808853	.3234695
#1	.6650394	-.007521	.0918507
#2	.6661242	-.007260	.0921852
#3	.6717540	-.006581	.0924453

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2490.871	56868.22	12874.39	1706.515	3755.742
Stddev	4.774	57.47	50.10	6.103	5.751
%RSD	.1916750	.1010660	.3891548	.3576155	.1531304
#1	2485.593	56801.99	12882.57	1700.340	3749.105
#2	2494.889	56904.95	12919.90	1706.663	3758.850
#3	2492.132	56897.73	12820.70	1712.542	3759.270

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-02LX5 Acquired: 12/23/2024 14:24:37 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.004134	-.001665	.0009627	.0010179	-.000452	.0237295	.0883178
Stddev	.002129	.000362	.0007672	.0016339	.000659	.0029554	.0004189
%RSD	51.49932	21.76532	79.69265	160.5173	145.8802	12.45464	.4743255
#1	-.005713	-.001504	.0010827	.0008597	.000276	.0253646	.0878448
#2	-.004977	-.002080	.0016628	.0027252	-.000622	.0255062	.0886420
#3	-.001713	-.001411	.0001426	-.000531	-.001008	.0203179	.0884664

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000468	.0000957	3.144629	-.000325	-.000094	.0043038	.0176648
Stddev	.0000252	.0000643	.016722	.000168	.000116	.0002352	.0048109
%RSD	53.71478	67.17370	.5317782	51.74426	123.3256	5.464219	27.23434
#1	.0000196	.0001029	3.125320	-.000385	.000034	.0045456	.0121484
#2	.0000691	.0001562	3.154364	-.000135	-.000192	.0040759	.0198561
#3	.0000518	.0000282	3.154204	-.000456	-.000125	.0042900	.0209900

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0332135	.9913499	.0010033	.0010009	83.19494	.0000604	.0447990
Stddev	.0002110	.0109136	.0004257	.0003279	.26162	.0003150	.0007047
%RSD	.6353099	1.100886	42.42840	32.76427	.3144674	521.5180	1.572913
#1	.0331080	.9787580	.0005333	.0006279	83.48941	-.000238	.0454490
#2	.0334564	.9972105	.0013629	.0012440	83.10609	.000029	.0440502
#3	.0330760	.9980813	.0011136	.0011309	82.98931	.000390	.0448979

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.5658458	.0143073	.0002920	.0002307	.0008870	.2715241	.0188168
Stddev	.0367968	.0003578	.0000834	.0008111	.0002440	.0050105	.0013422
%RSD	6.502967	2.500665	28.55516	351.6331	27.51036	1.845344	7.133043
#1	.5593766	.0140480	.0002472	-.000424	.0007425	.2744348	.0192121
#2	.5327127	.0141584	.0002406	.001138	.0011688	.2657384	.0173213
#3	.6054482	.0147155	.0003882	-.000021	.0007499	.2743990	.0199169

Sample Name: P5355-02LX5 Acquired: 12/23/2024 14:24:37 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.1326955	.0009357	.0188692
Stddev	.0006175	.0008404	.0000877
%RSD	.4653758	89.81472	.4649402
#1	.1322313	-.000034	.0187790
#2	.1324589	.001385	.0189543
#3	.1333964	.001456	.0188743

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2690.360	61055.34	12816.55	1836.925	4150.894
Stddev	8.463	315.64	38.99	14.956	7.241
%RSD	.3145839	.5169808	.3041922	.8141891	.1744350
#1	2696.852	60690.89	12822.32	1819.926	4156.914
#2	2693.441	61241.04	12775.01	1848.064	4152.908
#3	2680.788	61234.09	12852.34	1842.784	4142.859

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-02MS Acquired: 12/23/2024 14:28:57 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9063952	1.950109	.9635732	2.221415	.8071919	2.091182	.5434998
Stddev	.0043892	.025819	.0015835	.004404	.0055904	.005534	.0031639
%RSD	.4842461	1.323992	.1643337	.1982433	.6925727	.2646455	.5821250
#1	.9087736	1.925180	.9638404	2.224998	.8016778	2.085107	.5398496
#2	.9013302	1.976735	.9650060	2.216499	.8070422	2.095937	.5454549
#3	.9090819	1.948410	.9618731	2.222749	.8128556	2.092501	.5451949

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1742890	.2013843	12.36243	.4270284	.2056001	.3327082	3.429838
Stddev	.0004620	.0003858	.05448	.0017055	.0004684	.0007353	.033929
%RSD	.2650983	.1915917	.4406726	.3993837	.2278299	.2209976	.9892172
#1	.1738709	.2014279	12.30138	.4276175	.2053642	.3333345	3.392212
#2	.1747850	.2017465	12.37982	.4283613	.2052966	.3318986	3.458105
#3	.1742110	.2009786	12.40609	.4251065	.2061396	.3328914	3.439196

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3099900	5.369201	.5269662	.0799292	306.4134	.3001823	.3691620
Stddev	.0019089	.012643	.0007733	.0001347	1.5579	.0010247	.0010169
%RSD	.6158035	.2354810	.1467450	.1685713	.5084201	.3413504	.2754737
#1	.3077982	5.364240	.5277205	.0800547	306.0982	.2992435	.3702371
#2	.3108830	5.383572	.5270028	.0797869	308.1047	.3000280	.3682155
#3	.3112887	5.359790	.5261752	.0799461	305.0372	.3012754	.3690333

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.70046	.2817924	.4223138	.6410147	.1810601	1.824789	6.093320
Stddev	.03638	.0011806	.0009325	.0014224	.0006955	.005858	.024195
%RSD	.2655188	.4189448	.2208125	.2218973	.3841022	.3209989	.3970722
#1	13.66866	.2804398	.4217903	.6420580	.1807826	1.818180	6.066209
#2	13.69258	.2826156	.4217607	.6415916	.1818514	1.829338	6.112717
#3	13.74013	.2823217	.4233904	.6393945	.1805461	1.826849	6.101035

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-02MS Acquired: 12/23/2024 14:28:57 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4815685	.2031446	.2686267
Stddev	.0037468	.0007920	.0014402
%RSD	.7780479	.3898697	.5361352
#1	.4777785	.2023211	.2669679
#2	.4852706	.2039008	.2693539
#3	.4816565	.2032119	.2695584

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2565.524	58445.55	12515.58	1759.710	3863.449
Stddev	10.177	129.69	36.55	6.219	6.140
%RSD	.3966742	.2218920	.2920329	.3534018	.1589156
#1	2565.572	58565.94	12556.28	1765.596	3863.993
#2	2575.678	58308.23	12485.55	1753.205	3869.299
#3	2555.324	58462.49	12504.91	1760.328	3857.056

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-02MSD Acquired: 12/23/2024 14:33:06 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9075642	1.999891	.9772554	2.213332	.8021190	2.106433	.5478929
Stddev	.0061168	.020782	.0032901	.011146	.0035529	.008123	.0009179
%RSD	.6739839	1.039149	.3366671	.5035898	.4429354	.3856435	.1675290
#1	.9126632	2.023628	.9755106	2.226186	.8057805	2.097076	.5484744
#2	.9007820	1.991072	.9752053	2.207471	.8018909	2.110539	.5468347
#3	.9092474	1.984973	.9810504	2.206340	.7986857	2.111683	.5483695

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1778209	.2040776	12.58004	.4302778	.2071762	.3324936	3.454068
Stddev	.0007045	.0006623	.01154	.0008799	.0003555	.0008352	.017460
%RSD	.3961575	.3245356	.0917101	.2044960	.1716048	.2511962	.5054767
#1	.1770666	.2038053	12.56681	.4312467	.2068542	.3334579	3.448063
#2	.1784617	.2035947	12.58533	.4300583	.2071167	.3320020	3.440403
#3	.1779344	.2048326	12.58799	.4295285	.2075578	.3320208	3.473737

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3157259	5.482829	.5330792	.0804729	311.8794	.3034352	.3713636
Stddev	.0008990	.025829	.0015187	.0005386	1.2446	.0013849	.0007078
%RSD	.2847340	.4710800	.2848923	.6693076	.3990709	.4564081	.1905863
#1	.3148927	5.454172	.5324378	.0803035	312.6385	.3050012	.3708206
#2	.3156063	5.504312	.5319864	.0810759	310.4430	.3029327	.3721641
#3	.3166787	5.490004	.5348134	.0800394	312.5566	.3023717	.3711061

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.62920	.2868073	.4221931	.6501694	.1823009	1.804023	6.221979
Stddev	.01836	.0008386	.0007084	.0019636	.0010788	.003853	.004199
%RSD	.1347411	.2923979	.1677846	.3020100	.5917483	.2135827	.0674895
#1	13.65037	.2861759	.4229935	.6492682	.1822553	1.799676	6.219900
#2	13.61753	.2877589	.4216470	.6488182	.1812456	1.807020	6.226812
#3	13.61971	.2864872	.4219386	.6524218	.1834017	1.805372	6.219225

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-02MSD Acquired: 12/23/2024 14:33:06 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4892916	.2037442	.2704756
Stddev	.0068960	.0008073	.0005721
%RSD	1.409389	.3962515	.2115186
#1	.4942893	.2045948	.2710654
#2	.4814241	.2029885	.2699230
#3	.4921615	.2036494	.2704384

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2583.573	58211.00	12314.15	1772.376	3858.345
Stddev	3.550	53.85	24.21	10.309	7.327
%RSD	.1374035	.0925158	.1966031	.5816483	.1898918
#1	2579.474	58154.05	12338.79	1760.696	3860.254
#2	2585.570	58261.11	12290.40	1776.223	3864.527
#3	2585.674	58217.84	12313.25	1780.208	3850.252

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-02A Acquired: 12/23/2024 14:37:15 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9093993	1.970235	.9679252	2.218917	.8045117	2.101482	.5478538
Stddev	.0049248	.024244	.0054660	.000802	.0016017	.003969	.0028275
%RSD	.5415399	1.230520	.5647139	.0361654	.1990914	.1888887	.5161036
#1	.9037278	1.972479	.9646894	2.218879	.8032720	2.098339	.5482413
#2	.9125936	1.944947	.9648502	2.219738	.8063202	2.100164	.5504676
#3	.9118765	1.993280	.9742361	2.218134	.8039430	2.105943	.5448526

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1765125	.2021439	12.49006	.4284439	.2061910	.3321690	3.447355
Stddev	.0002505	.0010049	.03646	.0010086	.0006467	.0002364	.006071
%RSD	.1419174	.4971276	.2918869	.2354147	.3136403	.0711689	.1761041
#1	.1764826	.2015337	12.46615	.4275422	.2057310	.3323416	3.454361
#2	.1767767	.2015943	12.53202	.4282563	.2059116	.3322658	3.443650
#3	.1762783	.2033038	12.47201	.4295331	.2069304	.3318995	3.444053

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3142546	5.457709	.5286947	.0800542	310.1734	.3026028	.3690724
Stddev	.0014830	.018317	.0020657	.0002793	1.7860	.0003276	.0012908
%RSD	.4719215	.3356223	.3907102	.3488355	.5758100	.1082615	.3497304
#1	.3138681	5.441279	.5276317	.0798688	308.1383	.3022334	.3675889
#2	.3158926	5.477459	.5273771	.0799183	310.9014	.3027165	.3696897
#3	.3130031	5.454389	.5310754	.0803753	311.4804	.3028583	.3699386

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	13.64808	.2847098	.4217212	.6448197	.1822843	1.822539	6.114702
Stddev	.03694	.0014041	.0009367	.0032722	.0007114	.011689	.024046
%RSD	.2706316	.4931734	.2221198	.5074595	.3902730	.6413502	.3932426
#1	13.67431	.2862971	.4210169	.6420942	.1830952	1.809120	6.098597
#2	13.60584	.2842023	.4213625	.6439161	.1817651	1.827993	6.103167
#3	13.66409	.2836300	.4227843	.6484487	.1819926	1.830504	6.142342

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-02A Acquired: 12/23/2024 14:37:15 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4835771	.2043350	.2702981
Stddev	.0011051	.0018189	.0011463
%RSD	.2285196	.8901441	.4240883
#1	.4823377	.2059305	.2706461
#2	.4844594	.2047201	.2712301
#3	.4839343	.2023544	.2690181

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2580.760	58456.21	12377.96	1766.524	3872.559
Stddev	6.353	58.06	30.12	5.414	6.811
%RSD	.2461628	.0993226	.2433020	.3064728	.1758818
#1	2584.896	58408.90	12363.01	1760.602	3879.991
#2	2573.445	58521.00	12358.25	1771.219	3866.615
#3	2583.939	58438.72	12412.63	1767.751	3871.071

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5306-17 Acquired: 12/23/2024 14:41:25 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6780557	1.802131	.9328962	1.539624	.3698856	136.3845
Stddev	.0028773	.009555	.0017690	.005257	.0023757	.1564
%RSD	.4243447	.5301905	.1896244	.3414168	.6422837	.1146602
#1	.6811741	1.793714	.9333721	1.540218	.3675391	136.2430
#2	.6774892	1.812517	.9343786	1.544558	.3698282	136.3580
#3	.6755038	1.800161	.9309379	1.534096	.3722895	136.5524

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3318325	.1370483	.2297308	111.0214	.3278200	.5031647
Stddev	.0011897	.0002237	.0004959	.0477	.0011866	.0005618
%RSD	.3585091	.1632029	.2158590	.0430049	.3619641	.1116457
#1	.3304620	.1367904	.2292905	110.9940	.3272722	.5037904
#2	.3325984	.1371878	.2296340	111.0765	.3291815	.5030002
#3	.3324371	.1371669	.2302680	110.9937	.3270063	.5027036

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.353171	467.3792	3.721958	89.39191	.6410625	.0813007
Stddev	.003061	1.5089	.011940	.14985	.0004621	.0003457
%RSD	.2261777	.3228483	.3208080	.1676333	.0720854	.4252632
#1	1.355000	468.7827	3.708172	89.33339	.6405580	.0816983
#2	1.354874	465.7833	3.729028	89.56219	.6414653	.0810707
#3	1.349637	467.5716	3.728674	89.28015	.6411642	.0811332

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	30.36684	1.648019	.7037633	11.30813	.6950360	.3359037
Stddev	.07670	.002382	.0011049	.03182	.0022570	.0011567
%RSD	.2525798	.1445239	.1569983	.2813751	.3247235	.3443561
#1	30.27878	1.645271	.7044254	11.28893	.6976243	.3370744
#2	30.41903	1.649470	.7043766	11.34486	.6934781	.3358754
#3	30.40272	1.649318	.7024877	11.29060	.6940058	.3347615

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5306-17 Acquired: 12/23/2024 14:41:25 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6338080	8.692808	7.804104	F 15.56147	4.931256	.2248261
Stddev	.0013381	.022346	.005794	.01416	.014484	.0008988
%RSD	.2111192	.2570641	.0742474	.0909893	.2937185	.3997866
#1	.6334755	8.667398	7.800271	15.55123	4.935885	.2238225
#2	.6326675	8.701622	7.801271	15.57763	4.915023	.2250987
#3	.6352810	8.709402	7.810769	15.55555	4.942859	.2255570

Elem	Sr4077
Units	ppm
Avg	-.000550
Stddev	.002795
%RSD	508.0217
#1	-.003641
#2	.001797
#3	.000194

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3014.452	70653.83	15175.68	2106.770	3626.663
Stddev	7.133	33.52	12.23	7.376	6.982
%RSD	.2366169	.0474397	.0806220	.3501262	.1925294
#1	3007.184	70618.84	15161.88	2098.349	3623.170
#2	3021.441	70685.65	15179.96	2109.876	3634.702
#3	3014.732	70657.00	15185.19	2112.086	3622.115

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5306-17DUP Acquired: 12/23/2024 14:45:32 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6685628	1.763014	.9187069	1.500705	.3629177	136.6090
Stddev	.0051144	.018766	.0029154	.001214	.0021550	.4249
%RSD	.7649796	1.064454	.3173351	.0808788	.5937844	.3109990
#1	.6670634	1.780593	.9153658	1.501472	.3639779	136.1527
#2	.6742593	1.743251	.9200206	1.501338	.3604381	136.9932
#3	.6643658	1.765197	.9207343	1.499306	.3643372	136.6810

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.3311202	.1360752	.2267346	110.8205	.3274500	.4977662
Stddev	.0013228	.0004830	.0005849	.1741	.0011279	.0015326
%RSD	.3994834	.3549454	.2579896	.1571440	.3444387	.3078930
#1	.3297322	.1365143	.2261639	110.6552	.3287184	.4959968
#2	.3323663	.1361534	.2267070	111.0023	.3270719	.4986262
#3	.3312620	.1355578	.2273328	110.8040	.3265598	.4986757

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.331363	466.5845	3.701520	88.96392	.6320771	.0808776
Stddev	.002535	.7724	.012990	.22851	.0012448	.0002369
%RSD	.1904162	.1655422	.3509293	.2568601	.1969312	.2928502
#1	1.328566	467.1456	3.687608	88.83907	.6306928	.0806048
#2	1.332016	465.7036	3.713332	89.22766	.6324341	.0810310
#3	1.333509	466.9044	3.703619	88.82503	.6331043	.0809970

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	29.97136	1.650520	.7061865	11.26489	.6942646	.3330143
Stddev	.07402	.004955	.0012975	.04277	.0006252	.0003839
%RSD	.2469633	.3001983	.1837382	.3796603	.0900487	.1152931
#1	29.88594	1.645344	.7047335	11.23302	.6940868	.3331556
#2	30.01648	1.655219	.7065967	11.31350	.6937477	.3325797
#3	30.01167	1.650997	.7072294	11.24816	.6949595	.3333075

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5306-17DUP Acquired: 12/23/2024 14:45:32 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6216647	8.699929	7.852018	F 15.15518	4.790597	.2235298
Stddev	.0010171	.025038	.003848	.02538	.006315	.0014404
%RSD	.1636041	.2877931	.0490053	.1674822	.1318152	.6443723
#1	.6221022	8.672252	7.856454	15.18138	4.789999	.2218671
#2	.6223899	8.721006	7.850004	15.13070	4.784603	.2243259
#3	.6205021	8.706528	7.849594	15.15346	4.797190	.2243963

Elem	Sr4077
Units	ppm
Avg	.0006906
Stddev	.0025133
%RSD	363.9277
#1	-.002004
#2	.002970
#3	.001106

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3049.490	70658.21	15182.11	2079.686	3675.023
Stddev	1.690	99.09	34.51	1.924	2.176
%RSD	.0554171	.1402318	.2272941	.0925097	.0592109
#1	3049.524	70559.85	15168.63	2078.564	3675.850
#2	3047.783	70656.76	15156.39	2081.907	3672.555
#3	3051.162	70758.01	15221.33	2078.586	3676.664

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5306-17LX5 Acquired: 12/23/2024 14:49:37 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1524986	.3882438	.1933414	.3600565	.0824531	31.08621	.0697297
Stddev	.0020053	.0098928	.0008554	.0030246	.0001955	.11262	.0005252
%RSD	1.314956	2.548102	.4424291	.8400408	.2371506	.3622895	.7531682
#1	.1542100	.3957626	.1942615	.3612254	.0822689	30.95625	.0694688
#2	.1502922	.3770366	.1925702	.3566219	.0826583	31.14708	.0703343
#3	.1529936	.3919323	.1931925	.3623223	.0824321	31.15529	.0693861

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0328247	.0425486	26.25800	.0797349	.1002271	.3325448	112.8652
Stddev	.0001167	.0002744	.11253	.0004029	.0004273	.0009576	.2193
%RSD	.3553986	.6449440	.4285733	.5053399	.4263283	.2879482	.1942773
#1	.0329431	.0425802	26.14712	.0796895	.1000424	.3325598	112.8661
#2	.0328211	.0422597	26.37212	.0801586	.0999232	.3315799	113.0840
#3	.0327099	.0428058	26.25474	.0793566	.1007157	.3334948	112.6454

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8871077	20.65443	.1293897	.0197825	6.231585	.3877864	.1640672
Stddev	.0044010	.07923	.0004321	.0002712	.028962	.0009416	.0002996
%RSD	.4961101	.3836099	.3339183	1.371054	.4647538	.2428241	.1826097
#1	.8868161	20.56911	.1290457	.0200254	6.239655	.3871515	.1640574
#2	.8916473	20.72570	.1298746	.0194898	6.255655	.3888683	.1643716
#3	.8828598	20.66847	.1292489	.0198321	6.199444	.3873394	.1637726

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.571335	.1769128	.0782493	.1263252	2.033587	1.766461	3.007688
Stddev	.052178	.0011926	.0006166	.0007139	.004919	.003992	.010645
%RSD	2.029202	.6741410	.7879568	.5651391	.2418838	.2259641	.3539271
#1	2.511966	.1775056	.0781985	.1271459	2.029115	1.763597	3.014586
#2	2.592128	.1776930	.0776596	.1258471	2.038856	1.764766	2.995428
#3	2.609910	.1755400	.0788896	.1259827	2.032790	1.771020	3.013049

Sample Name: P5306-17LX5 Acquired: 12/23/2024 14:49:37 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.9292194	.0488491	-.005500
Stddev	.0024183	.0001819	.000204
%RSD	.2602537	.3723421	3.710378
#1	.9300562	.0487075	-.005491
#2	.9264938	.0490542	-.005300
#3	.9311082	.0487855	-.005708

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2844.416	64644.40	13478.98	1927.668	4180.324
Stddev	10.089	113.47	44.70	10.997	5.270
%RSD	.3546877	.1755281	.3316441	.5704622	.1260772
#1	2847.534	64600.55	13476.40	1935.639	4185.762
#2	2852.577	64559.40	13435.63	1915.122	4179.971
#3	2833.136	64773.25	13524.92	1932.242	4175.239

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5306-17MS Acquired: 12/23/2024 14:53:43 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.385184	3.641658	1.811778	3.206630	1.073482	138.9138
Stddev	.007361	.009518	.003046	.002386	.002305	.2756
%RSD	.5314241	.2613652	.1681276	.0744173	.2147203	.1983840
#1	1.378147	3.630670	1.808263	3.203930	1.076020	138.7328
#2	1.384573	3.647369	1.813428	3.208456	1.071519	138.7777
#3	1.392832	3.646934	1.813643	3.207504	1.072905	139.2310

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4864857	.2718531	.4102659	111.7307	.6339986	.6861742
Stddev	.0009304	.0011861	.0006437	.3935	.0019999	.0018524
%RSD	.1912390	.4363154	.1568979	.3521924	.3154472	.2699568
#1	.4856308	.2718824	.4105074	111.6361	.6340566	.6868117
#2	.4863497	.2706527	.4095364	111.3931	.6319703	.6840873
#3	.4874765	.2730244	.4107540	112.1629	.6359689	.6876237

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.571274	462.5067	3.847143	90.68533	1.102284	.1428445
Stddev	.004341	1.5588	.017441	.43211	.000933	.0006098
%RSD	.2763040	.3370247	.4533375	.4764944	.0846517	.4269094
#1	1.575618	461.3111	3.840918	90.59298	1.101638	.1423789
#2	1.566935	464.2697	3.833669	90.30686	1.101861	.1435348
#3	1.571268	461.9393	3.866842	91.15615	1.103354	.1426199

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	31.68836	1.875539	.8450421	20.53489	.8719782	.6830750
Stddev	.10506	.002717	.0021188	.08227	.0004893	.0014518
%RSD	.3315442	.1448883	.2507299	.4006537	.0561086	.2125398
#1	31.60407	1.873802	.8429888	20.44931	.8718605	.6844049
#2	31.80607	1.874144	.8472208	20.61340	.8725155	.6815262
#3	31.65496	1.878670	.8449167	20.54198	.8715584	.6832940

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5306-17MS Acquired: 12/23/2024 14:53:43 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.284052	8.864222	8.643724	F 20.47001	4.797772	.3940495
Stddev	.006532	.019866	.012936	.00402	.005300	.0013230
%RSD	.5087255	.2241200	.1496630	.0196357	.1104779	.3357354
#1	1.277628	8.853214	8.629582	20.47464	4.797781	.3932005
#2	1.283839	8.852297	8.646627	20.46748	4.803068	.3955738
#3	1.290688	8.887156	8.654962	20.46790	4.792467	.3933741

Elem	Sr4077
Units	ppm
Avg	.1646834
Stddev	.0015943
%RSD	.9681081
#1	.1649042
#2	.1629902
#3	.1661558

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2994.953	70414.52	14927.88	2070.750	3620.439
Stddev	5.210	80.22	48.70	3.627	3.754
%RSD	.1739515	.1139325	.3262225	.1751388	.1036837
#1	2990.200	70452.68	14908.18	2073.679	3622.892
#2	3000.523	70468.54	14983.35	2071.876	3622.308
#3	2994.135	70322.33	14892.12	2066.693	3616.118

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: CCV04 Acquired: 12/23/2024 15:06:19 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.212520	5.277374	4.871822	5.342638	5.314485	10.03629	9.721366
Stddev	.022367	.113310	.011460	.024420	.022756	.02668	.073003
%RSD	.4291019	2.147095	.2352261	.4570799	.4281869	.2658333	.7509569
#1	5.194511	5.192631	4.861690	5.326060	5.301031	10.05630	9.747437
#2	5.205491	5.233413	4.869517	5.331174	5.301665	10.00600	9.638906
#3	5.237557	5.406077	4.884259	5.370681	5.340759	10.04657	9.777754

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2259269	2.448787	23.39792	.9983512	2.460146	1.303605	5.151923
Stddev	.0008740	.006675	.04511	.0025939	.006084	.004524	.040649
%RSD	.3868389	.2726027	.1928003	.2598227	.2473031	.3470673	.7890048
#1	.2258528	2.443718	23.40993	.9983763	2.454806	1.299410	5.198760
#2	.2250924	2.446292	23.34801	.9957448	2.458864	1.303005	5.125840
#3	.2268356	2.456350	23.43580	1.000933	2.466769	1.308399	5.131170

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.325168	23.13130	2.475837	1.246197	24.23622	2.440202	2.346349
Stddev	.007603	.13748	.003855	.002647	.24692	.007782	.006681
%RSD	.3270055	.5943359	.1556884	.2124099	1.018816	.3189056	.2847480
#1	2.330667	23.02156	2.473608	1.243776	24.49881	2.448441	2.338776
#2	2.316491	23.08683	2.473614	1.245792	24.20115	2.432977	2.348861
#3	2.328344	23.28551	2.480288	1.249024	24.00871	2.439187	2.351411

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.37729	4.513904	5.293206	4.943145	4.824996	5.352190	4.796495
Stddev	.15956	.020279	.024406	.015606	.016489	.015496	.036437
%RSD	.6049079	.4492640	.4610837	.3157164	.3417418	.2895321	.7596537
#1	26.53965	4.509090	5.274646	4.928173	4.843593	5.335285	4.776784
#2	26.37153	4.496465	5.284121	4.941946	4.812161	5.355566	4.774160
#3	26.22069	4.536158	5.320852	4.959316	4.819233	5.365721	4.838541

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: CCV04 Acquired: 12/23/2024 15:06:19 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV04 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.892968	4.935283	4.946066
Stddev	.035869	.032719	.031783
%RSD	.7330698	.6629566	.6425860
#1	4.870494	4.972403	4.982717
#2	4.874076	4.922814	4.926107
#3	4.934334	4.910632	4.929373

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2694.941	60650.41	12002.26	1816.945	4036.564
Stddev	4.409	30.41	26.71	8.414	6.969
%RSD	.1636165	.0501380	.2225512	.4630588	.1726385
#1	2697.588	60659.30	11999.48	1823.451	4040.478
#2	2697.384	60675.39	12030.26	1807.444	4040.696
#3	2689.851	60616.55	11977.06	1819.941	4028.518

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: CCB04 Acquired: 12/23/2024 15:10:30 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.002136	.0006992	-.000164	.0003386	-.000699	.0057105	-.007070
Stddev	.001083	.0006754	.000772	.0027826	.000814	.0065331	.000526
%RSD	50.69546	96.60837	471.1085	821.9208	116.4661	114.4064	7.445947
#1	-.002558	.0001180	-.001010	.0025078	-.001605	.0055407	-.007424
#2	-.002944	.0014402	.000015	.0013067	-.000459	-.000736	-.006465
#3	-.000906	.0005393	.000503	-.002799	-.000032	.012327	-.007321

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000903	.0000206	.0109808	-.000412	-.000135	.0003474	.0057993
Stddev	.0000675	.0000606	.0034807	.000134	.000129	.0003563	.0036940
%RSD	74.78528	294.1931	31.69773	32.47864	95.49134	102.5488	63.69700
#1	.0000338	.0000754	.0108538	-.000323	-.000029	.0001578	.0086497
#2	.0001651	.0000310	.0145232	-.000347	-.000097	.0001260	.0071223
#3	.0000720	-.000045	.0075654	-.000566	-.000279	.0007584	.0016260

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0002684	-.001383	.0001241	.0011346	.0395202	-.000012	.0001643
Stddev	.0000840	.006977	.0002335	.0001995	.0130534	.001336	.0001259
%RSD	31.27851	504.4182	188.1489	17.58581	33.02976	11385.52	76.63268
#1	.0003590	.001228	.0003864	.0013582	.0289693	-.001525	.0002824
#2	.0001933	.003912	-.000061	.0010707	.0541178	.000488	.0000318
#3	.0002529	-.009289	.000047	.0009748	.0354736	.001002	.0001789

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2108281	.0071658	.0006585	.0003173	.0014197	.0096932	.0037054
Stddev	.0355071	.0003859	.0001390	.0010964	.0002840	.0053625	.0016670
%RSD	16.84174	5.385862	21.10212	345.4982	20.00458	55.32205	44.98734
#1	.2035717	.0069546	.0007280	.0005809	.0010919	.0043452	.0037578
#2	.1795096	.0076112	.0007490	-.000887	.0015923	.0150701	.0053457
#3	.2494028	.0069314	.0004985	.001258	.0015749	.0096643	.0020129

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: CCB04 Acquired: 12/23/2024 15:10:30 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB04 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0025376	-.003128	.0005800
Stddev	.0008471	.000201	.0001091
%RSD	33.38361	6.437791	18.80386
#1	.0016678	-.003156	.0007012
#2	.0033600	-.003315	.0005491
#3	.0025849	-.002915	.0004897

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2830.099	64163.72	12695.55	1936.473	4590.825
Stddev	2.554	33.36	32.91	4.082	.256
%RSD	.0902316	.0519934	.2592214	.2108153	.0055809
#1	2827.192	64139.47	12726.68	1931.794	4590.743
#2	2831.126	64149.92	12661.11	1938.317	4591.112
#3	2831.979	64201.77	12698.85	1939.308	4590.619

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5306-17MSD Acquired: 12/23/2024 15:14:51 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.371897	3.651956	1.833506	3.180764	1.049079	144.4549
Stddev	.001759	.019317	.003915	.001963	.001665	.4298
%RSD	.1281842	.5289577	.2135257	.0617200	.1586806	.2975082
#1	1.369868	3.669410	1.829064	3.179609	1.050804	144.2499
#2	1.372980	3.655257	1.835002	3.183031	1.047482	144.1660
#3	1.372843	3.631201	1.836452	3.179652	1.048950	144.9488

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4920004	.2771067	.4158621	115.2019	.6381064	.6965271
Stddev	.0002423	.0002715	.0006783	.1675	.0011135	.0003172
%RSD	.0492501	.0979770	.1631026	.1454346	.1745044	.0455425
#1	.4918445	.2773696	.4152227	115.2139	.6389963	.6961614
#2	.4922796	.2768274	.4165735	115.0287	.6368577	.6966924
#3	.4918772	.2771232	.4157900	115.3631	.6384652	.6967275

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.590821	462.9094	3.909087	92.66793	1.114073	.1422596
Stddev	.002263	1.6798	.003968	.26735	.002199	.0005521
%RSD	.1422809	.3628749	.1015052	.2885077	.1974185	.3880590
#1	1.593197	464.6978	3.906176	92.64452	1.111579	.1425610
#2	1.590576	461.3649	3.907478	92.41305	1.115735	.1416225
#3	1.588691	462.6653	3.913606	92.94622	1.114906	.1425954

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	31.55385	1.914604	.8487157	20.24352	.8717033	.6780627
Stddev	.05663	.008221	.0046284	.09066	.0050801	.0013632
%RSD	.1794751	.4294039	.5453385	.4478342	.5827753	.2010382
#1	31.56889	1.912733	.8533429	20.14536	.8775550	.6796172
#2	31.60144	1.907479	.8440861	20.26110	.8684241	.6774997
#3	31.49121	1.923599	.8487180	20.32410	.8691308	.6770712

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5306-17MSD Acquired: 12/23/2024 15:14:51 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.294382	9.194196	9.353419	F 20.85356	4.865478	.3910911
Stddev	.001540	.013647	.030725	.02347	.014369	.0017724
%RSD	.1189486	.1484292	.3284911	.1125695	.2953261	.4531858
#1	1.293525	9.182257	9.347964	20.82646	4.849195	.3891277
#2	1.296159	9.191258	9.325786	20.86784	4.870858	.3915730
#3	1.293461	9.209072	9.386506	20.86637	4.876380	.3925728

Elem	Sr4077
Units	ppm
Avg	.1733096
Stddev	.0026984
%RSD	1.556957
#1	.1701951
#2	.1747880
#3	.1749456

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3010.788	70195.67	14678.47	2094.006	3606.307
Stddev	1.905	89.10	38.54	7.788	7.282
%RSD	.0632581	.1269338	.2625676	.3719151	.2019145
#1	3010.169	70116.80	14636.74	2085.133	3614.237
#2	3012.925	70292.32	14712.72	2099.706	3604.765
#3	3009.269	70177.88	14685.96	2097.180	3599.920

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5306-17A Acquired: 12/23/2024 15:18:54 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.379943	3.616384	1.842951	3.202648	1.045984	151.2190
Stddev	.001710	.020159	.004616	.005552	.002802	.1871
%RSD	.1239018	.5574299	.2504869	.1733499	.2679060	.1237489
#1	1.380250	3.639640	1.844623	3.208368	1.047214	151.0142
#2	1.381478	3.603887	1.837732	3.197281	1.047962	151.2619
#3	1.378100	3.605624	1.846499	3.202296	1.042778	151.3810

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.4962520	.2756976	.4185021	117.7382	.6390655	.7034697
Stddev	.0004884	.0005581	.0001861	.2498	.0025474	.0018622
%RSD	.0984219	.2024127	.0444552	.2121875	.3986156	.2647206
#1	.4963583	.2751138	.4184114	117.6690	.6361247	.7015680
#2	.4966786	.2762257	.4183787	117.5303	.6404835	.7035513
#3	.4957192	.2757532	.4187161	118.0153	.6405885	.7052898

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.596703	473.8481	3.954150	93.55312	1.121333	.1441788
Stddev	.001983	1.9512	.007220	.26050	.002029	.0006656
%RSD	.1241688	.4117875	.1826053	.2784466	.1809772	.4616718
#1	1.596675	471.7436	3.961133	93.39650	1.119080	.1435391
#2	1.594734	475.5972	3.946714	93.40903	1.123017	.1448676
#3	1.598699	474.2035	3.954604	93.85382	1.121903	.1441295

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	32.44660	1.942139	.8583311	20.48988	.8733545	.6811855
Stddev	.11012	.002967	.0065908	.02095	.0070350	.0004332
%RSD	.3393940	.1527557	.7678560	.1022218	.8055174	.0635912
#1	32.53407	1.941122	.8545650	20.50719	.8652425	.6815617
#2	32.48278	1.939813	.8544869	20.46660	.8777819	.6807120
#3	32.32293	1.945480	.8659413	20.49586	.8770392	.6812830

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5306-17A Acquired: 12/23/2024 15:18:54 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.296437	9.531856	F 10.58641	F 21.04770	4.884805	.3918579
Stddev	.002799	.008970	.02597	.07245	.006264	.0014334
%RSD	.2159216	.0941039	.2453523	.3442171	.1282242	.3657881
#1	1.295747	9.538676	10.56045	21.12973	4.891834	.3934929
#2	1.294047	9.521695	10.61240	21.02088	4.879814	.3912631
#3	1.299517	9.535197	10.58639	20.99247	4.882768	.3908177

Elem	Sr4077
Units	ppm
Avg	.1696928
Stddev	.0029354
%RSD	1.729808
#1	.1729585
#2	.1672740
#3	.1688458

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3007.427	70424.09	14844.23	2075.355	3598.445
Stddev	.926	38.37	14.11	8.237	3.639
%RSD	.0307907	.0544853	.0950508	.3969140	.1011308
#1	3006.565	70431.02	14836.92	2069.677	3602.287
#2	3007.308	70382.72	14860.50	2084.803	3597.998
#3	3008.406	70458.52	14835.28	2071.586	3595.051

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-01DUP Acquired: 12/23/2024 15:22:58 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0856871	.0349344	1.779834	-.074997	.0180589	186.4042
Stddev	.0028235	.0052634	.001210	.003932	.0016656	.3622
%RSD	3.295135	15.06639	.0679772	5.243219	9.222870	.1942893
#1	.0874914	.0410027	1.780586	-.070644	.0196556	185.9919
#2	.0824332	.0321905	1.778439	-.076056	.0181891	186.5498
#3	.0871366	.0316099	1.780479	-.078291	.0163321	186.6710

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.111020	.0187163	.0686527	36.59774	.3702134	.4258182
Stddev	.045871	.0000735	.0002809	.11785	.0005313	.0007347
%RSD	.7506301	.3925202	.4092121	.3220109	.1434980	.1725471
#1	6.083235	.0187996	.0686542	36.51915	.3708073	.4259918
#2	6.085859	.0186607	.0689329	36.54082	.3697835	.4250122
#3	6.163966	.0186885	.0683710	36.73324	.3700493	.4264506

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6943298	445.6692	F 41.21477	97.12287	.9826523	.0199327
Stddev	.0003363	1.1904	.10027	.22805	.0004532	.0004293
%RSD	.0484278	.2671134	.2432832	.2348014	.0461182	2.153832
#1	.6946258	445.3377	41.18332	97.21620	.9825240	.0196122
#2	.6943994	444.6796	41.32699	96.86296	.9822770	.0197653
#3	.6939642	446.9902	41.13399	97.28944	.9831558	.0204204

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	3.974201	.4874140	2.326786	25.57196	.1846114	.0026445
Stddev	.024876	.0009809	.000645	.06053	.0016072	.0004158
%RSD	.6259249	.2012466	.0277195	.2366956	.8706024	15.72193
#1	3.945908	.4881756	2.327336	25.50320	.1847183	.0027811
#2	3.984058	.4863071	2.326946	25.59544	.1829533	.0029748
#3	3.992638	.4877592	2.326076	25.61722	.1861625	.0021776

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-01DUP Acquired: 12/23/2024 15:22:58 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0609891	3.397927	6.402620	F 12.25703	2.341395	.7504604
Stddev	.0016874	.002894	.037554	.00614	.014592	.0024254
%RSD	2.766757	.0851663	.5865480	.0500909	.6232371	.3231855
#1	.0629260	3.394608	6.385365	12.25118	2.330424	.7481545
#2	.0598376	3.399925	6.376794	12.25648	2.335804	.7529898
#3	.0602036	3.399248	6.445701	12.26342	2.357956	.7502368

Elem	Sr4077
Units	ppm
Avg	-.161463
Stddev	.001346
%RSD	.8336292
#1	-.162340
#2	-.159913
#3	-.162137

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3458.657	80102.51	17428.04	2378.352	3630.449
Stddev	4.182	134.87	21.55	4.502	4.435
%RSD	.1209263	.1683715	.1236547	.1892795	.1221506
#1	3454.803	80030.56	17425.09	2380.482	3625.658
#2	3458.063	80258.10	17450.90	2381.392	3631.277
#3	3463.104	80018.87	17408.11	2373.180	3634.411

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-01LX5 Acquired: 12/23/2024 15:27:36 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0191071	.0060548	.3896725	-.017932	.0049338	48.47154	1.601875
Stddev	.0007699	.0005414	.0001578	.000961	.0002323	.06505	.002580
%RSD	4.029243	8.941380	.0405049	5.357533	4.707717	.1341937	.1610715
#1	.0194656	.0055625	.3896716	-.018274	.0046673	48.39955	1.599407
#2	.0196323	.0059672	.3895152	-.018674	.0050408	48.48900	1.604554
#3	.0182233	.0066346	.3898308	-.016847	.0050933	48.52609	1.601664

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0051614	.0090726	9.959005	.1008394	.0888176	.1994160	121.5179
Stddev	.0000157	.0000839	.002524	.0005015	.0001199	.0018382	.5049
%RSD	.3036856	.9247441	.0253487	.4972980	.1349789	.9218071	.4155344
#1	.0051764	.0089797	9.956851	.1005956	.0887248	.1985012	121.4631
#2	.0051627	.0090952	9.958382	.1014162	.0887750	.1982146	122.0480
#3	.0051451	.0091429	9.961783	.1005065	.0889529	.2015321	121.0426

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.67356	25.57460	.2102842	.0065979	.9349858	.1301710	.6303924
Stddev	.04506	.05095	.0004403	.0000624	.0098648	.0020144	.0046136
%RSD	.3860046	.1992404	.2093958	.9453809	1.055072	1.547498	.7318653
#1	11.62575	25.52814	.2105385	.0065381	.9278707	.1324246	.6308506
#2	11.71524	25.62910	.2097757	.0066625	.9308396	.1295432	.6347598
#3	11.67968	25.56657	.2105383	.0065932	.9462469	.1285453	.6255667

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.293428	.0534188	.0004249	.0116600	.8974221	1.522451	2.522707
Stddev	.028050	.0007728	.0004787	.0013139	.0036432	.008827	.002102
%RSD	.4456965	1.446605	112.6819	11.26861	.4059630	.5798047	.0833148
#1	6.262301	.0533939	.0006189	.0121200	.8932302	1.528154	2.521101
#2	6.316744	.0542038	.0007761	.0126820	.8998243	1.512283	2.525086
#3	6.301239	.0526589	-.000120	.0101779	.8992118	1.526916	2.521935

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-01LX5 Acquired: 12/23/2024 15:27:36 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4543984	.1884860	-.047714
Stddev	.0030822	.0006062	.000484
%RSD	.6783042	.3215942	1.013960
#1	.4558432	.1885171	-.047696
#2	.4564928	.1890760	-.048206
#3	.4508592	.1878649	-.047239

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2902.295	66418.98	13792.77	2023.127	4064.706
Stddev	2.480	239.32	30.32	12.918	3.109
%RSD	.0854526	.3603230	.2198253	.6385090	.0764836
#1	2901.689	66310.20	13816.66	2018.080	4063.801
#2	2905.021	66253.36	13758.66	2013.495	4068.167
#3	2900.173	66693.37	13802.98	2037.807	4062.150

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-01MS Acquired: 12/23/2024 15:31:42 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7138541	1.899494	2.677783	1.436046	.6377798	188.7007
Stddev	.0008144	.010934	.003693	.002086	.0032167	.9610
%RSD	.1140773	.5756415	.1379001	.1452501	.5043588	.5092789
#1	.7147190	1.893533	2.673617	1.437558	.6367011	187.7820
#2	.7131021	1.892836	2.680655	1.433667	.6352411	188.6211
#3	.7137410	1.912114	2.679076	1.436914	.6413972	189.6991

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.227840	.1398574	.2583562	37.28036	.6446000	.6183758
Stddev	.041927	.0002826	.0000907	.11799	.0003869	.0008042
%RSD	.6732174	.2020879	.0351215	.3165026	.0600176	.1300529
#1	6.183755	.1395816	.2583133	37.14494	.6449923	.6175493
#2	6.267211	.1401464	.2582949	37.33510	.6445888	.6184226
#3	6.232554	.1398442	.2584605	37.36104	.6442188	.6191557

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9074452	441.6049	F 41.16145	98.97538	1.457019	.0764871
Stddev	.0022598	4.3055	.23379	.32267	.000784	.0006376
%RSD	.2490324	.9749638	.5679880	.3260119	.0537886	.8335767
#1	.9078561	441.7570	40.91669	98.60937	1.457827	.0763702
#2	.9094714	437.2254	41.38245	99.09799	1.456967	.0759160
#3	.9050081	445.8323	41.18522	99.21877	1.456262	.0771750

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.103290	.6887234	2.423770	33.13018	.3428548	.3150607
Stddev	.038767	.0022065	.000961	.08669	.0052715	.0006407
%RSD	.6351832	.3203757	.0396377	.2616640	1.537535	.2033677
#1	6.122855	.6867648	2.423961	33.17648	.3438240	.3144712
#2	6.058639	.6882913	2.424621	33.03018	.3371659	.3149682
#3	6.128376	.6911139	2.422728	33.18390	.3475745	.3157427

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-01MS Acquired: 12/23/2024 15:31:42 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7339304	3.525742	7.144444	F 17.71677	2.307271	.8906883
Stddev	.0020007	.007600	.031330	.04459	.012024	.0025210
%RSD	.2725999	.2155446	.4385287	.2516902	.5211278	.2830449
#1	.7327513	3.522698	7.108486	17.73259	2.307973	.8917154
#2	.7327995	3.520136	7.165865	17.66643	2.294912	.8878159
#3	.7362405	3.534391	7.158982	17.75130	2.318929	.8925337

Elem	Sr4077
Units	ppm
Avg	-.018071
Stddev	.003285
%RSD	18.17636
#1	-.018567
#2	-.014567
#3	-.021080

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3430.642	79754.78	17053.83	2358.051	3611.272
Stddev	.592	46.36	26.29	4.192	1.450
%RSD	.0172432	.0581327	.1541409	.1777771	.0401552
#1	3431.116	79702.94	17083.52	2353.314	3612.921
#2	3430.831	79792.28	17033.54	2359.559	3610.700
#3	3429.979	79769.13	17044.42	2361.281	3610.196

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-01MSD Acquired: 12/23/2024 15:36:14 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7055691	1.897646	2.654344	1.419664	.6341046	188.3594
Stddev	.0023689	.024176	.005884	.006297	.0013308	1.1067
%RSD	.3357374	1.273991	.2216876	.4435373	.2098694	.5875512
#1	.7029925	1.913099	2.647558	1.418023	.6352058	187.1385
#2	.7060624	1.869786	2.657431	1.414351	.6326258	189.2966
#3	.7076525	1.910054	2.658042	1.426619	.6344822	188.6432

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.256517	.1402511	.2572558	37.43901	.6449800	.6155466
Stddev	.048836	.0001110	.0005638	.08971	.0021490	.0018290
%RSD	.7805568	.0791227	.2191792	.2396114	.3331947	.2971397
#1	6.221445	.1401484	.2569938	37.35260	.6468837	.6143695
#2	6.312294	.1403688	.2568707	37.53169	.6426496	.6146164
#3	6.235812	.1402360	.2579030	37.43275	.6454067	.6176537

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.8991579	440.1953	F 41.25648	99.20677	1.447217	.0762159
Stddev	.0005500	2.0960	.20149	.34178	.004470	.0001899
%RSD	.0611657	.4761474	.4883787	.3445136	.3089022	.2491397
#1	.8993746	439.8059	41.37897	98.82967	1.443576	.0760328
#2	.8995666	438.3214	41.02393	99.49611	1.445868	.0762030
#3	.8985326	442.4587	41.36653	99.29454	1.452207	.0764119

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.140129	.6914865	2.397296	33.20510	.3391033	.3130663
Stddev	.000225	.0029796	.005331	.06279	.0025716	.0001154
%RSD	.0036607	.4309047	.2223891	.1890997	.7583386	.0368520
#1	6.140374	.6897942	2.401194	33.20050	.3391297	.3131986
#2	6.139933	.6949269	2.391221	33.14473	.3365186	.3130144
#3	6.140079	.6897383	2.399475	33.27006	.3416615	.3129861

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-01MSD Acquired: 12/23/2024 15:36:14 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7251512	3.632805	8.109876	F 17.64453	2.271198	.8931762
Stddev	.0019786	.011719	.026868	.09465	.008148	.0015580
%RSD	.2728584	.3225960	.3312995	.5364512	.3587588	.1744294
#1	.7259580	3.621989	8.091613	17.61090	2.272090	.8914146
#2	.7228967	3.645256	8.097289	17.57127	2.262641	.8943729
#3	.7265990	3.631170	8.140727	17.75140	2.278864	.8937411

Elem	Sr4077
Units	ppm
Avg	-.012253
Stddev	.002297
%RSD	18.74422
#1	-.012662
#2	-.009779
#3	-.014317

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3450.121	79858.32	17003.36	2365.901	3634.418
Stddev	6.794	165.13	37.41	7.512	12.148
%RSD	.1969168	.2067793	.2199977	.3175186	.3342601
#1	3457.776	79741.41	17031.03	2357.229	3646.262
#2	3444.806	80047.23	16960.80	2370.410	3635.005
#3	3447.782	79786.34	17018.24	2370.065	3621.986

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-01A Acquired: 12/23/2024 15:40:45 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7337203	1.993349	2.712536	1.485728	.6570867	191.7273
Stddev	.0033733	.013306	.006052	.003585	.0042759	.5160
%RSD	.4597601	.6675246	.2231127	.2412822	.6507322	.2691407
#1	.7366457	1.983743	2.717080	1.489769	.6619380	191.9300
#2	.7344850	2.008536	2.705666	1.482930	.6554558	192.1111
#3	.7300302	1.987767	2.714861	1.484485	.6538662	191.1407

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.286622	.1449616	.2654684	37.74466	.6613591	.6284551
Stddev	.049427	.0002824	.0005663	.04962	.0014574	.0013425
%RSD	.7862312	.1948157	.2133290	.1314670	.2203702	.2136189
#1	6.308073	.1449072	.2661057	37.71528	.6610339	.6295616
#2	6.321699	.1452673	.2652766	37.80195	.6629517	.6269616
#3	6.230093	.1447104	.2650228	37.71675	.6600917	.6288420

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.9118781	445.1326	F 41.51841	100.4754	1.479805	.0795232
Stddev	.0016920	1.9996	.13700	.2493	.002689	.0001873
%RSD	.1855496	.4492136	.3299632	.2481265	.1817405	.2355789
#1	.9114656	447.3993	41.44639	100.2255	1.481695	.0797224
#2	.9104305	444.3801	41.67639	100.7241	1.476726	.0794968
#3	.9137382	443.6184	41.43245	100.4766	1.480995	.0793505

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.234950	.7018568	2.406131	33.81551	.3422057	.3238781
Stddev	.030737	.0014394	.003305	.05808	.0026341	.0012270
%RSD	.4929737	.2050858	.1373622	.1717440	.7697335	.3788623
#1	6.265373	.7008921	2.409515	33.83395	.3452459	.3251409
#2	6.235566	.7035113	2.402910	33.75045	.3406061	.3238031
#3	6.203909	.7011670	2.405969	33.86213	.3407652	.3226902

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-01A Acquired: 12/23/2024 15:40:45 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.7549289	3.743868	9.482679	F 18.08639	2.317235	.9024006
Stddev	.0013443	.001266	.050163	.02644	.007412	.0020640
%RSD	.1780649	.0338167	.5289933	.1461725	.3198817	.2287174
#1	.7547438	3.743503	9.429819	18.06821	2.311621	.9047812
#2	.7536867	3.745277	9.488599	18.11672	2.325638	.9013061
#3	.7563561	3.742825	9.529619	18.07426	2.314448	.9011144

Elem	Sr4077
Units	ppm
Avg	-.012981
Stddev	.001168
%RSD	8.996854
#1	-.014315
#2	-.012485
#3	-.012142

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	3408.732	79081.37	16925.56	2360.353	3582.235
Stddev	9.620	42.34	35.41	2.176	7.553
%RSD	.2822272	.0535449	.2092309	.0921791	.2108453
#1	3398.680	79061.28	16911.11	2357.956	3574.213
#2	3417.853	79052.81	16899.65	2362.203	3589.210
#3	3409.663	79130.02	16965.91	2360.899	3583.283

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-01DUPDLX5 Acquired: 12/23/2024 15:49:45 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0188032	.0076235	.3872600	-.019882	.0037801	48.49781	1.584677
Stddev	.0020302	.0004451	.0014267	.002039	.0011458	.01851	.001703
%RSD	10.79710	5.837838	.3683981	10.25728	30.31143	.0381609	.1074612
#1	.0166173	.0079040	.3856252	-.018820	.0026794	48.47875	1.584268
#2	.0206297	.0071103	.3882531	-.022233	.0036945	48.51570	1.586547
#3	.0191625	.0078561	.3879017	-.018593	.0049662	48.49897	1.583216

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0052023	.0091338	9.975456	.1014232	.0884150	.1976651	120.8268
Stddev	.0000824	.0000799	.021935	.0002200	.0002615	.0009850	.5191
%RSD	1.584712	.8743076	.2198926	.2169556	.2958250	.4982932	.4296331
#1	.0052626	.0092083	9.950198	.1016629	.0881324	.1976628	120.4111
#2	.0052358	.0090495	9.989722	.1012303	.0886486	.1986512	120.6606
#3	.0051083	.0091437	9.986449	.1013763	.0884639	.1966813	121.4086

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.66608	25.51869	.2095597	.0063140	.9898872	.1292809	.6249505
Stddev	.01282	.03140	.0002154	.0004160	.0118280	.0017678	.0020135
%RSD	.1098919	.1230399	.1027919	6.588918	1.194882	1.367397	.3221915
#1	11.65185	25.51137	.2093154	.0061519	.9766472	.1289955	.6270238
#2	11.66966	25.49160	.2096415	.0060035	.9936039	.1276732	.6230026
#3	11.67673	25.55310	.2097222	.0067867	.9994104	.1311740	.6248251

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	6.230391	.0485598	.0003892	.0118538	.9015329	1.589509	2.512634
Stddev	.022789	.0004276	.0000711	.0003691	.0022941	.009281	.007949
%RSD	.3657653	.8805513	18.28016	3.114103	.2544615	.5838998	.3163472
#1	6.204177	.0481079	.0003504	.0122535	.8990863	1.584708	2.503888
#2	6.245488	.0486136	.0004713	.0117823	.9036356	1.583611	2.514598
#3	6.241507	.0489580	.0003458	.0115256	.9018767	1.600207	2.519417

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-01DUPDLX5 Acquired: 12/23/2024 15:49:45 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4532977	.1887408	-.047549
Stddev	.0026685	.0012086	.000588
%RSD	.5886793	.6403226	1.237664
#1	.4549837	.1874857	-.047096
#2	.4502212	.1898967	-.047336
#3	.4546883	.1888400	-.048214

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2871.672	65424.95	13470.58	1984.497	4028.219
Stddev	5.802	93.43	32.33	10.342	6.351
%RSD	.2020282	.1427976	.2399953	.5211540	.1576611
#1	2865.506	65412.19	13441.12	1978.667	4026.161
#2	2872.489	65524.10	13465.46	1996.439	4035.344
#3	2877.023	65338.56	13505.16	1978.387	4023.152

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-01LDLX25 Acquired: 12/23/2024 15:53:52 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0036007	.0003283	.0805486	-.004006	.0004478	10.68301	.3388738
Stddev	.0020784	.0022885	.0008763	.001846	.0010485	.01810	.0027277
%RSD	57.72246	697.0517	1.087861	46.08699	234.1683	.1694115	.8049287
#1	.0026232	.0010434	.0808689	-.001972	-.000549	10.70260	.3410481
#2	.0021913	-.002232	.0812197	-.005577	.001541	10.67953	.3397601
#3	.0059877	.002174	.0795573	-.004468	.000352	10.66691	.3358132

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0012038	.0014931	2.219284	.0224405	.0178936	.0444904	26.60945
Stddev	.0000604	.0000733	.010135	.0000958	.0001016	.0002477	.09509
%RSD	5.018707	4.912743	.4566770	.4268314	.5676405	.5567220	.3573549
#1	.0012666	.0015439	2.225350	.0223726	.0178340	.0444536	26.63893
#2	.0011987	.0014090	2.224918	.0223989	.0178359	.0442631	26.68631
#3	.0011461	.0015264	2.207584	.0225500	.0180109	.0447544	26.50311

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.595334	5.593255	.0422782	.0021046	.2355216	.0276104	.1387678
Stddev	.013412	.034819	.0001262	.0002829	.0145266	.0008077	.0006167
%RSD	.5167652	.6225188	.2985623	13.44013	6.167860	2.925330	.4444091
#1	2.602166	5.621339	.0424027	.0018061	.2191976	.0283034	.1394695
#2	2.603955	5.604131	.0421503	.0023686	.2403418	.0278045	.1383122
#3	2.579882	5.554297	.0422816	.0021390	.2470254	.0267234	.1385216

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1.444665	.0105358	.0000784	.0018520	.1985127	.3384557	.5016198
Stddev	.015297	.0005336	.0002159	.0005879	.0012957	.0044384	.0016899
%RSD	1.058851	5.064461	275.5186	31.74483	.6527006	1.311377	.3368885
#1	1.427530	.0100045	.0001909	.0012646	.1973368	.3347642	.4998843
#2	1.449522	.0105314	-.000171	.0018510	.1982995	.3372225	.5032601
#3	1.456944	.0110716	.000215	.0024404	.1999017	.3433803	.5017150

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-01LDLX25 Acquired: 12/23/2024 15:53:52 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.0879154	.0389239	-.010143
Stddev	.0032623	.0002454	.000018
%RSD	3.710698	.6304506	.1765047
#1	.0842751	.0390293	-.010123
#2	.0905745	.0390989	-.010157
#3	.0888965	.0386434	-.010150

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2810.370	63582.61	12909.76	1923.093	4338.242
Stddev	3.228	64.00	51.80	3.717	6.661
%RSD	.1148636	.1006540	.4012767	.1932664	.1535336
#1	2811.820	63597.31	12876.32	1926.940	4330.749
#2	2812.618	63512.54	12883.53	1919.521	4343.491
#3	2806.671	63637.98	12969.44	1922.819	4340.487

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: CCV05 Acquired: 12/23/2024 16:06:39 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	5.375618	5.082290	4.919396	5.499302	5.491012	10.27005	9.909651
Stddev	.008401	.082867	.010092	.020486	.013701	.01198	.081442
%RSD	.1562867	1.630507	.2051382	.3725204	.2495091	.1166062	.8218403
#1	5.381059	5.099251	4.917986	5.520021	5.506671	10.28307	10.00309
#2	5.365942	4.992255	4.910084	5.479057	5.485131	10.25951	9.87213
#3	5.379854	5.155365	4.930118	5.498826	5.481234	10.26756	9.85374

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2274521	2.474183	23.69466	1.007502	2.494947	1.344477	5.244169
Stddev	.0004357	.006098	.01445	.006525	.006324	.001096	.023047
%RSD	.1915795	.2464743	.0609969	.6476703	.2534750	.0815480	.4394783
#1	.2278117	2.472868	23.67834	1.009583	2.494928	1.345021	5.233847
#2	.2275771	2.468849	23.69981	1.000190	2.488633	1.345196	5.228086
#3	.2269675	2.480831	23.70584	1.012733	2.501281	1.343215	5.270572

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.357766	23.22892	2.511067	1.269764	24.98082	2.489970	2.354131
Stddev	.001488	.06905	.004647	.000951	.12391	.002686	.010647
%RSD	.0630995	.2972579	.1850707	.0749038	.4960359	.1078550	.4522771
#1	2.358208	23.14919	2.511262	1.270099	25.12192	2.493020	2.358185
#2	2.358982	23.26814	2.506325	1.268691	24.88968	2.488928	2.342052
#3	2.356107	23.26942	2.515613	1.270503	24.93087	2.487961	2.362156

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	27.07638	4.566373	5.396685	4.966164	4.920661	5.494860	4.864609
Stddev	.10867	.010130	.003490	.019801	.005870	.057180	.036883
%RSD	.4013434	.2218478	.0646681	.3987092	.1192881	1.040602	.7581974
#1	27.10799	4.571404	5.400471	4.965186	4.925350	5.452565	4.875267
#2	26.95540	4.573004	5.393597	4.946871	4.922556	5.472101	4.823570
#3	27.16573	4.554712	5.395987	4.986435	4.914078	5.559915	4.894989

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: CCV05 Acquired: 12/23/2024 16:06:39 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV05 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	4.941949	5.073581	5.077684
Stddev	.026243	.008693	.020554
%RSD	.5310349	.1713475	.4047967
#1	4.953315	5.082041	5.059120
#2	4.911938	5.074030	5.074159
#3	4.960593	5.064671	5.099773

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2628.549	60027.49	11976.69	1783.558	3969.484
Stddev	5.366	184.10	42.87	14.977	7.528
%RSD	.2041303	.3066856	.3579272	.8397447	.1896583
#1	2622.865	59883.71	11932.54	1768.041	3963.070
#2	2629.258	60234.97	11979.40	1797.930	3977.773
#3	2633.525	59963.77	12018.15	1784.704	3967.608

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: CCB05 Acquired: 12/23/2024 16:10:50 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000615	.0000353	-.000185	.0011355	-.000102	.0030972	-.009936
Stddev	.000807	.0009852	.000694	.0006291	.000794	.0013178	.000385
%RSD	131.0984	2787.271	375.6477	55.40428	780.6899	42.54925	3.877927
#1	-.001458	-.001090	.000300	.0015835	-.000140	.0021650	-.010342
#2	-.000536	.000451	.000125	.0004163	-.000876	.0046049	-.009575
#3	.000149	.000744	-.000979	.0014067	.000711	.0025217	-.009891

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000650	-.000006	.0026142	-.000167	-.000071	.0002794	-.000962
Stddev	.0000384	.000036	.0027658	.000113	.000072	.0005733	.002728
%RSD	59.03858	655.6079	105.7960	67.49860	101.5009	205.2096	283.6600
#1	.0000688	.000023	.0010080	-.000092	-.000140	-.000264	.001628
#2	.0001013	.000006	.0058078	-.000112	.000004	.000224	-.000704
#3	.0000249	-.000046	.0010268	-.000296	-.000076	.000878	-.003809

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.000059	-.006320	.0000787	.0011817	.0125848	-.000573	.0000727
Stddev	.000282	.005497	.0000450	.0001675	.0234973	.001044	.0000652
%RSD	476.8072	86.98452	57.25148	14.17548	186.7123	182.1624	89.68443
#1	.000062	-.000060	.0000367	.0013592	-.007327	.000556	.0000080
#2	.000142	-.008539	.0001263	.0011596	.006580	-.000773	.0001384
#3	-.000381	-.010360	.0000730	.0010264	.038502	-.001503	.0000716

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0959957	.0060579	.0007051	.0001114	.0002070	.0087658	.0002457
Stddev	.0311060	.0001238	.0001951	.0002542	.0000930	.0028894	.0004532
%RSD	32.40347	2.043703	27.66990	228.2342	44.91583	32.96213	184.4948
#1	.0601500	.0059783	.0006805	-.000137	.0001122	.0086280	.0004258
#2	.1158924	.0059948	.0009114	.000371	.0002981	.0059477	.0005811
#3	.1119447	.0062005	.0005235	.000100	.0002108	.0117216	-.000270

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: CCB05 Acquired: 12/23/2024 16:10:50 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB05 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000502	-.002367	-.000022
Stddev	.002898	.000458	.000013
%RSD	577.7923	19.33419	58.86629
#1	-.001102	-.002846	-.000033
#2	-.003053	-.002322	-.000008
#3	.002650	-.001934	-.000025

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2745.343	63389.76	12880.59	1899.804	4474.363
Stddev	3.099	102.14	20.18	4.537	3.738
%RSD	.1128871	.1611327	.1566535	.2387955	.0835416
#1	2742.041	63345.57	12892.14	1895.989	4471.359
#2	2745.802	63317.17	12892.34	1904.820	4478.549
#3	2748.188	63506.56	12857.29	1898.603	4473.180

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-01MSDLX5 Acquired: 12/23/2024 16:15:11 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1835360	.4158862	.5771657	.3873618	.1676838	48.84567	1.647138
Stddev	.0019248	.0096614	.0012901	.0023484	.0023359	.08802	.002490
%RSD	1.048731	2.323089	.2235221	.6062556	1.393021	.1801954	.1511554
#1	.1829186	.4222699	.5778439	.3888957	.1667625	48.75510	1.644792
#2	.1819957	.4206177	.5756780	.3885314	.1703398	48.93089	1.646873
#3	.1856938	.4047710	.5779753	.3846582	.1659491	48.85101	1.649750

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0377511	.0491806	10.12375	.1763754	.1281816	.2543174	122.0740
Stddev	.0001406	.0000726	.01798	.0004978	.0001355	.0009643	.5254
%RSD	.3723503	.1475096	.1776447	.2822262	.1057404	.3791541	.4304266
#1	.0377122	.0491786	10.10399	.1769501	.1281965	.2548158	121.5039
#2	.0376341	.0492541	10.13915	.1760807	.1280393	.2532059	122.1793
#3	.0379070	.0491090	10.12813	.1760954	.1283091	.2549304	122.5389

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.58936	25.49633	.3084873	.0217644	1.514444	.1835394	.6534737
Stddev	.02923	.10726	.0005604	.0002473	.017797	.0003329	.0009478
%RSD	.2522049	.4206855	.1816485	1.136381	1.175168	.1813965	.1450392
#1	11.55769	25.40383	.3082185	.0217906	1.497869	.1837426	.6539938
#2	11.61530	25.61391	.3081120	.0215051	1.512209	.1831552	.6540476
#3	11.59508	25.47125	.3091314	.0219976	1.533253	.1837205	.6523798

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.387480	.1003273	.0840379	.1524618	.9638624	2.063116	3.589615
Stddev	.051468	.0002139	.0001671	.0005090	.0016313	.016097	.014528
%RSD	.6136234	.2132265	.1988320	.3338435	.1692411	.7802139	.4047264
#1	8.329073	.1004360	.0842264	.1521982	.9620880	2.044630	3.597118
#2	8.407182	.1000809	.0839792	.1530485	.9642021	2.070689	3.598857
#3	8.426187	.1004651	.0839081	.1521386	.9652970	2.074030	3.572869

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-01MSDLX5 Acquired: 12/23/2024 16:15:11 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4326906	.2296706	-.010102
Stddev	.0043586	.0009747	.000511
%RSD	1.007317	.4243903	5.060994
#1	.4294928	.2285469	-.009513
#2	.4376552	.2302868	-.010430
#3	.4309238	.2301782	-.010364

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2888.652	65690.21	13752.86	1975.051	4085.655
Stddev	1.847	91.50	26.68	6.003	1.552
%RSD	.0639431	.1392853	.1939798	.3039359	.0379885
#1	2890.008	65789.93	13751.50	1975.020	4087.433
#2	2886.548	65610.13	13726.88	1969.064	4084.571
#3	2889.399	65670.56	13780.19	1981.069	4084.960

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-01MSDDLX5 Acquired: 12/23/2024 16:19:16 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1809166	.4102732	.5726948	.3810220	.1648690	48.15463	1.631287
Stddev	.0045688	.0076663	.0012864	.0034902	.0023410	.05104	.006501
%RSD	2.525351	1.868594	.2246229	.9160099	1.419889	.1059974	.3985250
#1	.1756847	.4158613	.5718994	.3842857	.1643269	48.12326	1.631369
#2	.1829456	.4015334	.5720060	.3773426	.1674335	48.12711	1.637747
#3	.1841194	.4134250	.5741789	.3814377	.1628467	48.21353	1.624746

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0375087	.0487775	10.00241	.1745918	.1272321	.2516835	120.2108
Stddev	.0002619	.0001405	.01643	.0005658	.0001046	.0006539	.1598
%RSD	.6981911	.2881179	.1642411	.3240822	.0821867	.2598184	.1329747
#1	.0372178	.0488031	9.98398	.1750783	.1271893	.2524173	120.0273
#2	.0375825	.0486258	10.01552	.1739709	.1271557	.2514708	120.3201
#3	.0377257	.0489034	10.00772	.1747263	.1273513	.2511624	120.2850

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.47662	25.17485	.3057266	.0213899	1.491928	.1816113	.6506971
Stddev	.02969	.06260	.0003892	.0002575	.013959	.0011022	.0019239
%RSD	.2587136	.2486602	.1272980	1.203724	.9356475	.6069242	.2956595
#1	11.45105	25.11389	.3052914	.0212226	1.478937	.1806386	.6494195
#2	11.50918	25.17169	.3060412	.0216864	1.506686	.1828085	.6529097
#3	11.46964	25.23897	.3058472	.0212608	1.490160	.1813866	.6497620

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.283173	.0974779	.0830553	.1506577	.9317597	1.791832	3.557702
Stddev	.006900	.0003443	.0002278	.0005832	.0025245	.006243	.019713
%RSD	.0832983	.3531813	.2743279	.3870754	.2709428	.3484019	.5540932
#1	8.290857	.0970885	.0832332	.1503294	.9305258	1.791474	3.554522
#2	8.277509	.0976034	.0831341	.1503126	.9346639	1.785776	3.539772
#3	8.281153	.0977418	.0827985	.1513310	.9300896	1.798247	3.578811

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-01MSDDLX5 Acquired: 12/23/2024 16:19:16 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4266610	.2266308	-.009487
Stddev	.0033281	.0007011	.000437
%RSD	.7800358	.3093453	4.601820
#1	.4304000	.2265782	-.009256
#2	.4255603	.2273568	-.009215
#3	.4240227	.2259576	-.009991

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2905.305	65867.41	13756.92	1979.731	4099.478
Stddev	5.833	73.31	17.27	4.199	3.842
%RSD	.2007743	.1113067	.1255357	.2120917	.0937314
#1	2899.697	65898.09	13775.15	1984.196	4095.174
#2	2904.878	65920.40	13740.80	1979.133	4102.563
#3	2911.340	65783.74	13754.82	1975.863	4100.699

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-01ADLX5 Acquired: 12/23/2024 16:23:21 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1830964	.4243507	.5813450	.3875290	.1653644	48.77893	1.621712
Stddev	.0015516	.0019791	.0007817	.0024776	.0019776	.05860	.007263
%RSD	.8474282	.4663702	.1344570	.6393388	1.195909	.1201356	.4478594
#1	.1813171	.4223011	.5810523	.3882211	.1632762	48.76826	1.615086
#2	.1841677	.4245004	.5807519	.3847789	.1672087	48.84213	1.629477
#3	.1838046	.4262507	.5822307	.3895869	.1656084	48.72640	1.620575

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0381330	.0494223	10.07278	.1765159	.1284895	.2547303	120.9412
Stddev	.0001431	.0002731	.02166	.0007818	.0001520	.0004362	.4811
%RSD	.3752815	.5525862	.2150619	.4428975	.1182957	.1712430	.3977747
#1	.0382973	.0492616	10.05929	.1759572	.1283460	.2546601	120.4204
#2	.0380658	.0492676	10.09777	.1761812	.1284739	.2543335	121.0342
#3	.0380358	.0497376	10.06129	.1774093	.1286488	.2551974	121.3689

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	11.57372	25.45808	.3097169	.0215462	1.456834	.1824975	.6559674
Stddev	.04749	.06910	.0011416	.0001451	.004801	.0022867	.0029737
%RSD	.4102862	.2714396	.3685905	.6734945	.3295641	1.253009	.4533268
#1	11.51939	25.37832	.3089855	.0214290	1.451867	.1820351	.6580261
#2	11.60731	25.49999	.3091328	.0215011	1.461450	.1849801	.6525581
#3	11.59446	25.49592	.3110323	.0217085	1.457184	.1804774	.6573180

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	8.258299	.0980581	.0831363	.1527325	.9457459	1.923473	3.601410
Stddev	.030122	.0003644	.0001635	.0012077	.0037196	.008927	.008771
%RSD	.3647430	.3716577	.1966732	.7907545	.3932972	.4641173	.2435549
#1	8.232201	.0984685	.0830531	.1528152	.9429962	1.913721	3.595280
#2	8.291260	.0977723	.0830312	.1538967	.9499781	1.925454	3.597492
#3	8.251435	.0979336	.0833247	.1514855	.9442633	1.931243	3.611457

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: P5355-01ADLX5 Acquired: 12/23/2024 16:23:21 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	.4433578	.2275087	-.010571
Stddev	.0039178	.0008463	.000350
%RSD	.8836772	.3719804	3.309880
#1	.4468219	.2275849	-.010361
#2	.4391059	.2283143	-.010377
#3	.4441456	.2266269	-.010975

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2886.599	65788.21	13623.63	1994.730	4063.864
Stddev	2.324	102.77	13.13	5.539	7.080
%RSD	.0805147	.1562097	.0963900	.2776671	.1742287
#1	2884.756	65840.96	13627.45	1997.421	4063.444
#2	2889.210	65853.88	13609.01	1998.409	4071.145
#3	2885.830	65669.77	13634.42	1988.360	4057.003

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: LR1 Acquired: 12/23/2024 16:27:31 Type: Unk
Method: NON EPA-6010-200.7(v2549) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0004189	.1083534	-.013516	-.248959	-.012853	1851.127	.0041178
Stddev	.0020751	.0073493	.004755	.022604	.003298	10.032	.0010008
%RSD	495.3617	6.782724	35.18353	9.079363	25.66275	.5419238	24.30451
#1	-.001966	.1044007	-.012680	-.258093	-.009797	1840.235	.0052320
#2	.001412	.1168332	-.009234	-.223218	-.016349	1859.988	.0038267
#3	.001811	.1038264	-.018634	-.265568	-.012413	1853.158	.0032949

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0087282	.1617458	1919.202	-.005019	.0422196	.5704173	909.0097
Stddev	.0000616	.0002065	6.030	.000936	.0008178	.0093916	5.8207
%RSD	.7052282	.1276652	.3142105	18.64146	1.937062	1.646452	.6403368
#1	.0087426	.1615088	1923.744	-.004013	.0413218	.5710048	910.7427
#2	.0087813	.1618420	1921.502	-.005181	.0424151	.5607457	913.7671
#3	.0086608	.1618866	1912.360	-.005863	.0429220	.5795014	902.5193

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.084445	1947.346	.0244192	-.014707	1922.657	.0440897	.2418941
Stddev	.000976	1.998	.0006340	.000792	6.550	.0013465	.0009886
%RSD	1.156325	.1026235	2.596409	5.387816	.3406777	3.053963	.4086730
#1	-.083589	1948.072	.0247360	-.015508	1929.674	.0449679	.2412870
#2	-.084238	1948.879	.0248324	-.013924	1921.594	.0447616	.2430348
#3	-.085508	1945.085	.0236892	-.014688	1916.704	.0425394	.2413604

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	1417.297	-.003621	-.017193	.0199129	-.042403	.1212643	.0971414
Stddev	.514	.011343	.000746	.0015890	.000593	.0117252	.0144671
%RSD	.0362688	313.2699	4.340706	7.979878	1.398282	9.669148	14.89278
#1	1417.870	.004305	-.016333	.0211377	-.041754	.1112689	.1138178
#2	1416.876	.001446	-.017575	.0181174	-.042917	.1183532	.0896516
#3	1417.146	-.016614	-.017672	.0204838	-.042538	.1341709	.0879548

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: LR1 Acquired: 12/23/2024 16:27:31 Type: Unk
Method: NON EPA-6010-200.7(v2549) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.213967	-.316093	-.897518
Stddev	.015647	.000811	.005786
%RSD	7.312827	.2566558	.6446402
#1	-.213398	-.316048	-.899326
#2	-.229891	-.316926	-.902184
#3	-.198612	-.315305	-.891044

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1579.676	37941.15	9861.666	1082.295	2159.505
Stddev	4.899	50.41	25.857	6.266	5.209
%RSD	.3101213	.1328560	.2621963	.5789249	.2412054
#1	1579.323	37888.10	9891.075	1075.120	2163.480
#2	1584.742	37946.94	9842.500	1086.686	2161.427
#3	1574.963	37988.41	9851.422	1085.080	2153.608

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: LR2 Acquired: 12/23/2024 16:32:28 Type: Unk
Method: NON EPA-6010-200.7(v2549) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0062920	-.018243	240.9870	.0110972	-.004063	.2764579
Stddev	.0027202	.001376	.7781	.0020918	.001761	.1213782
%RSD	43.23258	7.541724	.3228824	18.85010	43.34871	43.90479
#1	.0092724	-.017266	241.6296	.0127551	-.004182	.4100812
#2	.0056604	-.017647	241.2094	.0117895	-.005762	.2462698
#3	.0039431	-.019816	240.1218	.0087470	-.002245	.1730226

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	^F *****	-.002031	-.007692	.6832963	.0159006	-.038092
Stddev	-----	.000006	.000090	.1574849	.0001453	.000221
%RSD	-----	.2853818	1.170394	23.04783	.9139358	.5812839
#1	^ -----	-.002037	-.007591	.8556923	.0157350	-.038142
#2	^ -----	-.002026	-.007763	.6472103	.0160069	-.038284
#3	^ -----	-.002029	-.007722	.5469862	.0159600	-.037850

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 311.5135	.1267931	41.70397	.2516574	48.54567	.0047339
Stddev	.9160	.0680376	.16081	.1562188	.15666	.0002468
%RSD	.2940604	53.66032	.3855908	62.07598	.3227029	5.214323
#1	312.1669	.2006890	41.69375	.4249911	48.68333	.0044502
#2	310.4664	.1129460	41.86964	.2082441	48.57847	.0048992
#3	311.9072	.0667442	41.54851	.1217369	48.37521	.0048524

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.6666898	-.014932	F 22.08494	.5267514	.0013773	-.006849
Stddev	.1329476	.001338	.11465	.0992419	.0001531	.000459
%RSD	19.94144	8.959667	.5191235	18.84036	11.11867	6.706864
#1	.8119736	-.014206	22.21712	.6370624	.0015369	-.006758
#2	.6369958	-.016475	22.01245	.4984765	.0013633	-.007347
#3	.5511001	-.014113	22.02525	.4447153	.0012316	-.006442

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: LR2 Acquired: 12/23/2024 16:32:28 Type: Unk
Method: NON EPA-6010-200.7(v2549) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.005238	-.044516	.0037816	1.262692	-.028130	-.001121
Stddev	.000435	.000419	.0014562	.013700	.003364	.000443
%RSD	8.309155	.9414391	38.50802	1.085007	11.95958	39.52328
#1	-.005679	-.044360	.0032129	1.250219	-.024281	-.001564
#2	-.005227	-.044197	.0026955	1.260502	-.030507	-.001123
#3	-.004808	-.044991	.0054363	1.277356	-.029603	-.000677

Elem	Sr4077
Units	ppm
Avg	.0019534
Stddev	.0000608
%RSD	3.112360
#1	.0018839
#2	.0019799
#3	.0019965

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2331.551	61298.63	12946.51	1751.527	4059.418
Stddev	14.024	24.14	51.91	.303	13.884
%RSD	.6015038	.0393867	.4009542	.0173134	.3420316
#1	2342.204	61272.04	12949.34	1751.330	4074.112
#2	2336.786	61319.19	12893.25	1751.375	4057.627
#3	2315.662	61304.65	12996.96	1751.876	4046.517

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: PB165733TB Acquired: 12/23/2024 16:36:34 Type: Unk
Method: NON EPA-6010-200.7(v2550) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	-.006474	-.005393	.0081410	.0041655	-.000165	.0924088
Stddev	.001706	.001236	.0034181	.0006620	.001239	.0188868
%RSD	26.35693	22.92412	41.98604	15.89363	749.2844	20.43827
#1	-.004879	-.005830	.0079261	.0046211	.000298	.1139124
#2	-.008273	-.003998	.0048354	.0044693	-.001570	.0848041
#3	-.006270	-.006352	.0116614	.0034061	.000776	.0785098

Elem	Ba4934	Be2348	Cd2265	Ca3736	Cr2677	Co2286
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0032703	-.000044	-.000194	.0899460	.0007693	-.000309
Stddev	.0049980	.000020	.000033	.0131262	.0000463	.000104
%RSD	152.8278	44.07726	16.84705	14.59345	6.022849	33.52664
#1	.0088753	-.000067	-.000228	.1034682	.0007455	-.000224
#2	.0016584	-.000031	-.000163	.0891143	.0007396	-.000279
#3	-.000723	-.000035	-.000190	.0772553	.0008226	-.000425

Elem	Cu2247	Fe2404	Mn2576	Mg2790	Ni2316	Ag3280
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0091732	.0831049	.0095849	.0556820	.0024885	.0009868
Stddev	.0039157	.0159079	.0025518	.0177935	.0008932	.0001486
%RSD	42.68607	19.14190	26.62327	31.95550	35.89070	15.05719
#1	.0071664	.1012689	.0124478	.0762245	.0022561	.0008361
#2	.0066677	.0763920	.0087571	.0450719	.0017346	.0009911
#3	.0136855	.0716539	.0075498	.0457498	.0034749	.0011332

Elem	Na5895	V_2924	Zn2138	K_7664	B_2496	Mo2020
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	F 284.6169	.0000975	.0053611	.2008492	-.000201	.0001104
Stddev	.7862	.0008906	.0005314	.0380550	.000310	.0001398
%RSD	.2762460	913.7667	9.912729	18.94705	154.5320	126.5659
#1	283.8231	.0000106	.0059440	.2436237	-.000508	.0001792
#2	285.3954	.0010283	.0049035	.1881760	.000113	-.000050
#3	284.6323	-.000746	.0052359	.1707477	-.000207	.000202

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: PB165733TB Acquired: 12/23/2024 16:36:34 Type: Unk
Method: NON EPA-6010-200.7(v2550) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: Custom ID2: Custom ID3:
Comment:

Elem	Sn1899	Ti3361	Si2881	P_1774	S_1820	Li6707
Units	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0009794	.0010627	.0384117	.0115053	F .0643750	-.006451
Stddev	.0008112	.0002572	.0027677	.0022583	.0047629	.000548
%RSD	82.82363	24.20258	7.205277	19.62811	7.398663	8.487316
#1	.0000893	.0011314	.0356529	.0102272	.0669999	-.006113
#2	.0011719	.0012785	.0383941	.0141128	.0672480	-.006158
#3	.0016770	.0007781	.0411882	.0101760	.0588772	-.007083

Elem	Sr4077
Units	ppm
Avg	-.000053
Stddev	.000014
%RSD	26.22311
#1	-.000070
#2	-.000044
#3	-.000046

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2538.318	56997.76	12311.29	1739.026	3835.844
Stddev	5.096	22.00	92.82	1.232	4.020
%RSD	.2007775	.0385943	.7539229	.0708597	.1047914
#1	2534.394	56978.30	12405.55	1737.663	3833.688
#2	2544.078	56993.35	12308.33	1740.060	3840.481
#3	2536.481	57021.63	12219.99	1739.356	3833.362

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: CCV06 Acquired: 12/23/2024 16:54:37 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem 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	5.354328	5.270296	5.025637	5.462373	5.440392	10.33987	10.06312
Stddev	.009707	.056495	.005802	.015435	.013749	.03524	.04201
%RSD	.1812911	1.071960	.1154531	.2825700	.2527214	.3408512	.4175094
#1	5.345559	5.292699	5.029011	5.448836	5.428944	10.30030	10.02662
#2	5.352667	5.312155	5.018937	5.459101	5.436589	10.35143	10.10905
#3	5.364758	5.206035	5.028963	5.479181	5.455642	10.36788	10.05368

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.2425152	2.537690	24.53011	1.036304	2.541297	1.346081	5.221849
Stddev	.0005977	.004959	.06947	.005455	.004380	.001554	.005597
%RSD	.2464495	.1954116	.2832121	.5263497	.1723706	.1154157	.1071869
#1	.2422168	2.537838	24.45409	1.033487	2.540885	1.344304	5.217314
#2	.2421255	2.532659	24.54597	1.032834	2.537137	1.347182	5.220130
#3	.2432033	2.542573	24.59029	1.042591	2.545868	1.346757	5.228105

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	2.431776	24.17160	2.557230	1.282194	24.73932	2.536180	2.338966
Stddev	.004791	.06031	.004995	.005416	.08989	.004209	.008885
%RSD	.1970000	.2495130	.1953359	.4224372	.3633506	.1659592	.3798836
#1	2.429878	24.12876	2.558445	1.281662	24.82029	2.531344	2.335560
#2	2.437225	24.14546	2.551739	1.277062	24.75507	2.538182	2.332286
#3	2.428225	24.24057	2.561505	1.287856	24.64259	2.539014	2.349050

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	26.55279	4.773409	5.406974	5.077435	5.006414	5.360837	4.975482
Stddev	.04590	.007248	.006723	.007780	.006692	.040362	.001979
%RSD	.1728512	.1518316	.1243356	.1532278	.1336715	.7529117	.0397682
#1	26.52078	4.768302	5.399339	5.084662	5.000290	5.321726	4.973512
#2	26.53220	4.770221	5.409575	5.069200	5.013557	5.358441	4.977469
#3	26.60537	4.781704	5.412008	5.078442	5.005395	5.402344	4.975464

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: CCV06 Acquired: 12/23/2024 16:54:37 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCV06 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	5.033577	5.009135	5.124944
Stddev	.004347	.009106	.048428
%RSD	.0863599	.1817931	.9449390
#1	5.038578	5.005611	5.079168
#2	5.030701	5.019476	5.175647
#3	5.031452	5.002317	5.120018

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2649.975	59134.60	11359.96	1821.181	3954.612
Stddev	4.441	201.39	4.86	5.737	6.920
%RSD	.1675830	.3405677	.0427992	.3150283	.1749928
#1	2653.965	59157.86	11365.57	1827.511	3956.158
#2	2650.769	59323.36	11357.00	1819.707	3960.628
#3	2645.190	58922.60	11357.30	1816.324	3947.049

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: CCB06 Acquired: 12/23/2024 16:58:48 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	As1890	Tl1908	Pb2203	Se1960	Sb2068	Al3961	Ba4934
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0001387	-.000472	-.000341	.0002891	-.001627	.0056701	-.006458
Stddev	.0025497	.000848	.000422	.0019770	.001346	.0025154	.000289
%RSD	1838.535	179.6179	123.5002	683.7423	82.74577	44.36202	4.481471
#1	.0009838	-.000884	-.000407	.0025558	-.001683	.0041087	-.006754
#2	-.002726	.000503	.000109	-.001079	-.002944	.0043297	-.006176
#3	.002159	-.001036	-.000727	-.000609	-.000254	.0085718	-.006445

Elem	Be2348	Cd2265	Ca3736	Cr2677	Co2286	Cu2247	Fe2404
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000471	.0000839	.0099015	-.000220	-.000059	-.000072	.0019901
Stddev	.0000516	.0000831	.0024546	.000230	.000119	.000628	.0017406
%RSD	109.6538	98.97254	24.79016	104.8752	202.7760	877.4744	87.46711
#1	-.000004	.0001517	.0104640	-.000247	.000005	-.000361	.0022929
#2	.000099	-.000009	.0072145	.000023	-.000197	.000649	.0035594
#3	.000046	.000109	.0120260	-.000435	.000015	-.000503	.0001179

Elem	Mn2576	Mg2790	Ni2316	Ag3280	Na5895	V_2924	Zn2138
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.0000878	-.001030	.0001744	.0010677	.0796915	.0010087	-.000186
Stddev	.0000645	.004212	.0003125	.0002993	.0241840	.0007761	.000154
%RSD	73.46958	408.9925	179.1883	28.02911	30.34699	76.93914	82.87223
#1	.0001599	.001368	.0005330	.0013291	.0560129	.0002282	-.000030
#2	.0000355	.001436	.0000297	.0011327	.0787105	.0017803	-.000189
#3	.0000681	-.005893	-.000040	.0007413	.1043510	.0010175	-.000337

Elem	K_7664	B_2496	Mo2020	Sn1899	Ti3361	Si2881	P_1774
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
Avg	.1361565	.0060899	.0006950	-.000181	.0011218	.0083085	-.001546
Stddev	.0124392	.0001505	.0002797	.000313	.0000607	.0032109	.001056
%RSD	9.135925	2.470727	40.24244	173.5168	5.411908	38.64663	68.30619
#1	.1218838	.0061487	.0009820	.000128	.0011779	.0110762	-.002693
#2	.1418961	.0062021	.0004232	-.000171	.0011302	.0090612	-.000616
#3	.1446895	.0059189	.0006799	-.000499	.0010574	.0047880	-.001328

Reviewed By:kareem
On:12/27/2024
11:00:25 AM
Inst Id :P4
LB :LB134066

Sample Name: CCB06 Acquired: 12/23/2024 16:58:48 Type: Unk
Method: NON EPA-6010-200.7(v2459) Mode: CONC Corr. Factor: 1.000000
User: Kareem Custom ID1: CCB06 Custom ID2: Custom ID3:
Comment:

Elem	S_1820	Li6707	Sr4077
Units	ppm	ppm	ppm
Avg	-.000545	-.003664	.0004225
Stddev	.002150	.000835	.0001164
%RSD	394.2080	22.78604	27.54295
#1	.000836	-.003370	.0005322
#2	.000550	-.003017	.0004347
#3	-.003022	-.004607	.0003005

Int. Std.	Y_2243	Y_3600	Y_3710	Y_2243	In2306
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2816.552	62766.96	12145.25	1943.606	4532.700
Stddev	.494	82.66	22.92	9.387	7.122
%RSD	.0175531	.1316910	.1887267	.4829428	.1571277
#1	2817.084	62671.54	12118.99	1932.858	4524.881
#2	2816.106	62816.59	12161.19	1947.765	4534.404
#3	2816.467	62812.75	12155.58	1950.195	4538.816

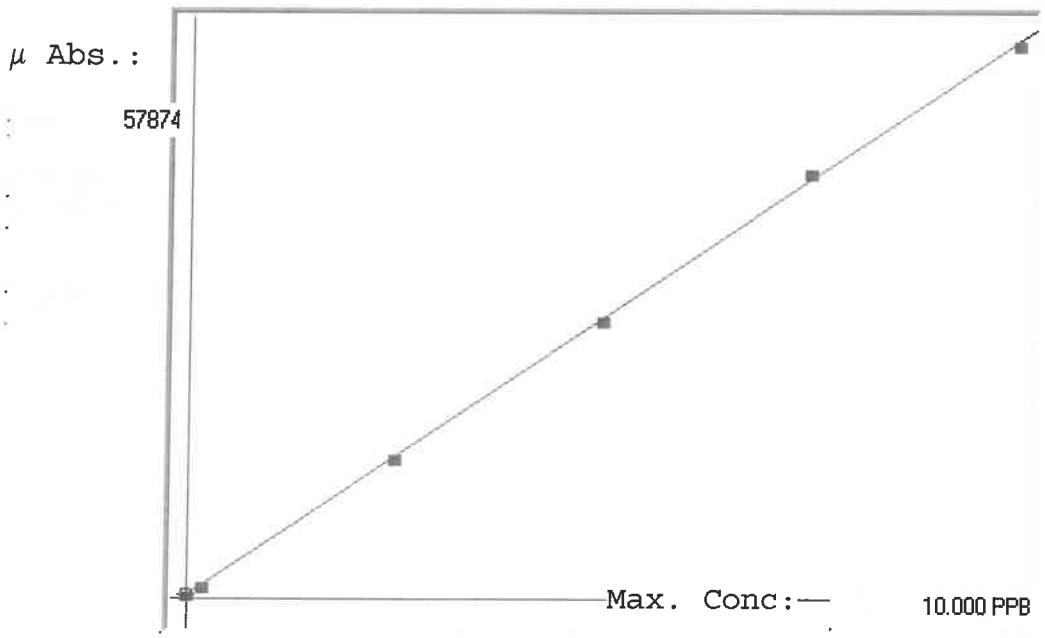
Reviewed By:mohan
On:12/18/2024
10:30:55 PM
Inst Id :CV1
LB :LB133991

LB133991

7471B

INSTRUMENT ID: CV2

Linear



A= 0.0000e+000

B= 1.7256e-004

C= -5.9565e-002

Rho= 0.9998573

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	0.030	0.030	520	0.000	520				
0.2	0.200	0.162	-0.038	1283	0.0 %	1283				
2.5	2.500	2.496	-0.004	14811	0.0 %	14811				
5.0	5.000	4.965	-0.035	29118	0.0 %	29118				
7.5	7.500	7.620	0.120	44504	0.0 %	44504				
10.0	10.000	9.927	-0.073	57874	0.0 %	57874				

%)

-19

0

-1

2

-1

Reviewed By:mohan
On:12/18/2024
10:30:55 PM
Inst Id :CV1
LB :LB133991

LB133991 INSTRUMENT ID : CV1

Method: 7471B Operator: Admin Date of Analysis: 18 Dec 2024 13:15:54

Sample ID	Extended ID	µ Abs.	Conc.	Stnd Conc	Method	Units	Date	Type	Type
0.0 - 1	[illegible]	520	-	0.0000	7471B	PPB	18 Dec 2024 13:19:48	S	Std
0.2 - 1	[illegible]	1283	-	0.2000	7471B	PPB	18 Dec 2024 13:22:05	S	Std
2.5 - 1	[illegible]	14811	-	2.5000	7471B	PPB	18 Dec 2024 13:24:22	S	Std
5.0 - 1	[illegible]	29118	-	5.0000	7471B	PPB	18 Dec 2024 13:26:39	S	Std
7.5 - 1	[illegible]	44504	-	7.5000	7471B	PPB	18 Dec 2024 13:28:57	S	Std
10.0 - 1	[illegible]	57874	-	10.0000	7471B	PPB	18 Dec 2024 13:31:16	S	Std
ICV24 - 1	ICV24	23822	4.0511		7471B	PPB	18 Dec 2024 13:36:51	U	SMPL
ICB24 - 1	ICB24	287	-0.0100		7471B	PPB	18 Dec 2024 13:39:06	U	SMPL
CCV42 - 1	CCV42	26606	4.5315		7471B	PPB	18 Dec 2024 13:41:24	U	SMPL
CCB42 - 1	CCB42	535	0.0328		7471B	PPB	18 Dec 2024 13:43:38	U	SMPL
CRA - 1	CRA	1289	0.1629		7471B	PPB	18 Dec 2024 13:45:58	U	SMPL
HighStd - 1	HighStd	58947	10.1121		7471B	PPB	18 Dec 2024 13:48:13	U	SMPL
ChkStd - 1	ChkStd	40999	7.0151		7471B	PPB	18 Dec 2024 13:50:28	U	SMPL
PB165728BL - 1	PBS	89	-0.0442		7471B	PPB	18 Dec 2024 13:52:49	U	SMPL
PB165728BS - 1	LCSS	20330	3.4485		7471B	PPB	18 Dec 2024 13:55:08	U	SMPL
P5299-01 - 1	SB-01	10161	1.6938		7471B	PPB	18 Dec 2024 13:57:25	U	SMPL
P5299-02 - 1	SB-02	6996	1.1476		7471B	PPB	18 Dec 2024 13:59:43	U	SMPL
P5299-03 - 1	SB-01	7020	1.1518		7471B	PPB	18 Dec 2024 14:02:03	U	SMPL
P5299-04 - 1	SB-02	1808	0.2524		7471B	PPB	18 Dec 2024 14:04:22	U	SMPL
P5301-01 - 1	HR-01-121624	23554	4.0048		7471B	PPB	18 Dec 2024 14:06:39	U	SMPL
CCV43 - 1	CCV43	27689	4.7184		7471B	PPB	18 Dec 2024 14:08:55	U	SMPL
CCB43 - 1	CCB43	137	-0.0359		7471B	PPB	18 Dec 2024 14:11:13	U	SMPL
P5301-03 - 1	HR-04-121624	3057	0.4679		7471B	PPB	18 Dec 2024 14:13:31	U	SMPL
P5301-03DUP - 1	HR-04-121624DUP	2668	0.4008		7471B	PPB	18 Dec 2024 14:25:15	U	SMPL
P5301-03MS - 1	HR-04-121624MS	20839	3.5363		7471B	PPB	18 Dec 2024 14:27:30	U	SMPL
P5301-03MSD - 1	HR-04-121624MSD	20533	3.4835		7471B	PPB	18 Dec 2024 14:29:46	U	SMPL
P5306-01 - 1	OU4-VSL-07-121224	969	0.1076		7471B	PPB	18 Dec 2024 14:32:05	U	SMPL
P5306-03 - 1	OU4-VSL-08-121224	377	0.0055		7471B	PPB	18 Dec 2024 14:34:24	U	SMPL
P5306-05 - 1	OU4-VSL-09-121224	540	0.0336		7471B	PPB	18 Dec 2024 14:36:41	U	SMPL
P5306-07 - 1	OU4-VSL-10-121224	489	0.0248		7471B	PPB	18 Dec 2024 14:38:58	U	SMPL
P5306-09 - 1	OU4-VSL-11-121224	480	0.0233		7471B	PPB	18 Dec 2024 14:41:14	U	SMPL
P5306-11 - 1	OU4-VSL-12-121224	460	0.0198		7471B	PPB	18 Dec 2024 14:43:30	U	SMPL
CCV44 - 1	CCV44	26503	4.5137		7471B	PPB	18 Dec 2024 14:45:45	U	SMPL
CCB44 - 1	CCB44	125	-0.0380		7471B	PPB	18 Dec 2024 14:48:01	U	SMPL
P5306-13 - 1	OU4-VSL-13-121224	1044	0.1206		7471B	PPB	18 Dec 2024 14:50:19	U	SMPL
P5306-15 - 1	OU4-VSL-14-121224	433	0.0152		7471B	PPB	18 Dec 2024 14:52:35	U	SMPL
P5312-01 - 1	SOIL-VNJ-222	1155	0.1397		7471B	PPB	18 Dec 2024 14:54:50	U	SMPL
P5312-03 - 1	CONCRETE-VNJ-222	536	0.0329		7471B	PPB	18 Dec 2024 14:57:06	U	SMPL
P5301-03LX5 - 1		664	0.0550		7471B	PPB	18 Dec 2024 15:03:03	U	SMPL
P5301-03A - 1		22572	3.8354		7471B	PPB	18 Dec 2024 15:05:19	U	SMPL
CCV45 - 1	CCV45	28352	4.8328		7471B	PPB	18 Dec 2024 15:07:36	U	SMPL
CCB45 - 1	CCB45	197	-0.0256		7471B	PPB	18 Dec 2024 15:09:56	U	SMPL

Alliance TECHNICAL GROUP

Soil/Sludge Metals Preparation Sheet

PB165698

SOP ID : M3050B-Digestion-20

SDG No : N/A

Matrix : SOIL

Pippete ID: ICP A

Balance ID : M SC-2

Filter paper ID : N/A

pH Strip ID : N/A

Hood ID : #3

Block ID: 1. HOT BLOC K #3 2. N/A

Start Digest Date: 12/17/2024 **Time :** 14:00 **Temp :** 96 °C

End Digest Date: 12/17/2024 **Time :** 16:10 **Temp :** 96 °C

Digestion tube ID: M6054

Block thermometer ID: MET-DIG. # 3

Dig Technician Signature: S129.

Supervisor Signature: SG

Temp : 1. 96°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
LFS-1	1.00	M6000
LFS-2	1.00	M6009
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
1:1 HNO3	10.00	MP83498
Conc. HNO3	5.00	M6126
30% H2O2	3.00	M6125
Conc. HCL	10.00	M6121
PTFE Boiling Stones	N/A	M5585
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#3 CELL #33 Temp: 96 C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
12/17/24 16:50	S129. met digestion	SG Metals Lab
	Preparation Group	Analysis Group

Alliance TECHNICAL GROUP

Soil/Sludge Metals Preparation Sheet

PB165698

Lab Sample ID	Client Sample ID	pH	Initial Weight (g)	Final Vol (ml)	Color Before	Color After	Texture	Artifact	Comment	Prep Pos
P5301-01	HR-01-121624	N/A	2.24	100	Brown	Yellow	Medium	N/A	N/A	1
P5301-03	HR-04-121624	N/A	2.13	100	Brown	Yellow	Medium	N/A	N/A	2
P5306-01	OU4-VSL-07-121224	N/A	2.20	100	Black	Yellow	Medium	N/A	N/A	3
P5306-03	OU4-VSL-08-121224	N/A	2.06	100	Black	Yellow	Medium	N/A	N/A	4
P5306-05	OU4-VSL-09-121224	N/A	2.35	100	Black	Yellow	Medium	N/A	N/A	5
P5306-07	OU4-VSL-10-121224	N/A	2.21	100	Black	Yellow	Medium	N/A	N/A	6
P5306-09	OU4-VSL-11-121224	N/A	2.09	100	Black	Yellow	Medium	N/A	N/A	7
P5306-11	OU4-VSL-12-121224	N/A	2.44	100	Black	Yellow	Medium	N/A	N/A	8
P5306-13	OU4-VSL-13-121224	N/A	2.37	100	Black	Yellow	Medium	N/A	N/A	9
P5306-15	OU4-VSL-14-121224	N/A	2.06	100	Black	Yellow	Medium	N/A	N/A	10
P5306-17	OU4-VSL-06R-121224	N/A	2.41	100	Black	Yellow	Medium	N/A	N/A	11
P5306-17MS	OU4-VSL-06R-121224MS	N/A	2.18	100	Black	Yellow	Medium	N/A	M6000,M6009	13
P5306-17MSD	OU4-VSL-06R-121224MSD	N/A	2.15	100	Black	Yellow	Medium	N/A	M6000,M6009	14
P5306-17DUP	OU4-VSL-06R-121224DUP	N/A	2.17	100	Black	Yellow	Medium	N/A	N/A	12
PB165698BL	PBS698	N/A	2.09	100	Brown	Yellow	Medium	N/A	N/A	15
PB165698BS	LCS698	N/A	2.09	100	Brown	Yellow	Medium	N/A	M6000,M6009	16

WORKLIST(Hardcopy Internal Chain)

WorkList Name : PB165698 **WorkList ID :** 186400 **Department :** Digestion **Date :** 12-17-2024 13:10:23

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5301-01	HR-01-121624	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG05	L41	12/16/2024	6010D
P5301-03	HR-04-121624	Solid	Metals ICP-TAL	Cool 4 deg C	PSEG05	L41	12/16/2024	6010D
P5306-01	OU4-VSL-07-121224	Solid	Metals ICP-TAL	Cool 4 deg C	NOBI03	L41	12/12/2024	6010D
P5306-03	OU4-VSL-08-121224	Solid	Metals ICP-TAL	Cool 4 deg C	NOBI03	L41	12/12/2024	6010D
P5306-05	OU4-VSL-09-121224	Solid	Metals ICP-TAL	Cool 4 deg C	NOBI03	L41	12/12/2024	6010D
P5306-07	OU4-VSL-10-121224	Solid	Metals ICP-TAL	Cool 4 deg C	NOBI03	L41	12/12/2024	6010D
P5306-09	OU4-VSL-11-121224	Solid	Metals ICP-TAL	Cool 4 deg C	NOBI03	L41	12/12/2024	6010D
P5306-11	OU4-VSL-12-121224	Solid	Metals ICP-TAL	Cool 4 deg C	NOBI03	L41	12/12/2024	6010D
P5306-13	OU4-VSL-13-121224	Solid	Metals ICP-TAL	Cool 4 deg C	NOBI03	L41	12/12/2024	6010D
P5306-15	OU4-VSL-14-121224	Solid	Metals ICP-TAL	Cool 4 deg C	NOBI03	L41	12/12/2024	6010D
P5306-17	OU4-VSL-06R-121224	Solid	Metals Group6	Cool 4 deg C	NOBI03	L61	12/12/2024	6010D

Date/Time 12/17/24 13:40
Raw Sample Received by: SRG. met digestion
Raw Sample Relinquished by: CP SM

Date/Time 12/27/24 14:40
Raw Sample Received by: CP SM
Raw Sample Relinquished by: SRG. met digestion

Alliance TECHNICAL GROUP

Soil/Sludge Mercury Preparation Sheet

PB165728

SOP ID : M7471B-Mercury-18

SDG No : N/A

Matrix : SOIL

Pippete ID: HG A

Balance ID : M SC-3

Filter paper ID : NA

pH Strip ID : NA

Hood ID : #1

Block ID: 1. HG HOT BLOCK#3 2. N/A

Start Digest Date: 12/18/2024 **Time :** 08:35 **Temp :** 94 °C

End Digest Date: 12/18/2024 **Time :** 09:05 **Temp :** 94 °C

Digestion tube ID: M5595

Block thermometer ID: HG-DIG#3

Dig Technician Signature: MB

Supervisor Signature: MB

Temp : 1. 94°C 2. N/A

Standared Name	MLS USED	STD REF. # FROM LOG
ICV	30mL	MP83682
CCV	30mL	MP83684
CRA	30mL	MP83686
Blank Spike	0.48mL	MP83675
Matrix Spike	0.48mL	MP83675

Chemical Used	ML/SAMPLE USED	Lot Number
AQUA REGIA	1.5mL	MP83688
KMnO4 (5%)	4.5mL	MP83208
Hydroxylamine HCL (12%)	2.0mL	MP83210
PTFE Boiling Stones	----------	M4583
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	MP83676
0.05 ppb	S0.05	N/A	N/A
0.2 ppb	S0.2	30mL	MP83677
2.5 ppb	S2.5	30mL	MP83678
5.0 ppb	S5.0	30mL	MP83679
7.5 ppb	S7.5	30mL	MP83680
10.0 ppb	S10.0	30mL	MP83681
ICV	ICV	30mL	MP83682
ICB	ICB	30mL	MP83683
CCV	CCV	30mL	MP83684
CCB	CCB	30mL	MP83685
CRI	CRI	30mL	MP83686
CHK STD	CHK STD	30mL	MP83687

Extraction Conformance/Non-Conformance Comments:

N/A

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
12/18/24 @ 9:45	MB ~ Digest Lab	MB ~ Metals Lab
	Preparation Group	**Analysis Group**

Alliance TECHNICAL GROUP

Soil/Sludge Mercury Preparation Sheet

PB165728

Lab Sample ID	Client Sample ID	Initial Weight (g)	Final Vol (ml)	pH	Comment	Prep Pos
P5299-01	SB-01	0.60	35	NA	N/A	3-1
P5299-02	SB-02	0.50	35	NA	N/A	2
P5299-03	SB-01	0.59	35	NA	N/A	3
P5299-04	SB-02	0.51	35	NA	N/A	4
P5301-01	HR-01-121624	0.57	35	NA	N/A	5
P5301-03	HR-04-121624	0.52	35	NA	N/A	6
P5301-03DUP	HR-04-121624DUP	0.51	35	NA	N/A	7
P5301-03MS	HR-04-121624MS	0.55	35	NA	MP83675	8
P5301-03MSD	HR-04-121624MSD	0.56	35	NA	MP83675	9
P5306-01	OU4-VSL-07-121224	0.59	35	NA	N/A	10
P5306-03	OU4-VSL-08-121224	0.52	35	NA	N/A	11
P5306-05	OU4-VSL-09-121224	0.57	35	NA	N/A	12
P5306-07	OU4-VSL-10-121224	0.52	35	NA	N/A	13
P5306-09	OU4-VSL-11-121224	0.55	35	NA	N/A	14
P5306-11	OU4-VSL-12-121224	0.57	35	NA	N/A	15
P5306-13	OU4-VSL-13-121224	0.58	35	NA	N/A	16
P5306-15	OU4-VSL-14-121224	0.59	35	NA	N/A	17
P5312-01	SOIL-VNJ-222	0.55	35	NA	N/A	18
P5312-03	CONCRETE-VNJ-222	0.52	35	NA	N/A	19
PB165728BL	PBS728	0.52	35	NA	N/A	20
PB165728BS	LCS728	0.54	35	NA	MP83675	21

WORKLIST(Hardcopy Internal Chain)

WorkList Name : 121724_7471 **WorkList ID :** 186414 **Department :** Digestion **Date :** 12-17-2024 16:16:32

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
P5306-01	OU4-VSL-07-121224	Solid	Mercury	Cool 4 deg C	NOBI03	L41	12/12/2024	7471B
P5306-03	OU4-VSL-08-121224	Solid	Mercury	Cool 4 deg C	NOBI03	L41	12/12/2024	7471B
P5306-05	OU4-VSL-09-121224	Solid	Mercury	Cool 4 deg C	NOBI03	L41	12/12/2024	7471B
P5306-07	OU4-VSL-10-121224	Solid	Mercury	Cool 4 deg C	NOBI03	L41	12/12/2024	7471B
P5306-09	OU4-VSL-11-121224	Solid	Mercury	Cool 4 deg C	NOBI03	L41	12/12/2024	7471B
P5306-11	OU4-VSL-12-121224	Solid	Mercury	Cool 4 deg C	NOBI03	L41	12/12/2024	7471B
P5306-13	OU4-VSL-13-121224	Solid	Mercury	Cool 4 deg C	NOBI03	L41	12/12/2024	7471B
P5306-15	OU4-VSL-14-121224	Solid	Mercury	Cool 4 deg C	NOBI03	L41	12/12/2024	7471B
P5299-04	SB-02	Solid	Mercury	Cool 4 deg C	PORT06	L41	12/15/2024	7471B
P5312-01	SOIL-VNJ-222	Solid	Mercury	Cool 4 deg C	PSEG03	L61	12/17/2024	7471B
P5312-03	CONCRETE-VNJ-222	Solid	Mercury	Cool 4 deg C	PSEG03	L61	12/17/2024	7471B
P5301-01	HR-01-121624	Solid	Mercury	Cool 4 deg C	PSEG05	L41	12/16/2024	7471B
P5301-03	HR-04-121624	Solid	Mercury	Cool 4 deg C	PSEG05	L41	12/16/2024	7471B

Date/Time 12/18/24 @ 8:10

Raw Sample Received by: [illegible]

Raw Sample Relinquished by: [illegible]

Date/Time 12/18/24 @ 8:25

Raw Sample Received by: [illegible]

Raw Sample Relinquished by: [illegible]

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 12/18/2024

OVENTEMP IN Celsius(°C): 107
Time IN: 17:00
In Date: 12/17/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:12
Out Date: 12/18/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB133976

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
P5245-03	72-12016	1	1.15	8.37	9.52	8.99	93.7	
P5299-01	SB-01	2	1.15	8.40	9.55	7.74	78.5	
P5299-02	SB-02	3	1.16	8.70	9.86	7.73	75.5	
P5299-03	SB-01	33	1.13	8.61	9.74	7.05	68.8	
P5299-04	SB-02	4	1.15	8.75	9.9	8.08	79.2	
P5306-01	OU4-VSL-07-121224	5	1.16	8.52	9.68	8.9	90.8	
P5306-03	OU4-VSL-08-121224	6	1.17	8.73	9.9	9.1	90.8	
P5306-05	OU4-VSL-09-121224	7	1.19	8.45	9.64	8.8	90.1	
P5306-07	OU4-VSL-10-121224	8	1.15	8.65	9.8	9.37	95.0	
P5306-09	OU4-VSL-11-121224	9	1.11	8.77	9.88	9.32	93.6	
P5306-11	OU4-VSL-12-121224	10	1.12	8.65	9.77	8.97	90.8	
P5306-13	OU4-VSL-13-121224	11	1.13	8.72	9.85	8.98	90.0	
P5306-15	OU4-VSL-14-121224	12	1.18	8.46	9.64	9.29	95.9	
P5306-17	OU4-VSL-06R-121224	13	1.15	8.80	9.95	9.22	91.7	
P5307-01	1A-1B-1C-ROOF-2	14	1.00	1.00	2.00	2.00	100.0	caluk
P5307-02	2A-2B-2C-ROOF-2	15	1.00	1.00	2.00	2.00	100.0	caluk
P5307-03	3A-3B-3C-1907	16	1.00	1.00	2.00	2.00	100.0	caluk
P5307-04	4A-4B-4C-1907	17	1.00	1.00	2.00	2.00	100.0	caluk
P5307-05	5A-5B-5C-1907	18	1.00	1.00	2.00	2.00	100.0	caluk
P5307-06	6A-6B-6C-1952	19	1.00	1.00	2.00	2.00	100.0	caluk
P5307-07	1907-BLDG-GRAY	20	1.00	1.00	2.00	2.00	100.0	caluk
P5307-08	1952-BLDG	21	1.00	1.00	2.00	2.00	100.0	caluk
P5307-09	9A-9B-9C-1907	22	1.00	1.00	2.00	2.00	100.0	caluk
P5307-10	1907-BLDG-OFF-WHITE	23	1.00	1.00	2.00	2.00	100.0	caluk
P5307-11	11A-11B-11C-1952-BLDG	24	1.00	1.00	2.00	2.00	100.0	caluk
P5307-12	12A-12B-12C-1952	25	1.00	1.00	2.00	2.00	100.0	caluk
P5307-13	13A-13B-13C-1952	26	1.00	1.00	2.00	2.00	100.0	caluk
P5307-14	14A-14B-14C-1907	27	1.00	1.00	2.00	2.00	100.0	caluk

PERCENT SOLID

Supervisor: Iwona
Analyst: jignesh
Date: 12/18/2024

OVENTEMP IN Celsius(°C): 107
Time IN: 17:00
In Date: 12/17/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103
Time OUT: 08:12
Out Date: 12/18/2024
Weight Check 1.0g: 1.00
Weight Check 10g: 10.00
BalanceID: M SC-4
Thermometer ID: % SOLID- OVEN

QC: LB133976

Lab ID	Client SampleID	Dish #	Dish Wt(g) (A)	Sample Wt(g)	Dish + Sample Wt(g) (B)	Dish+Dry Sample Wt(g) (C)	% Solid	Comments
P5307-15	15A-15B-15C-ROOF-7	28	1.00	1.00	2.00	2.00	100.0	caluk
P5312-01	SOIL-VNJ-222	29	1.15	8.43	9.58	8.55	87.8	
P5312-02	SOIL-VNJ-222	30	1.12	8.66	9.78	9.35	95.0	
P5312-03	CONCRETE-VNJ-222	31	1.00	1.00	2.00	2.00	100.0	CONCRETE sample
P5312-04	CONCRETE-VNJ-222	32	1.00	1.00	2.00	2.00	100.0	CONCRETE sample

$$\% \text{ Solid} = \frac{(C-A) * 100}{(B-A)}$$

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

Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB133991

Review By	jaswal	Review On	12/18/2024 10:30:30 PM
Supervise By	mohan	Supervise On	12/18/2024 10:30:55 PM

STD. NAME	STD REF.#
ICAL Standard	MP83676,MP83677,MP83678,MP83679,MP83680,MP83681
ICV Standard	MP83682
CCV Standard	MP83684
ICSA Standard	
CRI Standard	MP83686
LCS Standard	
Chk Standard	MP83683,MP83685,MP83687,MP83689

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	12/18/24 13:19		Mohan	OK
2	S0.2	S0.2	CAL2	12/18/24 13:22		Mohan	OK
3	S2.5	S2.5	CAL3	12/18/24 13:24		Mohan	OK
4	S5	S5	CAL4	12/18/24 13:26		Mohan	OK
5	S7.5	S7.5	CAL5	12/18/24 13:28		Mohan	OK
6	S10	S10	CAL6	12/18/24 13:31		Mohan	OK
7	ICV24	ICV24	ICV	12/18/24 13:36		Mohan	OK
8	ICB24	ICB24	ICB	12/18/24 13:39		Mohan	OK
9	CCV42	CCV42	CCV	12/18/24 13:41		Mohan	OK
10	CCB42	CCB42	CCB	12/18/24 13:43		Mohan	OK
11	CRA	CRA	CRDL	12/18/24 13:45		Mohan	OK
12	HighStd	HighStd	HIGH STD	12/18/24 13:48		Mohan	OK
13	ChkStd	ChkStd	SAM	12/18/24 13:50		Mohan	OK
14	PB165728BL	PB165728BL	MB	12/18/24 13:52		Mohan	OK
15	PB165728BS	PB165728BS	LCS	12/18/24 13:55		Mohan	OK
16	P5299-01	SB-01	SAM	12/18/24 13:57		Mohan	OK
17	P5299-02	SB-02	SAM	12/18/24 13:59		Mohan	OK
18	P5299-03	SB-01	SAM	12/18/24 14:02		Mohan	OK

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Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB133991

Review By	jaswal	Review On	12/18/2024 10:30:30 PM
Supervise By	mohan	Supervise On	12/18/2024 10:30:55 PM

STD. NAME	STD REF.#
ICAL Standard	MP83676,MP83677,MP83678,MP83679,MP83680,MP83681
ICV Standard	MP83682
CCV Standard	MP83684
ICSA Standard	
CRI Standard	MP83686
LCS Standard	
Chk Standard	MP83683,MP83685,MP83687,MP83689

19	P5299-04	SB-02	SAM	12/18/24 14:04		Mohan	OK
20	P5301-01	HR-01-121624	SAM	12/18/24 14:06		Mohan	OK
21	CCV43	CCV43	CCV	12/18/24 14:08		Mohan	OK
22	CCB43	CCB43	CCB	12/18/24 14:11		Mohan	OK
23	P5301-03	HR-04-121624	SAM	12/18/24 14:13		Mohan	OK
24	P5301-03DUP	HR-04-121624DUP	DUP	12/18/24 14:25		Mohan	OK
25	P5301-03MS	HR-04-121624MS	MS	12/18/24 14:27		Mohan	OK
26	P5301-03MSD	HR-04-121624MSD	MSD	12/18/24 14:29		Mohan	OK
27	P5306-01	OU4-VSL-07-121224	SAM	12/18/24 14:32		Mohan	OK
28	P5306-03	OU4-VSL-08-121224	SAM	12/18/24 14:34		Mohan	OK
29	P5306-05	OU4-VSL-09-121224	SAM	12/18/24 14:36		Mohan	OK
30	P5306-07	OU4-VSL-10-121224	SAM	12/18/24 14:38		Mohan	OK
31	P5306-09	OU4-VSL-11-121224	SAM	12/18/24 14:41		Mohan	OK
32	P5306-11	OU4-VSL-12-121224	SAM	12/18/24 14:43		Mohan	OK
33	CCV44	CCV44	CCV	12/18/24 14:45		Mohan	OK
34	CCB44	CCB44	CCB	12/18/24 14:48		Mohan	OK
35	P5306-13	OU4-VSL-13-121224	SAM	12/18/24 14:50		Mohan	OK
36	P5306-15	OU4-VSL-14-121224	SAM	12/18/24 14:52		Mohan	OK
37	P5312-01	SOIL-VNJ-222	SAM	12/18/24 14:54		Mohan	OK
38	P5312-03	CONCRETE-VNJ-222	SAM	12/18/24 14:57		Mohan	OK

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Instrument ID: CV1

Daily Analysis Runlog For Sequence/QCBatch ID # LB133991

Review By	jaswal	Review On	12/18/2024 10:30:30 PM
Supervise By	mohan	Supervise On	12/18/2024 10:30:55 PM

STD. NAME	STD REF.#
ICAL Standard	MP83676,MP83677,MP83678,MP83679,MP83680,MP83681
ICV Standard	MP83682
CCV Standard	MP83684
ICSA Standard	
CRI Standard	MP83686
LCS Standard	
Chk Standard	MP83683,MP83685,MP83687,MP83689

39	P5301-03L	HR-04-121624L	SD	12/18/24 15:03		Mohan	OK
40	P5301-03A	HR-04-121624A	PS	12/18/24 15:05		Mohan	OK
41	CCV45	CCV45	CCV	12/18/24 15:07		Mohan	OK
42	CCB45	CCB45	CCB	12/18/24 15:09		Mohan	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134001

Review By	kareem	Review On	12/27/2024 11:04:21 AM
Supervise By	Mohan	Supervise On	12/31/2024 4:15:28 AM

STD. NAME	STD REF.#
ICAL Standard	MP83552 MP83553 MP83554 MP83555 MP83556 MP83558
ICV Standard	MP83559
CCV Standard	MP83562
ICSA Standard	MP83560 MP83561
CRI Standard	MP83558
LCS Standard	
Chk Standard	MP83565 MP83566

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	12/18/24 14:14		Kareem	OK
2	S1	S1	CAL2	12/18/24 14:19		Kareem	OK
3	S2	S2	CAL3	12/18/24 14:23		Kareem	OK
4	S3	S3	CAL4	12/18/24 14:27		Kareem	OK
5	S4	S4	CAL5	12/18/24 14:32		Kareem	OK
6	S5	S5	CAL6	12/18/24 14:36		Kareem	OK
7	ICV01	ICV01	ICV	12/18/24 14:40		Kareem	OK
8	LLICV01	LLICV01	LLICV	12/18/24 14:58		Kareem	OK
9	ICB01	ICB01	ICB	12/18/24 15:03		Kareem	OK
10	CRI01	CRI01	CRDL	12/18/24 15:07		Kareem	OK
11	ICSA01	ICSA01	ICSA	12/18/24 15:11		Kareem	OK
12	ICSAB01	ICSAB01	ICSAB	12/18/24 15:23		Kareem	OK
13	CCV01	CCV01	CCV	12/18/24 15:27		Kareem	OK
14	CCB01	CCB01	CCB	12/18/24 15:31		Kareem	OK
15	PB165714BL	PB165714BL	MB	12/18/24 15:36		Kareem	OK
16	PB165714BS	PB165714BS	LCS	12/18/24 15:40	0.1ML OF M6010 AND M6001 WERE ADDED TO 10ML OF SAMPLE	Kareem	OK
17	P5313-01	FMI109	SAM	12/18/24 15:44		Kareem	OK
18	P5313-01DUP	FMI109DUP	DUP	12/18/24 15:49		Kareem	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134001

Review By	kareem	Review On	12/27/2024 11:04:21 AM
Supervise By	Mohan	Supervise On	12/31/2024 4:15:28 AM

STD. NAME	STD REF.#
ICAL Standard	MP83552 MP83553 MP83554 MP83555 MP83556 MP83558
ICV Standard	MP83559
CCV Standard	MP83562
ICSA Standard	MP83560 MP83561
CRI Standard	MP83558
LCS Standard	
Chk Standard	MP83565 MP83566

19	P5313-01L	FMI109L	SD	12/18/24 15:53		Kareem	OK
20	P5313-01MS	FMI109MS	MS	12/18/24 15:57	0.1ML OF M6010 AND M6001 WERE ADDED TO 10ML OF SAMPLE	Kareem	OK
21	P5313-01MSD	FMI109MSD	MSD	12/18/24 16:02	0.1ML OF M6010 AND M6001 WERE ADDED TO 10ML OF SAMPLE	Kareem	OK
22	P5313-01A	FMI109A	PS	12/18/24 16:06	0.1ML OF M6010 AND M6001 WERE ADDED TO 10ML OF SAMPLE	Kareem	OK
23	CCV02	CCV02	CCV	12/18/24 16:10		Kareem	OK
24	CCB02	CCB02	CCB	12/18/24 16:14		Kareem	OK
25	PB165698BL	PB165698BL	MB	12/18/24 16:19		Kareem	OK
26	PB165698BS	PB165698BS	LCS	12/18/24 16:24	0.1ML OF M6010 AND M6001 WERE ADDED TO 10ML OF SAMPLE	Kareem	OK
27	P5301-01	HR-01-121624	SAM	12/18/24 16:28		Kareem	OK
28	P5301-03	HR-04-121624	SAM	12/18/24 16:32		Kareem	OK
29	P5306-01	OU4-VSL-07-121224	SAM	12/18/24 16:36		Kareem	OK
30	P5306-03	OU4-VSL-08-121224	SAM	12/18/24 16:40		Kareem	OK
31	P5306-05	OU4-VSL-09-121224	SAM	12/18/24 16:44		Kareem	OK
32	P5306-07	OU4-VSL-10-121224	SAM	12/18/24 16:49		Kareem	OK
33	P5306-09	OU4-VSL-11-121224	SAM	12/18/24 16:53		Kareem	OK
34	P5306-11	OU4-VSL-12-121224	SAM	12/18/24 16:57		Kareem	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134001

Review By	kareem	Review On	12/27/2024 11:04:21 AM
Supervise By	Mohan	Supervise On	12/31/2024 4:15:28 AM

STD. NAME	STD REF.#
ICAL Standard	MP83552 MP83553 MP83554 MP83555 MP83556 MP83558
ICV Standard	MP83559
CCV Standard	MP83562
ICSA Standard	MP83560 MP83561
CRI Standard	MP83558
LCS Standard	
Chk Standard	MP83565 MP83566

35	CCV03	CCV03	CCV	12/18/24 17:01		Kareem	OK
36	CCB03	CCB03	CCB	12/18/24 17:05		Kareem	OK
37	P5306-13	OU4-VSL-13-121224	SAM	12/18/24 17:10		Kareem	OK
38	P5306-15	OU4-VSL-14-121224	SAM	12/18/24 17:14		Kareem	OK
39	P5306-17	OU4-VSL-06R-12122	SAM	12/18/24 17:18	MS/MSD fail for more than parameters	Kareem	Not Ok
40	P5306-17DUP	OU4-VSL-06R-12122	DUP	12/18/24 17:22	MS/MSD fail for more than parameters	Kareem	Not Ok
41	P5306-17L	OU4-VSL-06R-12122	SD	12/18/24 17:26	MS/MSD fail for more than parameters	Kareem	Not Ok
42	P5306-17MS	OU4-VSL-06R-12122	MS	12/18/24 17:31	MS/MSD fail for more than parameters	Kareem	Not Ok
43	P5306-17MSD	OU4-VSL-06R-12122	MSD	12/18/24 17:35	MS/MSD fail for more than parameters	Kareem	Not Ok
44	P5306-17A	OU4-VSL-06R-12122	PS	12/18/24 17:39	MS/MSD fail for more than parameters	Kareem	Not Ok
45	CCV04	CCV04	CCV	12/18/24 17:43		Kareem	OK
46	CCB04	CCB04	CCB	12/18/24 17:47		Kareem	OK
47	LR1	LR1	HIGH STD	12/18/24 18:03		Kareem	OK
48	LR2	LR2	HIGH STD	12/18/24 18:08		Kareem	OK
49	CCV05	CCV05	CCV	12/18/24 18:33		Kareem	OK
50	CCB05	CCB05	CCB	12/18/24 18:37		Kareem	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134066

Review By	mohan	Review On	12/26/2024 10:44:26 PM
Supervise By	kareem	Supervise On	12/27/2024 11:00:25 AM

STD. NAME	STD REF.#
ICAL Standard	MP83552,MP83553,MP83554,MP83555,MP83556,MP83558
ICV Standard	MP83559
CCV Standard	MP83562
ICSA Standard	MP83560,MP83561
CRI Standard	MP83558
LCS Standard	
Chk Standard	MP83565,MP83566

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	S0	S0	CAL1	12/23/24 10:51		Kareem	OK
2	S1	S1	CAL2	12/23/24 10:56		Kareem	OK
3	S2	S2	CAL3	12/23/24 11:00		Kareem	OK
4	S3	S3	CAL4	12/23/24 11:04		Kareem	OK
5	S4	S4	CAL5	12/23/24 11:09		Kareem	OK
6	S5	S5	CAL6	12/23/24 11:13		Kareem	OK
7	ICV01	ICV01	ICV	12/23/24 11:17		Kareem	OK
8	LLICV01	LLICV01	LLICV	12/23/24 11:37		Kareem	OK
9	ICB01	ICB01	ICB	12/23/24 11:44		Kareem	OK
10	CRI01	CRI01	CRDL	12/23/24 11:51		Kareem	OK
11	ICSA01	ICSA01	ICSA	12/23/24 11:55		Kareem	OK
12	ICSAB01	ICSAB01	ICSAB	12/23/24 12:06		Kareem	OK
13	ICSADL	ICSADL	ICSA	12/23/24 12:10		Kareem	OK
14	ICSABDL	ICSABDL	ICSAB	12/23/24 12:14		Kareem	OK
15	CCV01	CCV01	CCV	12/23/24 12:31		Kareem	OK
16	CCB01	CCB01	CCB	12/23/24 12:35		Kareem	OK
17	PB165789BL	PB165789BL	MB	12/23/24 12:51		Kareem	OK
18	PB165789BS	PB165789BS	LCS	12/23/24 12:55	0.1ML OF M6001 AND M6010 WERE ADDED TO 10ML OF SAMPLE	Kareem	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134066

Review By	mohan	Review On	12/26/2024 10:44:26 PM
Supervise By	kareem	Supervise On	12/27/2024 11:00:25 AM

STD. NAME	STD REF.#
ICAL Standard	MP83552,MP83553,MP83554,MP83555,MP83556,MP83558
ICV Standard	MP83559
CCV Standard	MP83562
ICSA Standard	MP83560,MP83561
CRI Standard	MP83558
LCS Standard	
Chk Standard	MP83565,MP83566

19	PB165659BL	PB165659BL	MB	12/23/24 12:59		Kareem	OK
20	PB165659BS	PB165659BS	LCS	12/23/24 13:03	0.1ML OF M6001 AND M6010 WERE ADDED TO 10ML OF SAMPLE	Kareem	OK
21	P5330-04	TP-5	SAM	12/23/24 13:08		Kareem	OK
22	P5337-03	ETGI-357	SAM	12/23/24 13:12		Kareem	OK
23	P5338-01	USED-OIL-DEBRIS	SAM	12/23/24 13:16		Kareem	OK
24	P5338-02	USED-MOBILE-TRAN	SAM	12/23/24 13:21		Kareem	OK
25	P5341-02	STORMWATER-SOLI	SAM	12/23/24 13:25		Kareem	OK
26	P5355-02	RBR251688	SAM	12/23/24 13:39		Kareem	OK
27	CCV02	CCV02	CCV	12/23/24 13:43		Kareem	OK
28	CCB02	CCB02	CCB	12/23/24 13:47		Kareem	OK
29	P5355-01	RBR251688	SAM	12/23/24 13:52		Kareem	OK
30	P5355-01DL	RBR251688DL	SAM	12/23/24 13:58	NOT USE	Kareem	Not Ok
31	CCV03	CCV03	CCV	12/23/24 14:07		Kareem	OK
32	CCB03	CCB03	CCB	12/23/24 14:11		Kareem	OK
33	P5343-05	OILY-RAGS-274	SAM	12/23/24 14:15		Kareem	OK
34	P5355-02DUP	RBR251688DUP	DUP	12/23/24 14:20		Kareem	OK
35	P5355-02L	RBR251688L	SD	12/23/24 14:24		Kareem	OK
36	P5355-02MS	RBR251688MS	MS	12/23/24 14:28	0.1ML OF M6001 AND M6010 WERE ADDED TO 10ML OF SAMPLE	Kareem	OK

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Instrument ID: P4

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Supervise By	kareem	Supervise On	12/27/2024 11:00:25 AM

STD. NAME	STD REF.#
ICAL Standard	MP83552,MP83553,MP83554,MP83555,MP83556,MP83558
ICV Standard	MP83559
CCV Standard	MP83562
ICSA Standard	MP83560,MP83561
CRI Standard	MP83558
LCS Standard	
Chk Standard	MP83565,MP83566

37	P5355-02MSD	RBR251688MSD	MSD	12/23/24 14:33	0.1ML OF M6001 AND M6010 WERE ADDED TO 10ML OF SAMPLE	Kareem	OK
38	P5355-02A	RBR251688A	PS	12/23/24 14:37	0.1ML OF M6001 AND M6010 WERE ADDED TO 10ML OF SAMPLE	Kareem	OK
39	P5306-17	OU4-VSL-06R-12122	SAM	12/23/24 14:41		Kareem	OK
40	P5306-17DUP	OU4-VSL-06R-12122	DUP	12/23/24 14:45		Kareem	OK
41	P5306-17L	OU4-VSL-06R-12122	SD	12/23/24 14:49		Kareem	OK
42	P5306-17MS	OU4-VSL-06R-12122	MS	12/23/24 14:53	0.1ML OF M6001 AND M6010 WERE ADDED TO 10ML OF SAMPLE	Kareem	OK
43	CCV04	CCV04	CCV	12/23/24 15:06		Kareem	OK
44	CCB04	CCB04	CCB	12/23/24 15:10		Kareem	OK
45	P5306-17MSD	OU4-VSL-06R-12122	MSD	12/23/24 15:14	0.1ML OF M6001 AND M6010 WERE ADDED TO 10ML OF SAMPLE	Kareem	OK
46	P5306-17A	OU4-VSL-06R-12122	PS	12/23/24 15:18	0.1ML OF M6001 AND M6010 WERE ADDED TO 10ML OF SAMPLE	Kareem	OK
47	P5355-01DUP	RBR251688DUP	DUP	12/23/24 15:22		Kareem	OK
48	P5355-01L	RBR251688L	SD	12/23/24 15:27		Kareem	OK
49	P5355-01MS	RBR251688MS	MS	12/23/24 15:31	0.1ML OF M6001 AND M6010 WERE ADDED TO 10ML OF SAMPLE	Kareem	OK
50	P5355-01MSD	RBR251688MSD	MSD	12/23/24 15:36	0.1ML OF M6001 AND M6010 WERE ADDED TO 10ML OF SAMPLE	Kareem	OK

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Instrument ID: P4

Daily Analysis Runlog For Sequence/QCBatch ID # LB134066

Review By	mohan	Review On	12/26/2024 10:44:26 PM
Supervise By	kareem	Supervise On	12/27/2024 11:00:25 AM

STD. NAME	STD REF.#
ICAL Standard	MP83552,MP83553,MP83554,MP83555,MP83556,MP83558
ICV Standard	MP83559
CCV Standard	MP83562
ICSA Standard	MP83560,MP83561
CRI Standard	MP83558
LCS Standard	
Chk Standard	MP83565,MP83566

51	P5355-01A	RBR251688A	PS	12/23/24 15:40	0.1ML OF M6001 AND M6010 WERE ADDED TO 10ML OF SAMPLE	Kareem	OK
52	P5355-01DUPDL	RBR251688DUPDL	DUP	12/23/24 15:49	NOT USE	Kareem	Not Ok
53	P5355-01LDL	RBR251688LDL	SD	12/23/24 15:53	NOT USE	Kareem	Not Ok
54	CCV05	CCV05	CCV	12/23/24 16:06		Kareem	OK
55	CCB05	CCB05	CCB	12/23/24 16:10		Kareem	OK
56	P5355-01MSDL	RBR251688MSDL	MS	12/23/24 16:15	NOT USE	Kareem	Not Ok
57	P5355-01MSDDL	RBR251688MSDDL	MSD	12/23/24 16:19	NOT USE	Kareem	Not Ok
58	P5355-01ADL	RBR251688ADL	PS	12/23/24 16:23	NOT USE	Kareem	Not Ok
59	LR1	LR1	HIGH STD	12/23/24 16:27		Kareem	OK
60	LR2	LR2	HIGH STD	12/23/24 16:32		Kareem	OK
61	PB165733TB	PB165733TB	MB	12/23/24 16:36		Kareem	OK
62	CCV06	CCV06	CCV	12/23/24 16:54		Kareem	OK
63	CCB06	CCB06	CCB	12/23/24 16:58		Kareem	OK

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Prep Standard - Chemical Standard Summary

Order ID : P5306

Test : Mercury,Metals Group6,Metals ICP-TAL

Prepbatch ID : PB165698,PB165728,

Sequence ID/Qc Batch ID: LB133991,LB134001,LB134001,LB134066,

Standard ID :
MP83208,MP83210,MP83498,MP83500,MP83552,MP83552 MP83553 MP83554 MP83555 MP83556 MP83558,MP83557,MP83559,MP83560,MP83560 MP83561,MP83562,MP83565,MP83565 MP83566,MP83675,MP83676,MP83677,MP83678,MP83679,MP83680,MP83681,MP83682,MP83683,MP83684,MP836 85,MP83686,MP83687,MP83688,MP83689,

Chemical ID :
M4371,M4583,M4916,M5062,M5130,M5192,M5218,M5223,M5288,M5295,M5296,M5390,M5393,M5429,M5466,M5467 ,M5497,M5515,M5585,M5658,M5697,M5698,M5747,M5748,M5768,M5798,M5799,M5800,M5801,M5802,M5806,M581 4,M5815,M5816,M5817,M5818,M5819,M5820,M5875,M5882,M5884,M5953,M5959,M5962,M5970,M5978,M5982,M59 85,M6000,M6009,M6021,M6023,M6028,M6030,M6033,M6121,M6125,M6126,W3112,

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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 %	MP83208	11/11/2024	05/11/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 11/11/2024

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
67	SODIUM CHLORIDE - HYDROXYL- CHLORIDE SOLUTION	MP83210	11/11/2024	05/11/2025	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 11/11/2024

FROM 2000.00000ml of W3112 + 240.00000gram of M4371 + 240.00000gram of M5884 = 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
169	1:1HNO3	MP83498	12/09/2024	01/03/2025	Janvi Patel	None	None	Sarabjit Jaswal 12/09/2024

FROM 1250.00000ml of M6126 + 1250.00000ml of W3112 = Final Quantity: 2500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
902	ICP AES CAL BLK (SO/ICB/CCB)	MP83500	12/06/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/09/2024

FROM 125.00000ml of M6121 + 2350.00000ml of W3112 + 25.00000ml of M6126 = 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
514	CAL BLK (S0/ICB/CCB)	MP83552	12/06/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/11/2024

FROM 125.00000ml of M6121 + 2350.00000ml of W3112 + 25.00000ml of M6126 = Final Quantity: 2500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
2950	ICP AES S1/CRI STOCK STD	MP83557	12/06/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/11/2024

FROM 0.00600ml of M5816 + 0.03000ml of M5798 + 0.03000ml of M6028 + 0.05000ml of M5515 + 0.05000ml of M5658 + 0.05000ml of M6030 + 0.05000ml of M6033 + 0.06000ml of M5747 + 0.10000ml of M5697 + 0.10000ml of M5698 + 0.10000ml of M5801 + 0.10000ml of M5820 + 0.10000ml of M5962 + 0.10000ml of M5970 + 0.10000ml of M5982 + 0.15000ml of M5800 + 0.20000ml of M5748 + 0.20000ml of M5799 + 0.20000ml of M5819 + 0.20000ml of M5978 + 0.20000ml of M6021 + 0.20000ml of M6023 + 0.25000ml of M5467 + 0.25000ml of M5802 + 0.50000ml of M5390 + 0.50000ml of M5814 + 1.00000ml of M5192 + 1.00000ml of M5288 + 1.00000ml of M5497 + 1.00000ml of M5768 + 1.00000ml of M5806 + 2.00000ml of M5818 + 77.68000ml of MP83500 = 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
912	ICP AES ICV SOLN	MP83559	12/06/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/11/2024

FROM 0.02500ml of M5429 + 0.02500ml of M5815 + 0.02500ml of M5817 + 0.10000ml of M5466 + 0.25000ml of M5218 + 0.25000ml of M5982 + 10.00000ml of M5295 + 89.77500ml of MP83500 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
904	ICP AES ICSA SOLN	MP83560	12/06/2024	12/28/2024	Kareem Khairalla	None	None	Sarabjit Jaswal 12/11/2024

FROM 25.00000ml of M5130 + 225.00000ml of MP83500 = 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
911	ICP AES CCV SOLN	MP83562	12/06/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/11/2024

FROM 50.00000ml of MP83500 + 50.00000ml of MP83553 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
919	ICP AES INTERNAL STD	MP83565	12/06/2024	01/06/2025	Kareem Khairalla	None	None	Sarabjit Jaswal 12/11/2024

FROM 1.00000ml of M5959 + 10.00000ml of M5985 + 1969.00000ml of W3112 + 20.00000ml of M6126 = 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
871	MERCURY INTERMEDIATE B 250PPB WORKING STD.	MP83675	12/18/2024	12/19/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/18/2024

FROM 1.00000ml of M6126 + 2.50000ml of M5062 + 96.50000ml of W3112 = Final Quantity: 100.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1340	Hg 0.00 PPB STD	MP83676	12/18/2024	12/19/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/18/2024

FROM 2.50000ml of M6126 + 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
1341	Hg 0.2 PPB STD	MP83677	12/18/2024	12/19/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/18/2024

FROM 2.50000ml of M6126 + 247.30000ml of W3112 + 0.20000ml of MP83675 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1342	Hg 2.5 PPB STD	MP83678	12/18/2024	12/19/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/18/2024

FROM 2.50000ml of M6126 + 245.00000ml of W3112 + 2.50000ml of MP83675 = 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
1343	Hg 5.0 PPB STD	MP83679	12/18/2024	12/19/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/18/2024

FROM 2.50000ml of M6126 + 242.50000ml of W3112 + 5.00000ml of MP83675 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1344	Hg 7.5 PPB STD	MP83680	12/18/2024	12/19/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/18/2024

FROM 2.50000ml of M6126 + 240.00000ml of W3112 + 7.50000ml of MP83675 = 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
1345	Hg 10.0 PPB STD	MP83681	12/18/2024	12/19/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/18/2024

FROM 2.50000ml of M6126 + 237.50000ml of W3112 + 10.00000ml of MP83675 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1346	Hg ICV SOLUTION	MP83682	12/18/2024	12/19/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/18/2024

FROM 2.50000ml of M5953 + 2.50000ml of M6126 + 245.00000ml 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
1351	ICB (Hg 0.00 PPB SOLUTION)	MP83683	12/18/2024	12/19/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/18/2024

FROM 2.50000ml of M6126 + 247.50000ml of W3112 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1358	CCV (Hg 5.0 PPB SOLUTION)	MP83684	12/18/2024	12/19/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/18/2024

FROM 485.00000ml of W3112 + 5.00000ml of M6126 + 10.00000ml of MP83675 = 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
1352	CCB (Hg 0.00 PPB SOLUTION)	MP83685	12/18/2024	12/19/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/18/2024

FROM 495.00000ml of W3112 + 5.00000ml of M6126 = Final Quantity: 500.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
1349	CRA/CRI (Hg 0.2 PPB SOLUTION)	MP83686	12/18/2024	12/19/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/18/2024

FROM 2.50000ml of M6126 + 247.30000ml of W3112 + 0.20000ml of MP83675 = 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
1350	CHK STD (Hg 7.0 PPB SOLUTION)	MP83687	12/18/2024	12/19/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/18/2024

FROM 2.50000ml of M6126 + 240.50000ml of W3112 + 7.00000ml of MP83675 = Final Quantity: 250.000 ml

Recipe ID	NAME	NO.	Prep Date	Expiration Date	Prepared By	ScaleID	PipetteID	Supervised By
887	AQUA REGIA FOR HG ON 7471A	MP83688	12/18/2024	12/19/2024	Mohan Bera	None	METALS_PIPETTE_5 (HGA)	Sarabjit Jaswal 12/18/2024

FROM 150.00000ml of M6121 + 50.00000ml of M6126 = 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
68	STANNOUS CHLORIDE SOLUTION	MP83689	12/18/2024	12/19/2024	Mohan Bera	METALS_SCALE_3 (M SC-3)	None	Sarabjit Jaswal 12/18/2024

FROM 450.00000ml of W3112 + 50.00000gram of M5882 + 50.00000ml of M6121 = Final Quantity: 500.000 ml

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-2196-01 / Hydroxylamine Hydrochloride, Crystal (cs/4x500g)	0000215387	06/25/2025	07/01/2019 / RICHARD	06/07/2019 / RICHARD	M4371

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Labpure	0919120 / Boiling Stones	26275770	07/07/2025	07/03/2020 / mohan	05/07/2020 / mohan	M4583

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 #
EPA	PART A / ICSA (ICP) STOCK SOLN	ICSA-1211	12/28/2024	05/20/2024 / jaswal	04/20/2021 / bin	M5130

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	051722	05/17/2025	07/01/2022 / bin	06/17/2022 / jaswal	M5192

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CHEM-QC-4 / CHEM-QC-4, Second Source, 1000 ug/ml, B, Mo, Si, Sn, Ti	S2-MEB711674	11/02/2026	07/01/2022 / bin	09/10/2021 / bin	M5218

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	12/28/2024	05/20/2024 / jaswal	04/20/2021 / bin	M5223

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58119 / K, 10000 PPM, 500 ml	071122	07/11/2025	09/01/2022 / jaswal	07/21/2022 / jaswal	M5288

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-1 / ICV (ICP/ICPMS) STOCK SOLN	ICV-1014	02/05/2025	08/07/2024 / jaswal	04/20/2021 / bin	M5295

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	Z9651Q / CHEM-CLP-4/.25L	S2-MEB711673	11/02/2026	09/19/2022 / jaswal	08/20/2022 / jaswal	M5296

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57056 / Ba, 1000 PPM, 125 ml	072122	07/21/2025	08/07/2024 / jaswal	09/18/2022 / bin	M5390

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-3 / CLP CAL SOLUTION #3, 125mL	T2-MEB714159	01/13/2027	10/12/2022 / bin	09/19/2022 / bin	M5393

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57103 / Li, 10000 PPM, 125 ml	070622	07/06/2025	01/30/2023 / bin	01/26/2023 / bin	M5429

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57058 / Cerium, 1000PPM, 100ML	061322	06/13/2025	03/06/2023 / bin	03/01/2023 / bin	M5466

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57058 / Cerium, 1000PPM, 100ML	020623	02/06/2026	03/06/2023 / bin	03/01/2023 / bin	M5467

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58120 / Ca, 10000 PPM, 500 ml	031523	03/15/2026	03/18/2023 / bin	03/17/2023 / bin	M5497

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58126 / Fe, 10000 PPM, 500 ml	092122	09/21/2025	08/01/2024 / Jaswal	03/17/2023 / bin	M5515

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	26397-103 / PTFE BOILING STONES	W126678	02/28/2025	01/20/2024 / jaswal	06/12/2023 / jaswal	M5585

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

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	102623	10/26/2026	04/18/2024 / jaswal	10/27/2023 / jaswal	M5698

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ Lead (Pb) 1000PPM	100923	10/09/2026	05/20/2024 / Jaswal	12/20/2023 / jaswal	M5747

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	/ Nickel (Ni) 1000PPM	091223	09/12/2026	01/02/2024 / bin	12/20/2023 / jaswal	M5748

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58112 / Mg, 10000 PPM, 500 ml	091823	09/18/2026	01/08/2024 / bin	01/03/2024 / bin	M5768

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
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.	57051 / Sb, 1000 PPM, 125 ml	120523	12/05/2026	08/07/2024 / jaswal	01/03/2024 / jaswal	M5802

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58111 / Na, 10000 PPM, 500 ml	122223	12/22/2026	08/01/2024 / Jaswal	01/03/2024 / jaswal	M5806

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57005 / B, 1000 PPM, 125 ml	071123	07/11/2026	03/26/2024 / Sohil	01/03/2024 / jaswal	M5814

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57115 / P, 10000 PPM, 125 ml	041723	04/17/2026	05/21/2024 / Jaswal	02/09/2024 / jaswal	M5815

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57016 / S, 1000 PPM, 125 ml	122923	12/29/2026	05/20/2024 / Jaswal	02/09/2024 / jaswal	M5816

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57116 / S, 10000 PPM, 125 ml	071123	07/11/2026	03/01/2024 / jaswal	02/09/2024 / jaswal	M5817

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57014 / Si, 1000 PPM, 125 ml	122023	12/20/2026	03/06/2024 / jaswal	02/09/2024 / jaswal	M5818

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58030 / Zinc, Zn, 500 ml, 1000 PPM	111623	11/16/2026	03/20/2024 / jaswal	02/09/2024 / jaswal	M5819

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57015 / P, 1000 PPM, 125 ml	091123	09/11/2026	05/01/2024 / jaswal	02/09/2024 / jaswal	M5820

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CLPP-CAL-1 / CLP CAL SOLUTION #1, 125mL	T2-MEB714417	01/27/2027	04/19/2024 / jaswal	02/22/2024 / jaswal	M5875

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3980-01 / Stannous Chloride (cs/4x500g)	232820	08/31/2028	04/30/2024 / mohan	04/25/2024 / mohan	M5882

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-3624-05 / Sodium Chloride, Crystal (cs/4x2.5kg)	0000281938	07/06/2026	04/30/2024 / mohan	04/25/2024 / mohan	M5884

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-5 / ICV (HG) STOCK SOLN	ICV5-0415	01/01/2025	07/01/2024 / mohan	03/30/2023 / mohan	M5953

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGY10-1 / YTTRIUM 125mL 10,000ug/mL	V2-Y740548	02/20/2029	07/01/2024 / Jaswal	06/14/2024 / Jaswal	M5959

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57034 / Se, 1000 PPM, 125 ml	060624	06/06/2027	07/02/2024 / Jaswal	06/14/2024 / Jaswal	M5962

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57003 / Li, 1000 PPM, 125 ml	061224	06/21/2027	07/01/2024 / Jaswal	07/01/2024 / Jaswal	M5970

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	06/17/2027	08/07/2024 / jaswal	02/22/2024 / Jaswal	M5978

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57038 / Sr, 1000 PPM, 125 ml	031524	03/15/2027	07/01/2024 / Jaswal	06/11/2024 / Jaswal	M5982

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGIN10-5 / INDIUM 1 x 500 ml	U2-IN729349	02/21/2028	10/08/2024 / Jaswal	06/14/2024 / Jaswal	M5985

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Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	WW-LFS-1 / Laboratory Fortified Stock Solution 1, 125 ml	T2-MEB723367	08/30/2026	08/13/2024 / Jaswal	05/14/2024 / Jaswal	M6000

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	WW-LFS-2 / Laboratory Fortified Stock Solution 2, 125 ml	U2-MEB731108	03/17/2028	08/13/2024 / Jaswal	05/14/2024 / Jaswal	M6009

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.	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

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CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Al, 10000 PPM, 500 ml	011623	01/16/2026	08/07/2024 / Jaswal	01/03/2024 / Jaswal	M6033

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)	0000275677	05/13/2025	11/13/2024 / Eman	10/13/2024 / Eman	M6121

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
PCI Scientific Supply, Inc.	1403 / Hydrogen Peroxide, 30% 1 gal	820803	05/25/2025	11/26/2024 / Eman	11/22/2024 / Eman	M6125

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	06/03/2025	12/03/2024 / Janvi	11/12/2024 / Janvi	M6126

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / Iwona	07/03/2024 / Iwona	W3112

ThermoFisher SCIENTIFIC

M5882 M3

Certificate of Analysis

1 Reagent Lane
Fair Lawn, NJ 07410
201.796.7100 tel
201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120633

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	T142	Quality Test / Release Date	08/17/2023
Lot Number	232820		
Description	STANNOUS CHLORIDE, DIHYDRATE CERTIFIED ACS (Suitable for Mercury Determination)		
Country of Origin	United States	Suggested Retest Date	Aug/2028
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	Clear crystals
ASSAY	%	Inclusive Between 98 - 103	100.65
CALCIUM	%	<= 0.005	0.0017
IDENTIFICATION	PASS/FAIL	= PASS TEST	PASS TEST
IRON (Fe)	%	<= 0.003	0.0011
LEAD (Pb)	%	<= 0.01	0.0006
MERCURY (Hg)	ppm	<= 0.05	<0.05
POTASSIUM (K)	%	<= 0.005	0.0001
SODIUM (Na)	%	<= 0.01	<0.01
SOLUBILITY IN HCL	PASS/FAIL	= PASS TEST	PASS TEST
SULFATE (SO4)	PASS/FAIL	= P.T. (ABOUT 0.003%)	P.T. (ABOUT 0.003%)

Harout Sahagian - Quality Control Supervisor - Fair Lawn

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.
If there are any questions with this certificate, please call at (800) 227-6701.
*Based on suggested storage condition.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M6028

R 8/15/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

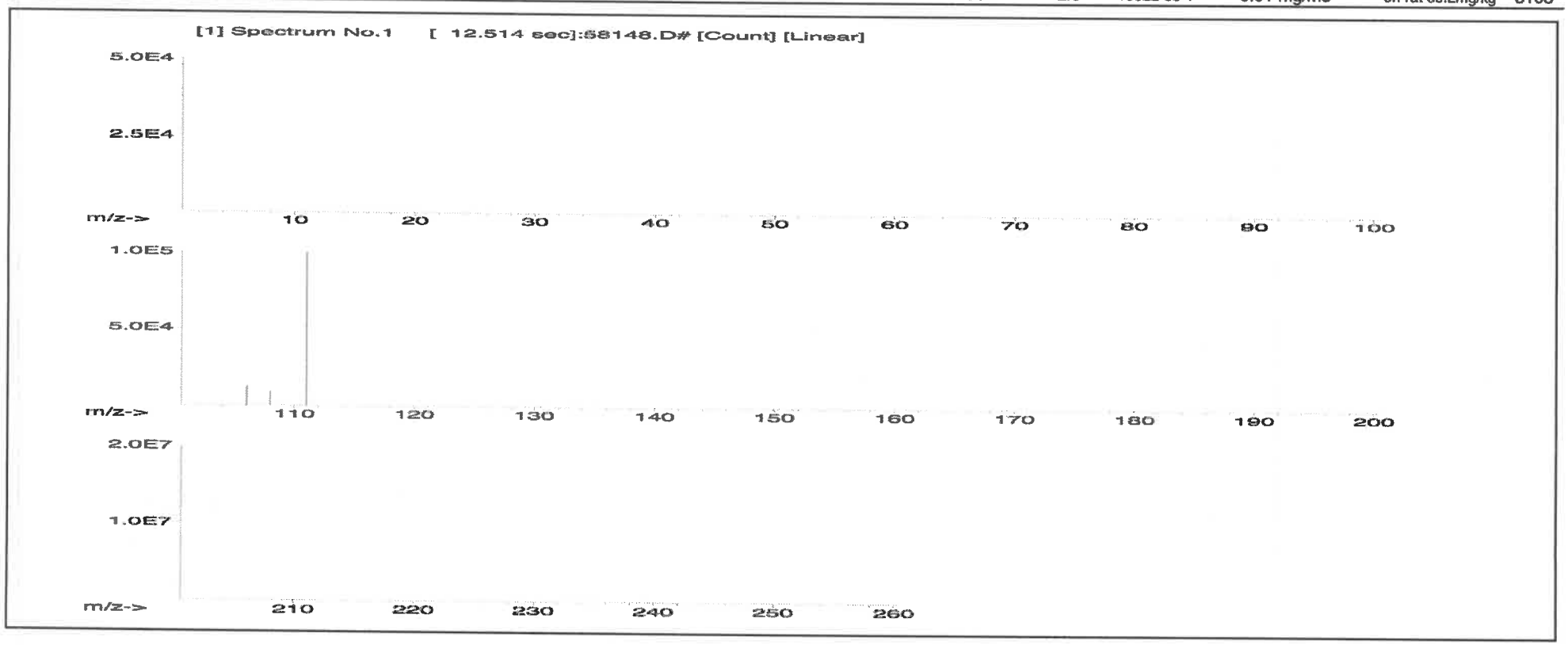
CERTIFIED WEIGHT REPORT:

Part Number:	**57048**		**Lot #**		
Lot Number:	**070124**	**Solvent:**	24002546	Nitric Acid	
Description:	**Cadmium (Cd)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	070127				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	070124
Reviewed By:	Pedro L. Rentas	070124

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cadmium nitrate tetrahydrate (Cd)	IN024	CDM092021A1	1000	99.999	0.10	36.5	5.4797	5.4804	**1000.1**	**2.0**	10022-68-1	0.01 mg/m3	orl-rat 60.2mg/kg	3108



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Certified Reference Material CRM

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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	T	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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Certificate of Analysis

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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:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-CLP-4
Lot Number:	S2-MEB711673
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 ± 6 µg/mL**	**Molybdenum, Mo**	**1 000 ± 6 µg/mL**
Silicon, Si	**1 000 ± 7 µg/mL**	**Tin, Sn**	**1 000 ± 6 µg/mL**
Titanium, Ti	**1 000 ± 7 µg/mL**		

Density: 1.030 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	110830
Mo	ICP Assay	3134	130418
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

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

November 02, 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

- **November 02, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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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:	CLPP-CAL-1
Lot Number:	T2-MEB714417
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	5 000 µg/mL ea: Calcium, Potassium, Magnesium, Sodium, 2 000 µg/mL ea: Aluminum, Barium, 1 000 µg/mL ea: Iron, 500 µg/mL ea: Nickel, Vanadium, Zinc, Cobalt, Manganese, 250 µg/mL ea: Silver, Copper, 200 µg/mL ea: Chromium, 50 µg/mL ea: Beryllium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	2 000 ± 7 µg/mL	Barium, Ba	2 000 ± 9 µg/mL
Beryllium, Be	50.00 ± 0.26 µg/mL	Calcium, Ca	5 000 ± 22 µg/mL
Chromium, Cr	200.0 ± 1.0 µg/mL	Cobalt, Co	500.0 ± 2.4 µg/mL
Copper, Cu	250.0 ± 1.0 µg/mL	Iron, Fe	1 000 ± 4 µg/mL
Magnesium, Mg	5 000 ± 20 µg/mL	Manganese, Mn	500.0 ± 2.0 µg/mL
Nickel, Ni	500.0 ± 2.2 µg/mL	Potassium, K	5 000 ± 19 µg/mL
Silver, Ag	250.0 ± 1.1 µg/mL	Sodium, Na	5 000 ± 18 µg/mL
Vanadium, V	499.7 ± 2.2 µg/mL	Zinc, Zn	500.0 ± 2.2 µg/mL

Density: 1.118 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cr	Calculated		See Sec. 4.2
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Note: This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 27, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 27, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

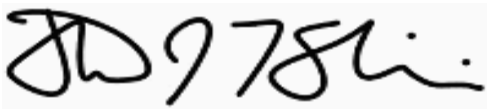
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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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:	CLPP-CAL-3
Lot Number:	T2-MEB714159
Matrix:	7% (v/v) HNO3
Value / Analyte(s):	1 000 µg/mL ea: Arsenic, Lead, Selenium, Thallium, 500 µg/mL ea: Cadmium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Arsenic, As	**1 000 ± 8 µg/mL**	**Cadmium, Cd**	**500.0 ± 2.1 µg/mL**
Lead, Pb	**1 000 ± 5 µg/mL**	**Selenium, Se**	**1 000 ± 8 µg/mL**
Thallium, Tl	**1 000 ± 7 µg/mL**		

Density: 1.043 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
As	ICP Assay	3103a	100818
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Tl	ICP Assay	3158	151215

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

January 13, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **January 13, 2027**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

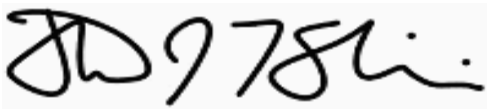
- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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RD:05/14/2024

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01

ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	WW-LFS-1
Lot Number:	T2-MEB723367
Matrix:	5% (v/v) HNO3

Value / Analyte(s):	1 000 µg/mL ea: Potassium,	
	600 µg/mL ea: Phosphorus,	
	300 µg/mL ea: Sodium,	Iron,
	200 µg/mL ea: Magnesium, Cerium, Thallium,	Aluminum, Selenium,
	100 µg/mL ea: Lead,	Calcium,
	80 µg/mL ea: Arsenic,	
	70 µg/mL ea: Mercury,	
	50 µg/mL ea: Nickel,	
	40 µg/mL ea: Chromium,	
	30 µg/mL ea: Copper, Vanadium,	Boron,
	20 µg/mL ea: Zinc, Barium, Cadmium, Manganese,	Strontium, Beryllium, Cobalt, Lithium,
	7.5 µg/mL ea: Silver	

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	200.0 ± 0.7 µg/mL	Arsenic, As	80.0 ± 0.7 µg/mL
Barium, Ba	20.00 ± 0.09 µg/mL	Beryllium, Be	20.00 ± 0.13 µg/mL
Boron, B	30.00 ± 0.18 µg/mL	Cadmium, Cd	20.00 ± 0.09 µg/mL
Calcium, Ca	100.0 ± 0.4 µg/mL	Cerium, Ce	200.0 ± 0.8 µg/mL
Chromium, Cr	40.00 ± 0.30 µg/mL	Cobalt, Co	20.00 ± 0.10 µg/mL
Copper, Cu	30.00 ± 0.13 µg/mL	Iron, Fe	300.0 ± 1.3 µg/mL
Lead, Pb	100.0 ± 0.4 µg/mL	Lithium, Li	20.00 ± 0.08 µg/mL
Magnesium, Mg	200.0 ± 0.8 µg/mL	Manganese, Mn	20.00 ± 0.08 µg/mL
Mercury, Hg	70.0 ± 0.3 µg/mL	Nickel, Ni	50.00 ± 0.22 µg/mL
Phosphorus, P	600.0 ± 2.7 µg/mL	Potassium, K	1 000 ± 4 µg/mL
Selenium, Se	200.0 ± 1.3 µg/mL	Silver, Ag	7.50 ± 0.03 µg/mL
Sodium, Na	300.0 ± 1.4 µg/mL	Strontium, Sr	20.01 ± 0.08 µg/mL
Thallium, Tl	200.0 ± 1.4 µg/mL	Vanadium, V	30.00 ± 0.13 µg/mL
Zinc, Zn	20.00 ± 0.09 µg/mL		

Density: 1.034 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Ag	Calculated		See Sec. 4.2
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
B	ICP Assay	3107	190605
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Ce	ICP Assay	3110	090504
Ce	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Hg	ICP Assay	3133	160921
Hg	EDTA	928	928
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	Traceable to 3152A	S2-NA700842
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
P	ICP Assay	3139a	060717
P	Acidimetric	84L	84L
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Sr	EDTA	928	928
Sr	ICP Assay	Traceable to 3153a	K2-SR650985
Tl	ICP Assay	3158	151215
V	IC Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

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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

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u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

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10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 30, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 30, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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Certificate of Analysis

RD:05/14/2024

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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-2
Lot Number:	U2-MEB731108
Matrix:	5% (v/v) HNO3 tr. HF
Value / Analyte(s):	200 µg/mL ea: Silica, 80 µg/mL ea: Antimony, 70 µg/mL ea: Tin, 40 µg/mL ea: Molybdenum, 20 µg/mL ea: Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Antimony, Sb	80.1 ± 0.6 µg/mL	Molybdenum, Mo	40.03 ± 0.18 µg/mL
Silica, SiO2	200.2 ± 1.3 µg/mL	Tin, Sn	70.0 ± 0.4 µg/mL
Titanium, Ti	20.01 ± 0.13 µg/mL		

Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Mo	ICP Assay	3134	130418
Mo	Calculated		See Sec. 4.2
Sb	ICP Assay	3102a	140911
SiO2	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925
Ti	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 17, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- March 17, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



M4371

Hydroxylamine Hydrochloride, Crystal
BAKER ANALYZED® A.C.S. Reagent
Suitable for Mercury Determination
(hydroxylammonium chloride)

Rec – 06.07.19

J.T.Baker® | avantor™

Material No.: 2196-01
Batch No.: 0000215387
Manufactured Date: 2018/06/27
Retest Date: 2025/06/25
Revision No: 1

Certificate of Analysis

Meets ACS Reagent Chemical Requirements,

Test	Specification	Result
Assay ($NH_2OH \cdot HCl$) (by $KMnO_4$ titrn)	>= 96.0 %	99.1
Clarity of Alcohol Solution	Passes Test	PT
Residue after Ignition	<= 0.050 %	0.017
Titrable Free Acid (meq/g)	<= 0.25	0.19
Ammonium (NH_4)	Passes Test	PT
Sulfur Compounds (as SO_4)	<= 0.005 %	< 0.003
Trace Impurities - ACS - Heavy Metals (as Pb)	<= 5 ppm	4
Trace Impurities - Iron (Fe)	<= 5 ppm	< 3
Trace Impurities - Mercury (Hg)	<= 0.050 ppm	< 0.005

For Laboratory, Research or Manufacturing Use

Country of Origin: CN
Packaging Site: Paris Mfg Ctr & DC

ISO
Phillipsburg, NJ 9001:2015, FSSC22000
Paris, KY 9001:2008
Mexico City, Mexico 9001:2008
Gliwice, Poland 9001:2015, 13485:2012
Selangor, Malaysia 9001:2008
Dehradun, India, 9001:2008, 14001:2004, 13485:2003
Mumbai, India, 9001:2015, 17025:2005
Panoli, India 9001:2015

James Ethier
Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

M45 P3
Exp 12+. 5 7x4
MB

SAINT-GOBAIN

Manufacturer:
Saint-Gobain Performance Plastics
11 Sicho Drive
Poestenkill, NY 12140

Certificate of Conformance

Part Number/ Revision:	D1069103 0	**Customer Part Number/ Revision:**	1069103 N/A
Description:	*PTFE BOILING STONES-450 GRAMS		
Lot Number:	26275770	**Lot Quantity:**	10 EA
Date of Manufacture (MM/DD/YY)	03/23/20	**Expiration Date: (MM/DD/YY)**	N/A
Post Processing Run Number: (Refer to the attached Certificate for Additional Detail)		N/A	

We certify the material listed above confirms in full with the following specifications:

All items have been manufactured, inspected, tested, and accepted in accordance with our Quality Management system, ISO 9001-2015. Documentation substantiating this certification is kept on record per the Company's retention policy and is available for review.
All materials and processes used in manufacturing conform to the materials and/or manufacturing specifications and notes indicated on the purchase order, drawing, specifications, quality assurance requirements, or other applicable documents effective on the date of manufacture.
Saint-Gobain does not warrant the product for any particular application and it is the responsibility of the user to conduct tests that are deemed necessary to determine the suitability of the product for any particular use. Saint-Gobain's sole responsibility shall be for failure to manufacture the product in accordance with specifications and requirements of the buyer, and from defects in material and workmanship. This warranty is expressly made in lieu of any and all other warranties and Saint-Gobain's sole liability shall be to replace any product not in conformance with the specification and requirements of the buyer.

Quality Approval:	Jonathan Kimble	**Date:**	05/13/20

Certificate of Analysis
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 HNO3. 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% HNO3 / LDPE container, stable in 10% HNO3 packaged in borosilicate glass. 1-100 ppm levels stable in 7% HNO3 packaged in borosilicate glass. 1000-10,000 ppm solutions are chemically stable for years in 5-10% HNO3 / LDPE container.

Hg Containing Samples (Preparation and Solution) - Metal (soluble in HNO3); Oxide (Soluble in HNO3); 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

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 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



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

(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,

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

ICSA M5126 M5127 M5128 M5129 M5130

ICSB M5219 M5220 M5221 M5222 M5223

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.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5192 R: 06/17/22

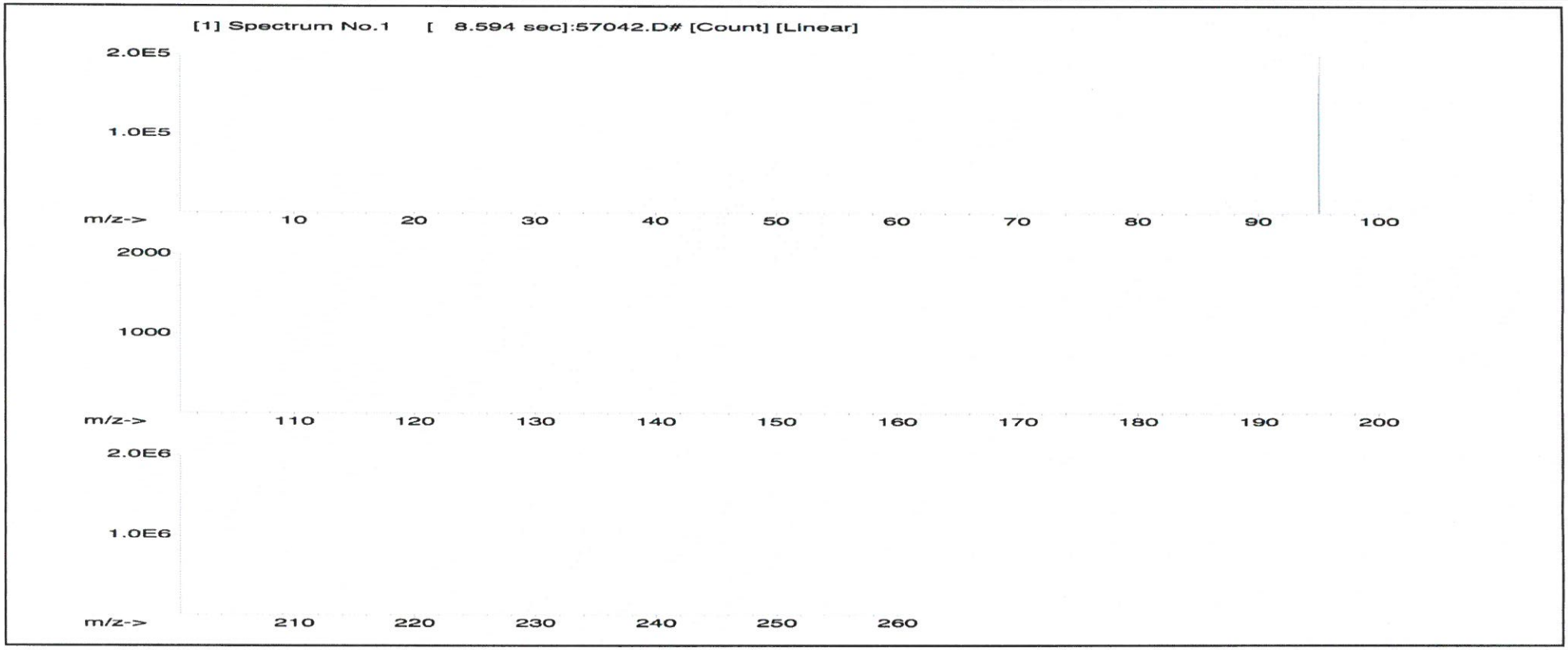
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:
Part Number:	**57042**		
Lot Number:	**051722**	MKBQ8597V	Ammonium hydroxide
Description:	**Molybdenum (Mo)**		
		0.5%	15.0 (mL) Ammonium hydroxide
Expiration Date:	051725		
Recommended Storage:	Ambient (20 °C)		
Nominal Concentration (µg/mL):	**1000**		
NIST Test Number:	6UTB	5E-05	Balance Uncertainty
Volume shown below was diluted to (mL):	3000.41	0.058	Flask Uncertainty

Formulated By:	Lawrence Barry	051722
Reviewed By:	Pedro L. Rentas	051722

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	022222	0.1000	300.0	0.084	1000	10001.0	**1000.0**	**2.1**	13106-76-8	5 mg(Mo)/m3	orl-rat 333 mg/kg	3134



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Certified Reference Material CRM

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AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	T	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

INORGANIC VENTURES™
Refine your results. Redefine your industry.

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 883.01
ACCREDITED Reference Material Producer Certificate 883.02

2.0 PRODUCT DESCRIPTION

Product Code:	Multi Analyte Custom Grade Solution
Catalog Number:	CHEM-QC-4
Lot Number:	S2-MEB711674
Matrix:	3% (v/v) HNO3 3% (v/v) HF
Value / Analyte(s):	1 000 µg/mL ea: Boron, Molybdenum, Silicon, Tin, Titanium

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
Boron, B	**1 000 ± 7 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	**1 001 ± 6 µg/mL**		

Density: 1.032 g/mL (measured at 20 ± 4 ºC)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	110830
Mo	ICP Assay	3134	130418
Si	ICP Assay	3150	130912
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	3162a	130925

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:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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

$CRM/RM\ Expanded\ Uncertainty\ (\pm) = U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

HF Note: This standard should not be prepared or stored in glass.

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

November 02, 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

- **November 02, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-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

(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,

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

ICSA M5126 M5127 M5128 M5129 M5130

ICSB M5219 M5220 M5221 M5222 M5223

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.

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

M5288 R: 07/21/2022

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

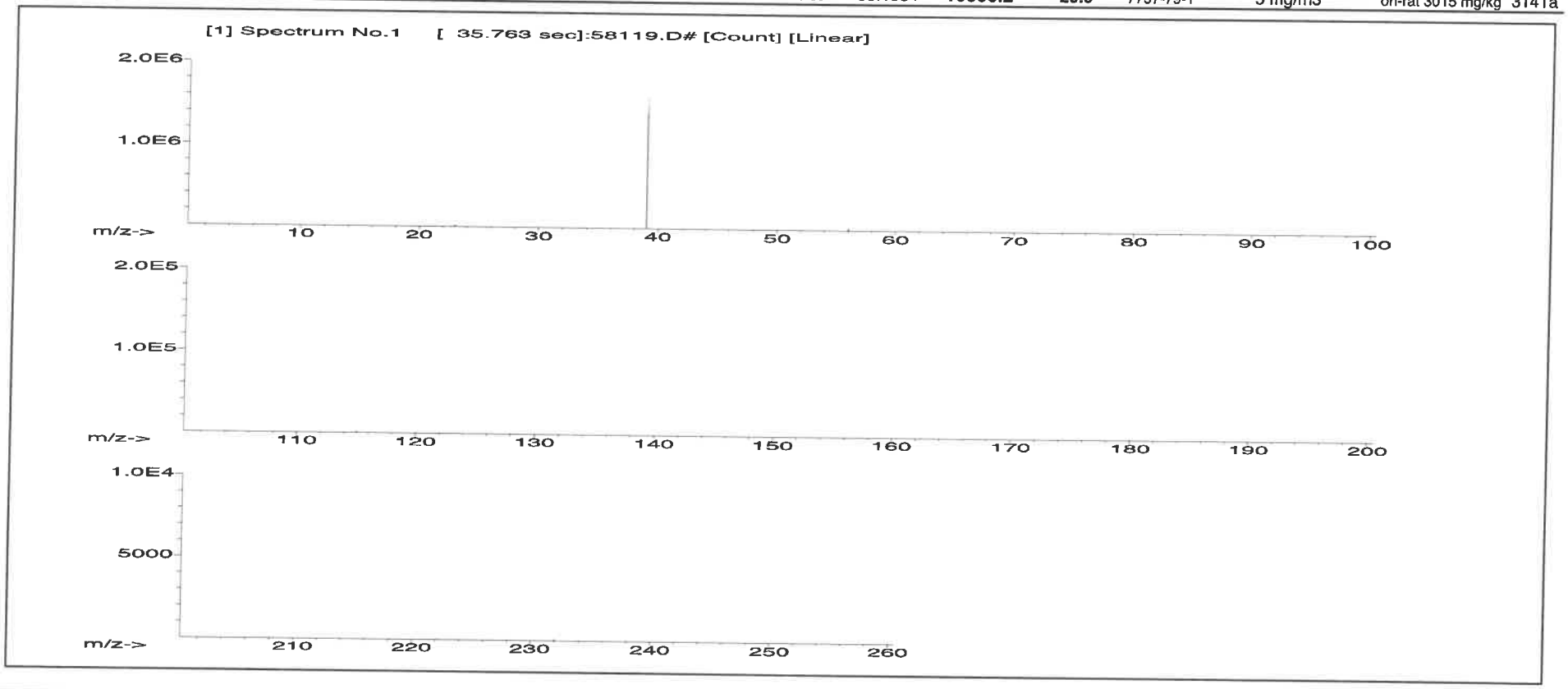
Part Number: 58119
Lot Number: 071122
Description: Potassium (K)

Expiration Date: 071125
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

Formulated By:	Lawrence Barry	071122
Reviewed By:	Pedro L. Rentas	071122

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Potassium nitrate (K)	IN034	KD022021A1	10000	99.999	0.10	37.6	53.1925	53.1934	**10000.2**	**20.0**	7757-79-1	5 mg/m3	orl-rat 3015 mg/kg	3141a



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	T	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

R : 4/20/21

QATS LABORATORY INORGANIC REFERENCE MATERIAL
INITIAL CALIBRATION VERIFICATION SOLUTIONS
(ICV1, ICV5, AND ICV6)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Metals in Dilute Acidic or
Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

M5291
M5292
M5293
M5294
M5295

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more Aqueous Inorganic Reference Materials containing various analyte concentrations. ICV1 and ICV5 are in a matrix of dilute nitric acid. ICV6 is in a matrix of dilute basic solution. **For the reference material source in reporting ICVs use "USEPA". For the reference material lot number for the ICV1, ICV5, and ICV6 solutions use "ICV1-1014", "ICV5-0415", and "ICV6-0400", respectively.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP, AA, and Cyanide colorimetric instruments, and are to be used with the CLP SOWs and revisions. The values for each element in the ICVs are listed below in µg/L (ppb) for the resulting solution(s) after the dilution of the concentrate(s) according to the following instructions. Use Class 'A' glassware to prepare the solution(s).

ICV1-1014 For ICP-AES analysis, use a 10-fold dilution by pipetting 10 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.

ICV1-1014 For ICP-MS analysis, use a 50-fold dilution by pipetting 2 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.

ICV5-0415 For the cold vapor analysis of mercury by AA, use a 100-fold dilution by pipetting 1 mL of the ICV5 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v) $K_2Cr_2O_7$ and 5% (v/v) nitric acid.

ICV6-0400 For the analysis of cyanide, use a 100-fold dilution by pipetting 1 mL of the ICV6 concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from $K_3Fe(CN)_6$, Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

NOTE: USE TYPE II WATER AND HIGH-PURITY ACIDS FOR ALL DILUTIONS.

(D) *CERTIFIED CONCENTRATIONS OF QATS ICV1, ICV5, AND ICV6 SOLUTIONS*

ICV1-1014		
Element	**Concentration (µg/L) (after 10-fold dilution)**	**Concentration (µg/L) (after 50-fold dilution)**
Al	2500	500
Sb	1000	200
As	1000	200
Ba	520	100
Be	510	100
Cd	510	100
Ca	10000	2000
Cr	520	100
Co	520	100
Cu	510	100
Fe	10000	2000
Pb	1000	200
Mg	6000	1200
Mn	520	100
Ni	530	110
K	9900	2000
Se	1000	200
Ag	250	50
Na	10000	2000
Tl	1000	210
V	500	100
Zn	1000	200

ICV5-0415		ICV6-0400	
Element	**Concentration (µg/L) (after 100-fold dilution)**	**Analyte**	**Concentration (µg/L) (after 100-fold dilution)**
Hg	4.0	**CN^-**	99

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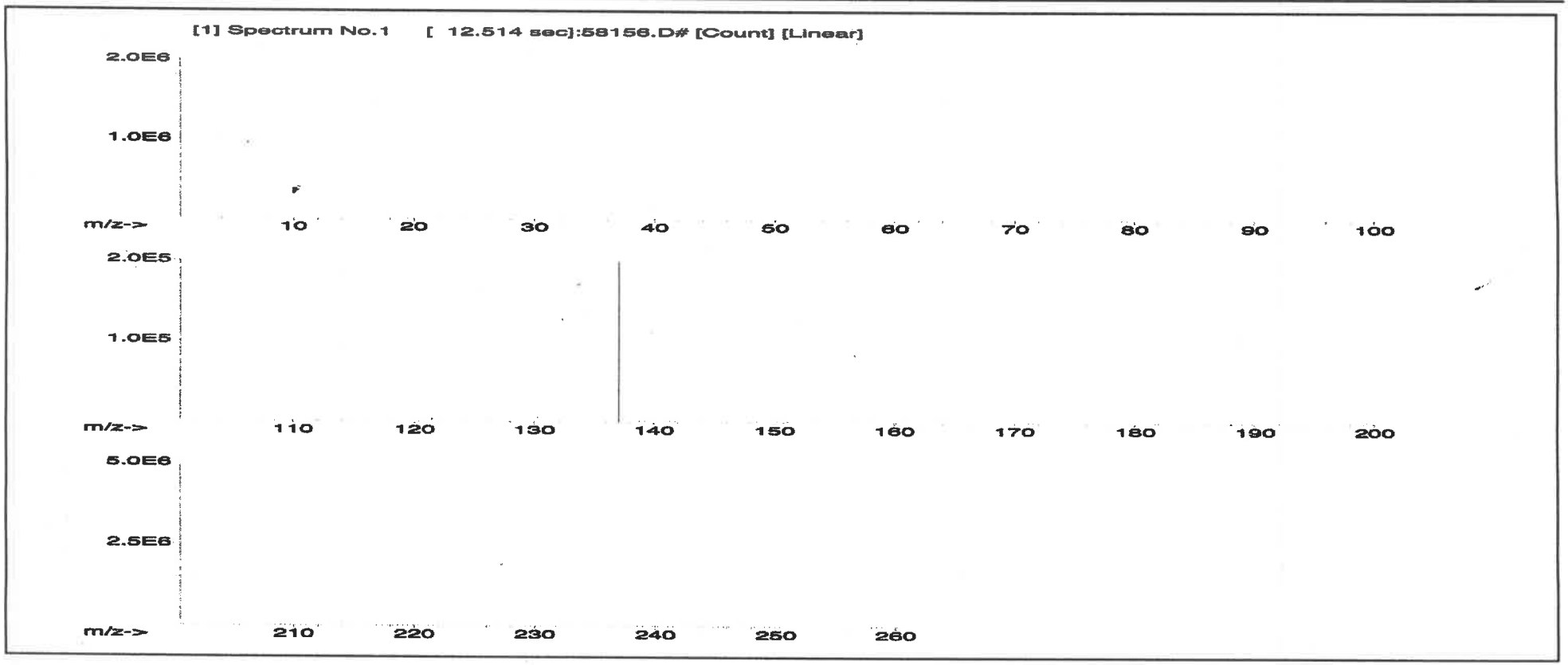
CERTIFIED WEIGHT REPORT:

Part Number:	**57056**		**Lot #**		
Lot Number:	**072122**	**Solvent:**	20510011	Nitric Acid	
Description:	**Barium (Ba)**	2%	40.0 (mL)	Nitric Acid	
Expiration Date:	072125				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Giovanni Esposito

Formulated By:	Giovanni Esposito	072122
Reviewed By:	Pedro L. Rentas	072122

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Barium nitrate (Ba)	IN023	BAD022019A1	1000	99.999	0.10	52.3	3.82417	3.82426	**1000.0**	**2.0**	10022-31-8	0.5 mg/m3	orl-rat 355 mg/kg	3104a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:



Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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M5429 R1 01/26/23 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 57103
Lot Number: 070622
Description: Lithium (Li)

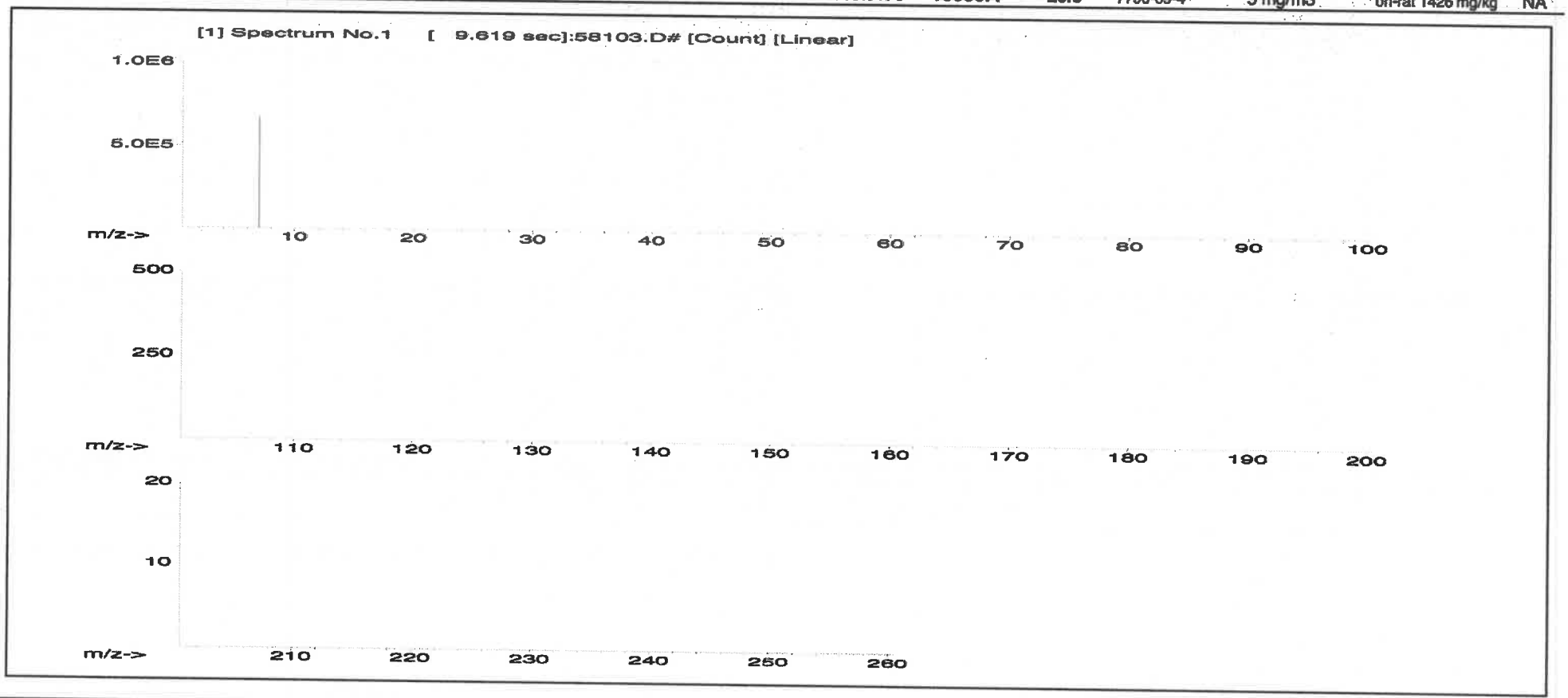
Expiration Date: 070625
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	070622
Reviewed By:	Pedro L. Rentas	070622

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lithium nitrate (Li)	IN019	LIZ042018A1	10000	99.999	0.10	10.0	100.0134	100.0173	**10000.4**	**20.0**	7790-69-4	5 mg/m3	orl-rat 1426 mg/kg	NA



Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
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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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N 5466

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R: 03/01/23 BH

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CERTIFIED WEIGHT REPORT:

Part Number: 57058
Lot Number: 061322
Description: Cerium (Ce)

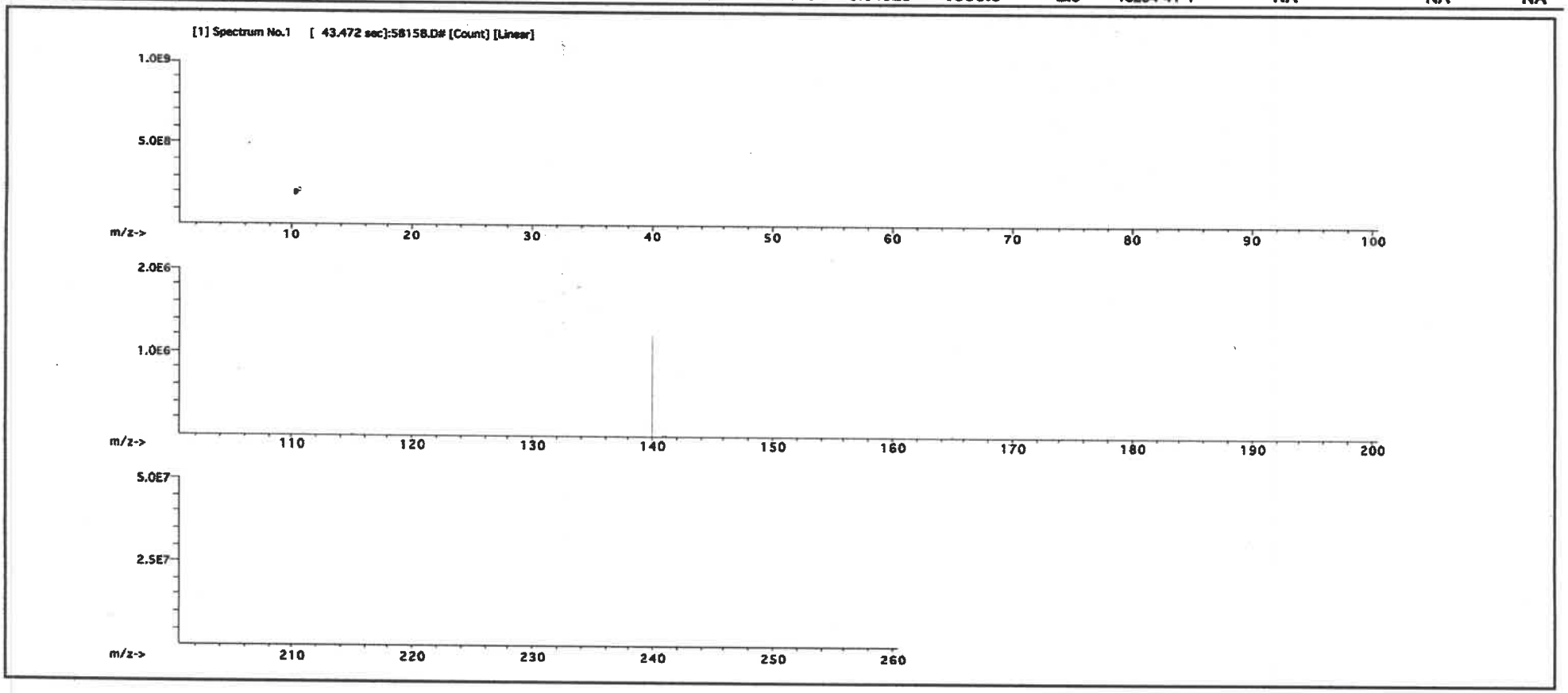
Expiration Date: 061325
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1000.12 ± 0.058 Flask Uncertainty

	Lot #		
Solvent:	20510011	Nitric Acid	
2%	20.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	061322
Reviewed By:	Pedro L. Rentas	061322

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Cerium nitrate hexahydrate (Ce)	IN146	Z512CEB1	1000	99.999	0.10	32.8	3.04919	3.04923	1000.0	2.0	10294-41-4	NA	NA	NA



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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.
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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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M5467 R: 03/01/23 (LA)

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CERTIFIED WEIGHT REPORT:

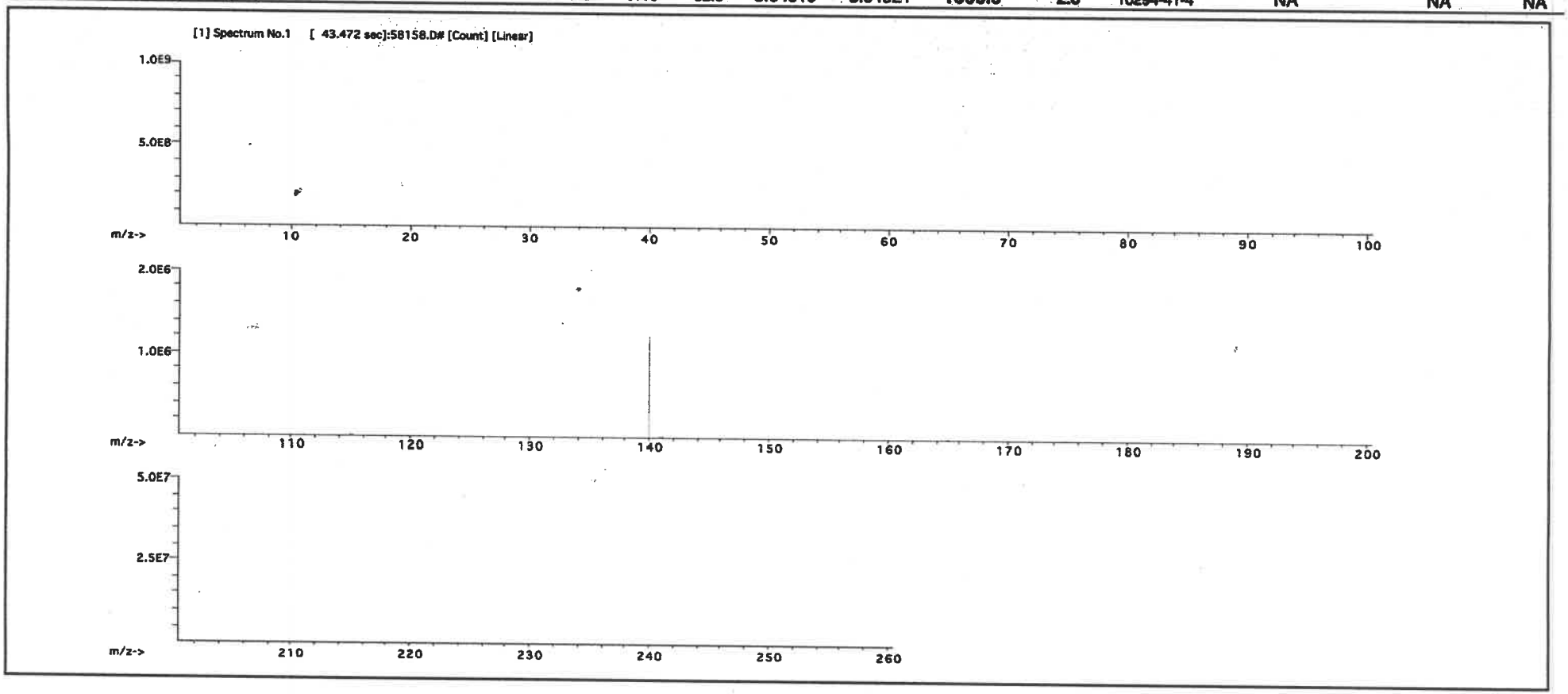
Part Number: 57058
Lot Number: 020623
Description: Cerium (Ce)

Expiration Date: 020626
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB 5E-05 Balance Uncertainty
Weight shown below was diluted to (mL): 1000.12 0.058 Flask Uncertainty

	Lot #	
Solvent:	21110221	Nitric Acid
2%	20.0 (mL)	Nitric Acid

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.
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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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M5497 - M5498 R: 03/17/23 (BP)

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CERTIFIED WEIGHT REPORT:

Part Number: 58120
Lot Number: 031523
Description: Calcium (Ca)

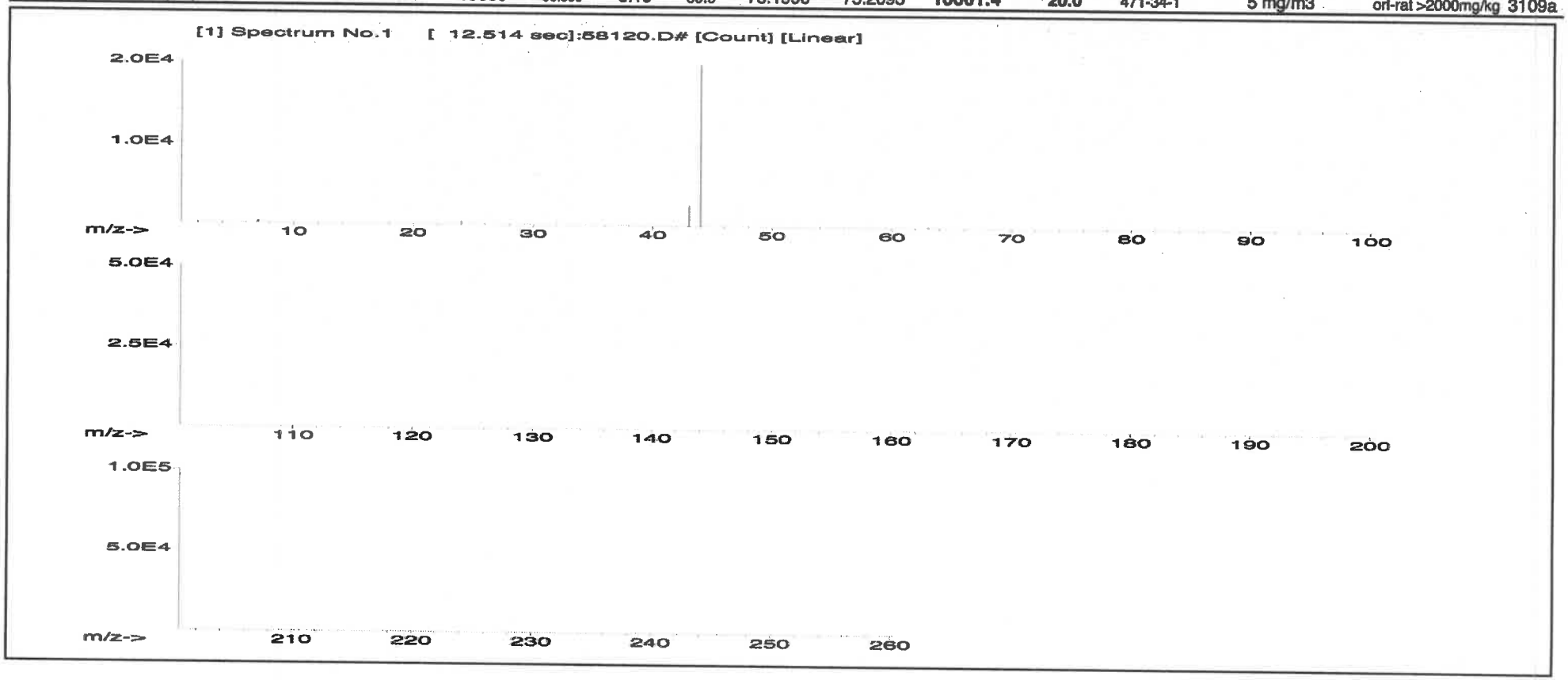
Expiration Date: 031526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41

	Lot #		
Solvent:	21110221	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	
	5E-05	Balance Uncertainty	
	0.058	Flask Uncertainty	

Giovanni Esposito
Formulated By: Giovanni Esposito 031523

Pedro Rentas
Reviewed By: Pedro L. Rentas 031523

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Calcium carbonate (Ca)	IN014	CAD072022A1	10000	99.999	0.10	39.9	75.1990	75.2093	**10001.4**	**20.0**	471-34-1	5 mg/m3	orl-rat >2000mg/kg	3109a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	T	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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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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M5514 , M5515 R: 03/17/23

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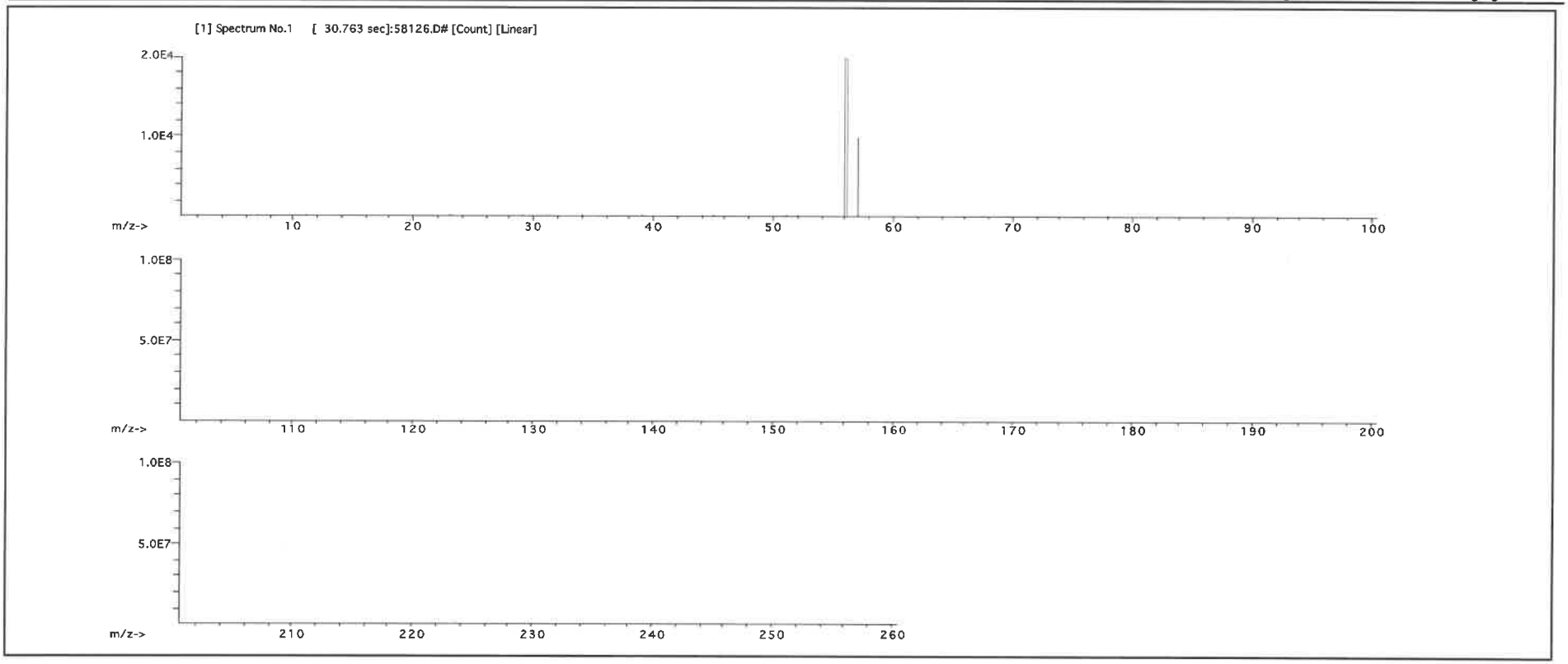
CERTIFIED WEIGHT REPORT:

Part Number:	**58126**		**Lot #**		
Lot Number:	**092122**		**Solvent:**	20510011	Nitric Acid
Description:	**Iron (Fe)**		7.0%	350.0 (mL)	Nitric Acid
Expiration Date:	092125				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	5000.1	0.12	Flask Uncertainty		

Giovanni Esposito

Formulated By:	Giovanni Esposito	092122
Reviewed By:	Pedro L. Rentas	092122

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	**Actual Conc. (µg/mL)**	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Iron (Fe)	IN346	2224912-500	10000	99.995	0.10	100.0	50.0034	50.0111	**10001.5**	**20.0**	7439-89-6	5 mg/m3	orl-rat 7500mg/kg	3126a



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																			
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.10	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.10	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.05	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.10	Ge	<0.10	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.05
B	<0.02	Cu	<0.10	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

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).

JENSEN INERT PRODUCTS

MATERIAL CERTIFICATE OF COMPLIANCE

DATE: JUNE 12, 2023

CUSTOMER:	PCI SCIENTIFIC SUPPLY, INC
PURCHASE ORDER NO.	6054931
CATALOG NO.	BOI5021-450L
PRODUCT DESCRIPTION:	BOILING STONES, TFE, 454GMS
QUANTITY:	10 EACH
LOT NO.	W126678
SPECIFICATION (S):	Made from Virgin PTFE Resin

We certify that we have complied with the terms and conditions of the above Purchase Order and the Part Specifications in the manufacturing of the above product.

Laura Valencia

Laura Valencia
Quality Assurance Inspector

F:U:J:CF:PCISCI:COC-58118-BOI5021-061223

3773 NW 126th Avenue • Coral Springs, Florida 33065 • Fax (954) 344-2008 • 1-800 446-3781
Email: jensen@jenseninert.com Visit our Web Site at www.jenseninert.com

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M5658 R ! 8/25/23

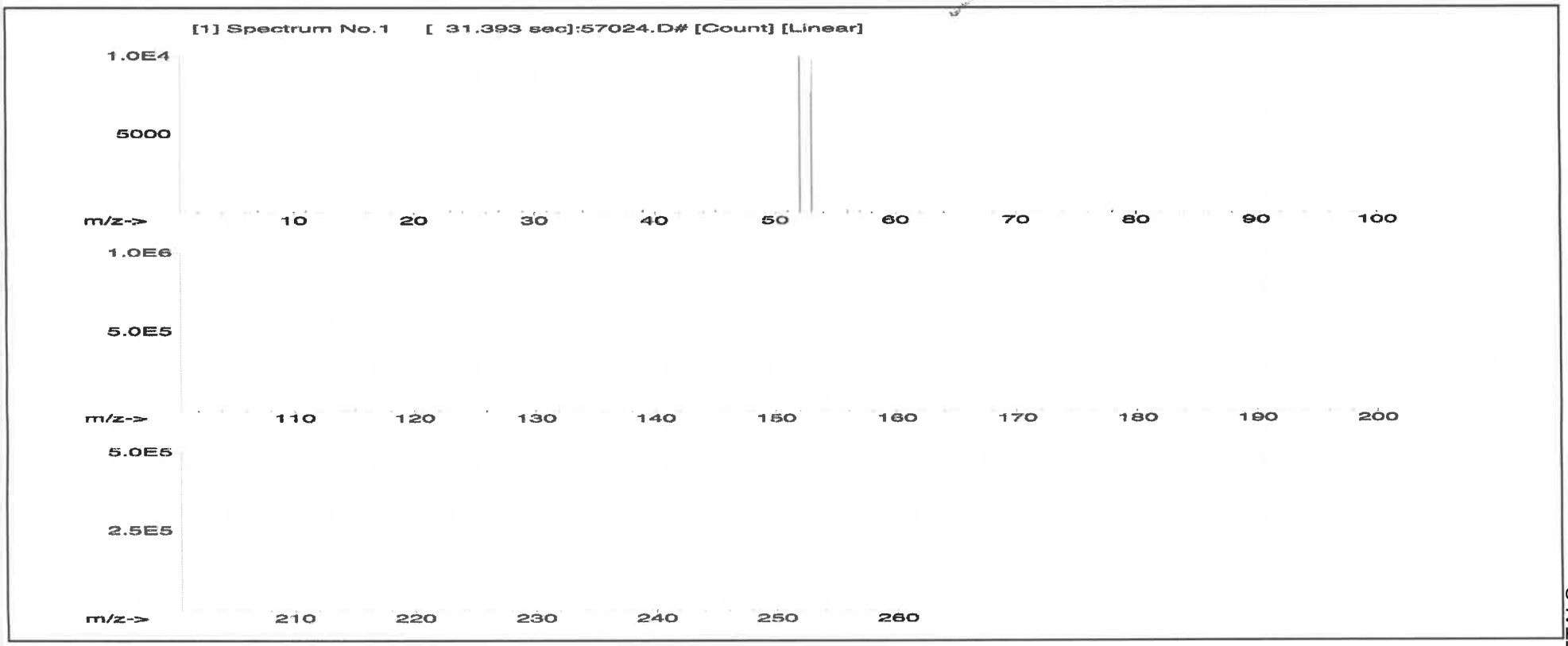
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CERTIFIED WEIGHT REPORT:

		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



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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.
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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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M5697 R: 10/27/23

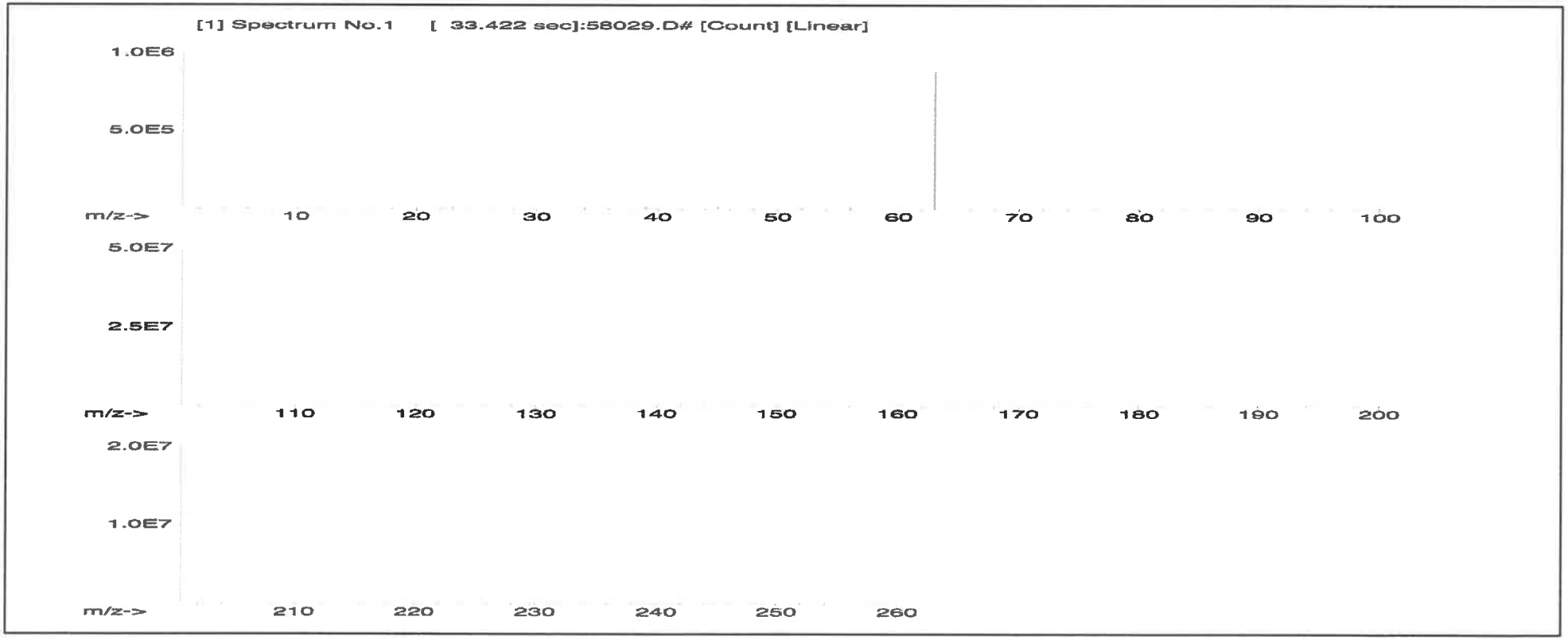
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CERTIFIED WEIGHT REPORT:

		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



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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.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
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* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* 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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M5648 R: 10/27/23

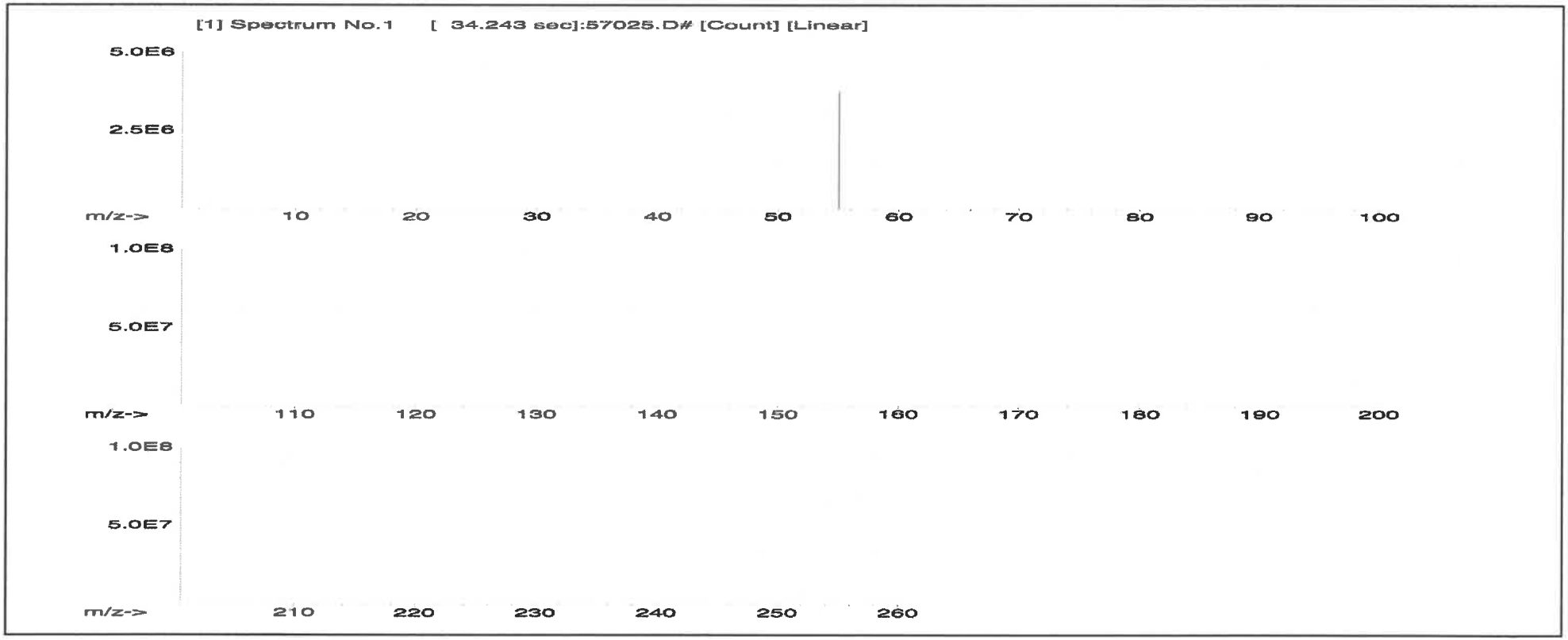
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CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**58025**	24002546	Nitric Acid	
Lot Number:	**102623**			
Description:	**Manganese (Mn)**			
		2.0%	60.0 (mL)	Nitric Acid
Expiration Date:	102626			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	3000.41	0.058	Flask Uncertainty	

Formulated By:	Benson Chan	102623
Reviewed By:	Pedro L. Rentas	102623

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. Manganese(II) nitrate tetrahydrate (Mn)	58125	071123	0.1000	300.0	0.084	1000	10000.1	**1000.0**	**2.1**	20694-39-7	5 mg/m3	orl-rat >300mg/kg	3132



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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 balances that are calibrated with weights traceable to NIST (see above).
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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 12/20/23 M5747

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CERTIFIED WEIGHT REPORT:

Part Number: 57082
Lot Number: 100923
Description: Lead (Pb)

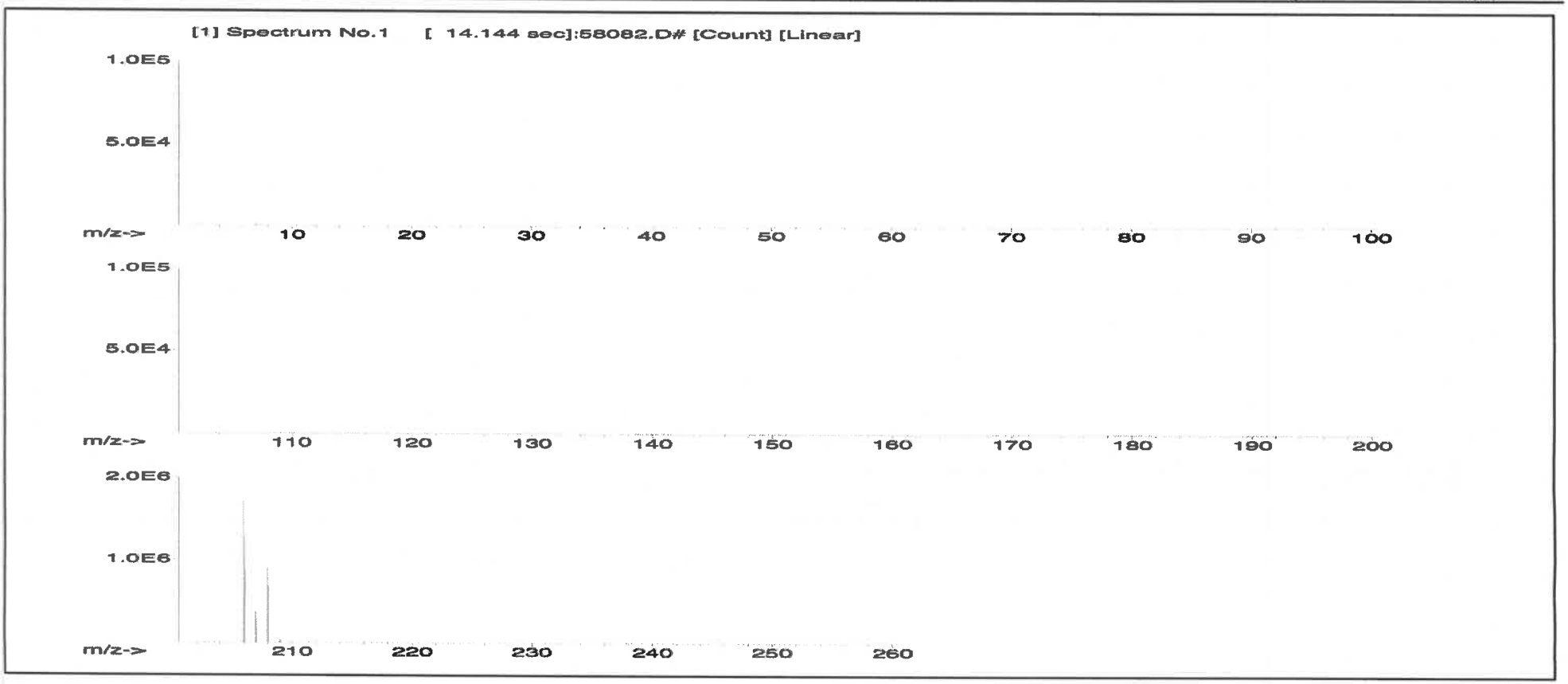
Expiration Date: 100926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 3000.41 0.06 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	60.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	Lawrence Barry	100923
Reviewed By:	Pedro L. Rentas	100923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Lead(II) nitrate (Pb)	IN029	PBD122016A1	1000	99.999	0.10	62.5	4.80071	4.80077	**1000.0**	**2.0**	10099-74-8	0.05 mg/m3	intrvns-rat 93 mg/kg	3128



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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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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 12/20/23 M5748

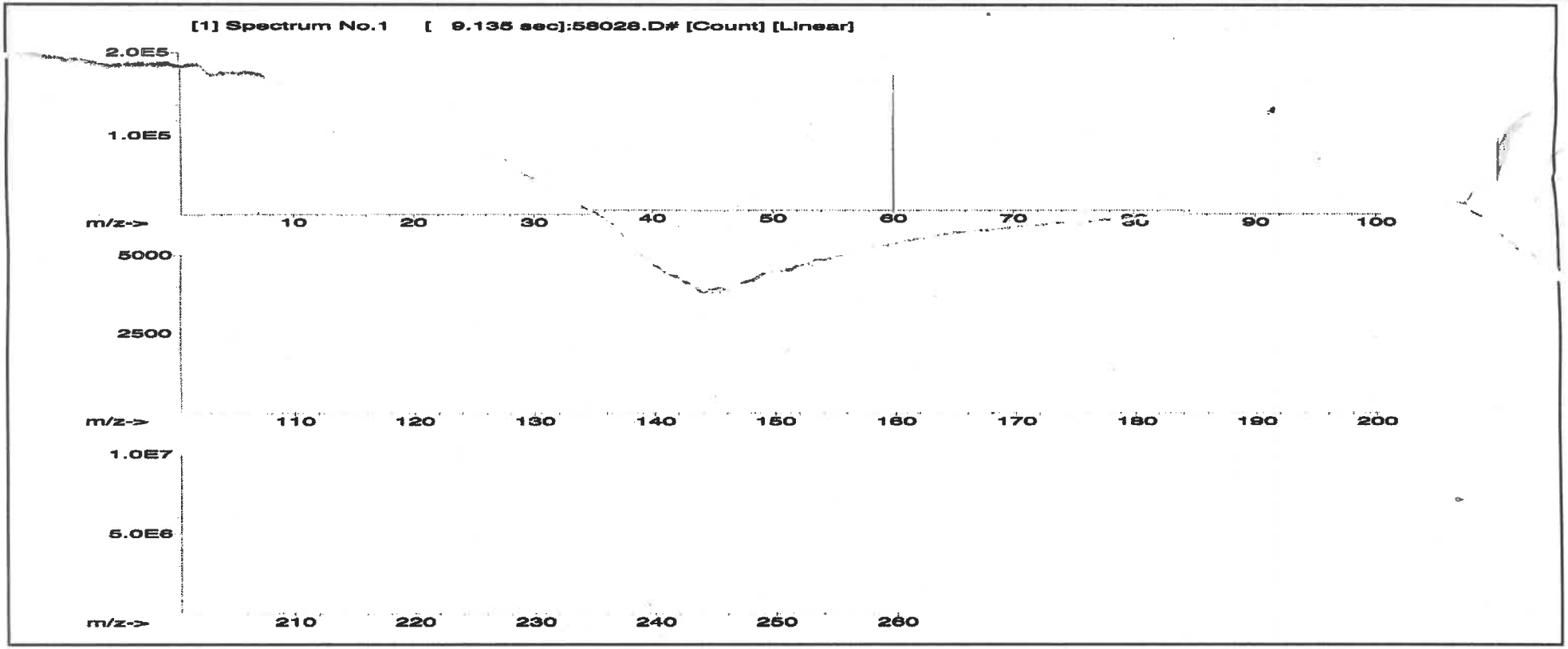
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CERTIFIED WEIGHT REPORT:

		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



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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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* 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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M5768 M5769 BP R:1/3/24

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CERTIFIED WEIGHT REPORT:

Part Number: 58112
Lot Number: 091823
Description: Magnesium (Mg)

Expiration Date: 091826
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02 ± 0.058 Flask Uncertainty

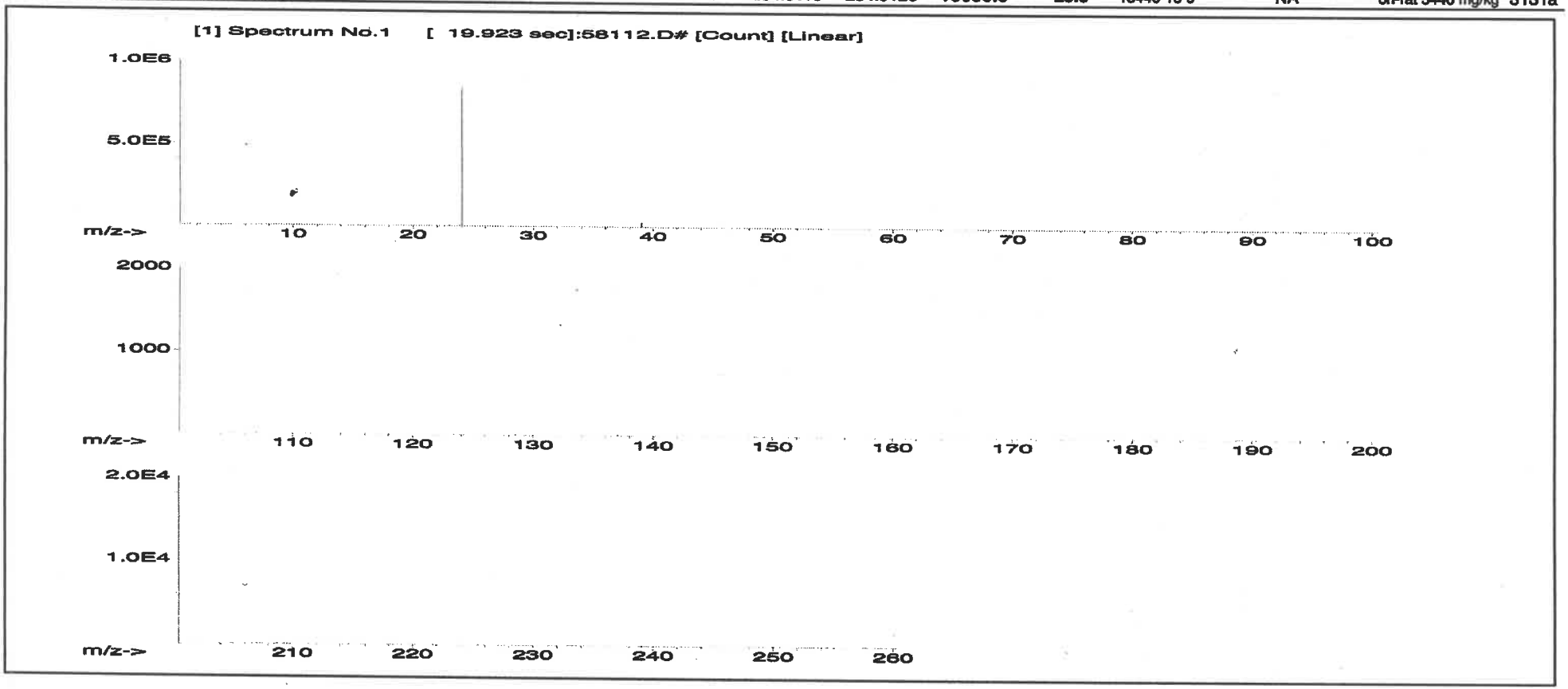
	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

M5768, M5769 BP R: 1/3/24

Formulated By:	Lawrence Barry	091823
Reviewed By:	Pedro L. Rentas	091823

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Magnesium nitrate hexahydrate (Mg)	IN030	MGD052023A1	10000	99.999	0.10	8.51	234.9118	234.9126	**10000.0**	**20.0**	13446-18-9	NA	ori-rat 5440 mg/kg	3131a



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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:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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R: 02/09/24 M5798

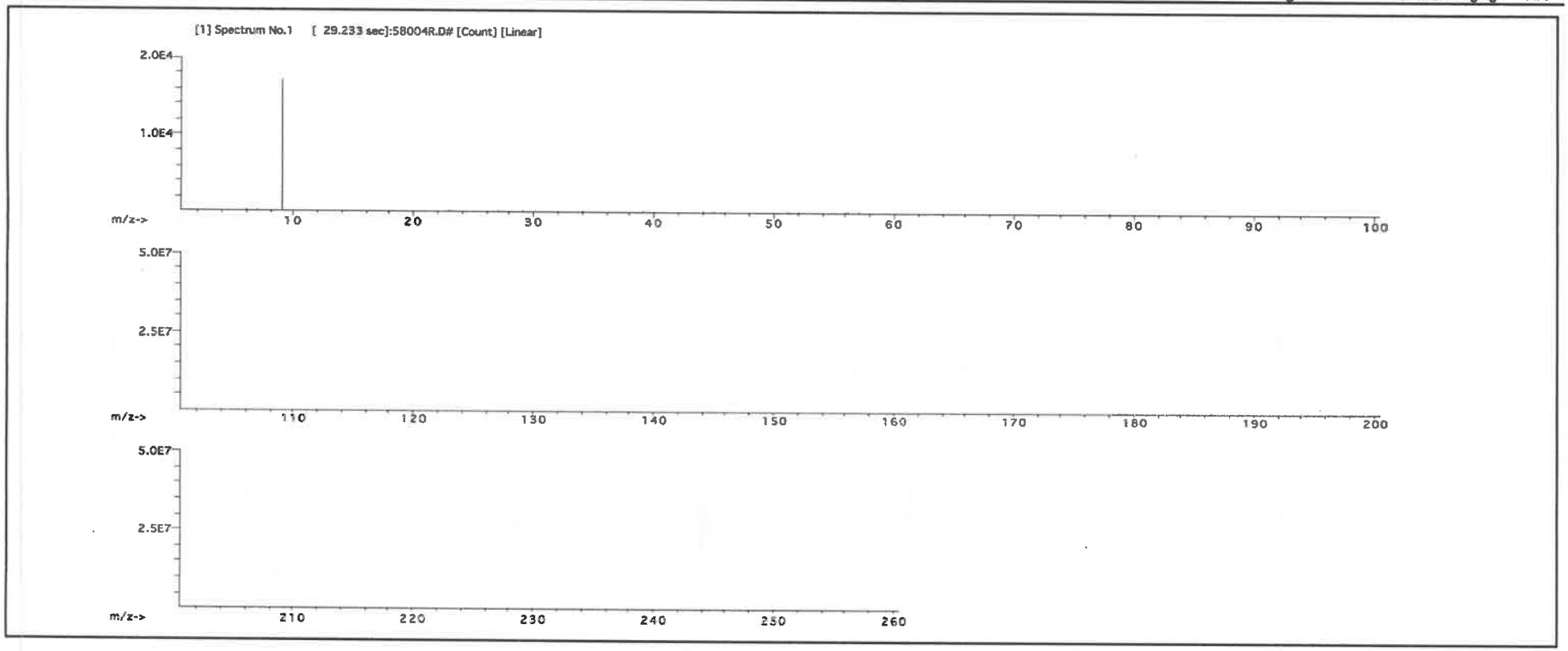
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CERTIFIED WEIGHT REPORT:

		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)

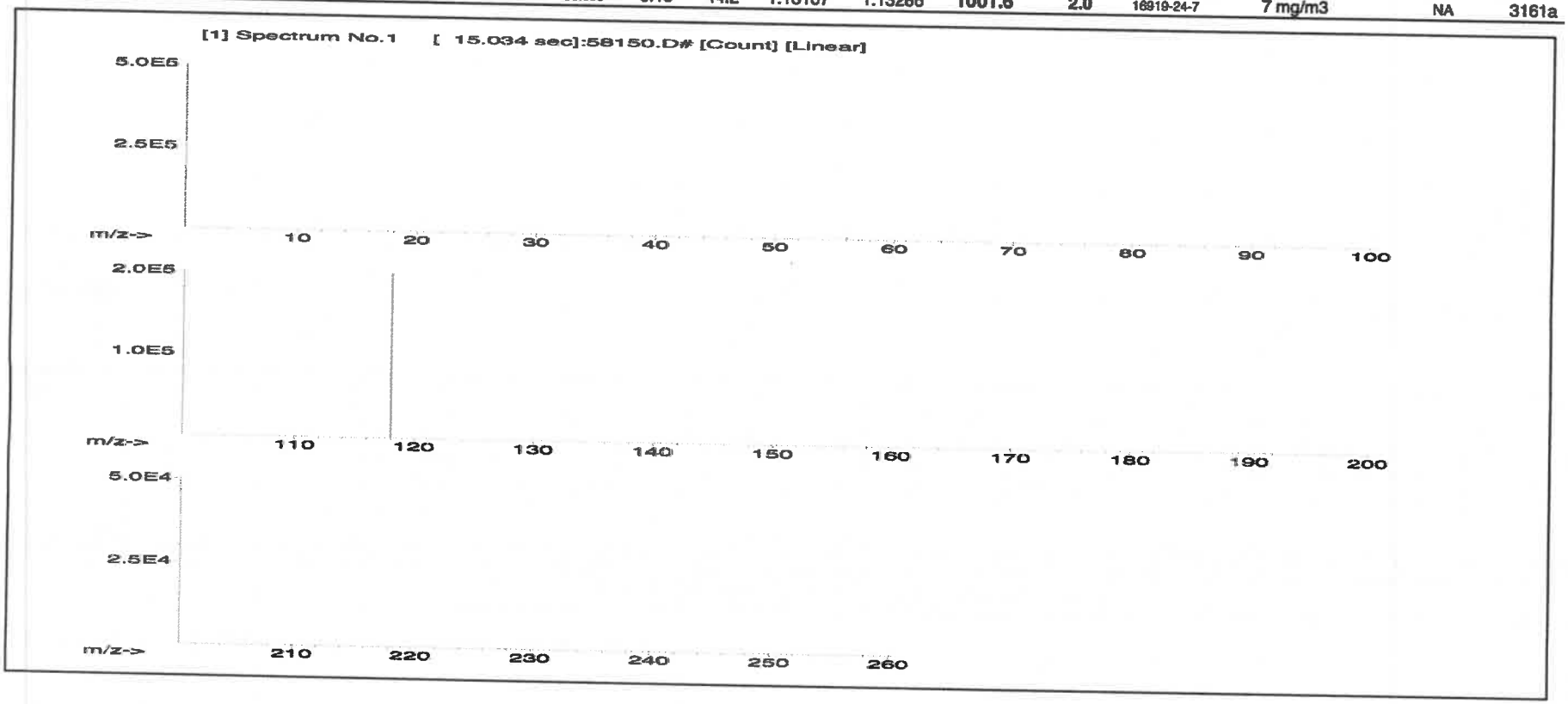
Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 499.93

Solvents:	Lot #	
	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



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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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R: 02/09/24 IM5800 BH

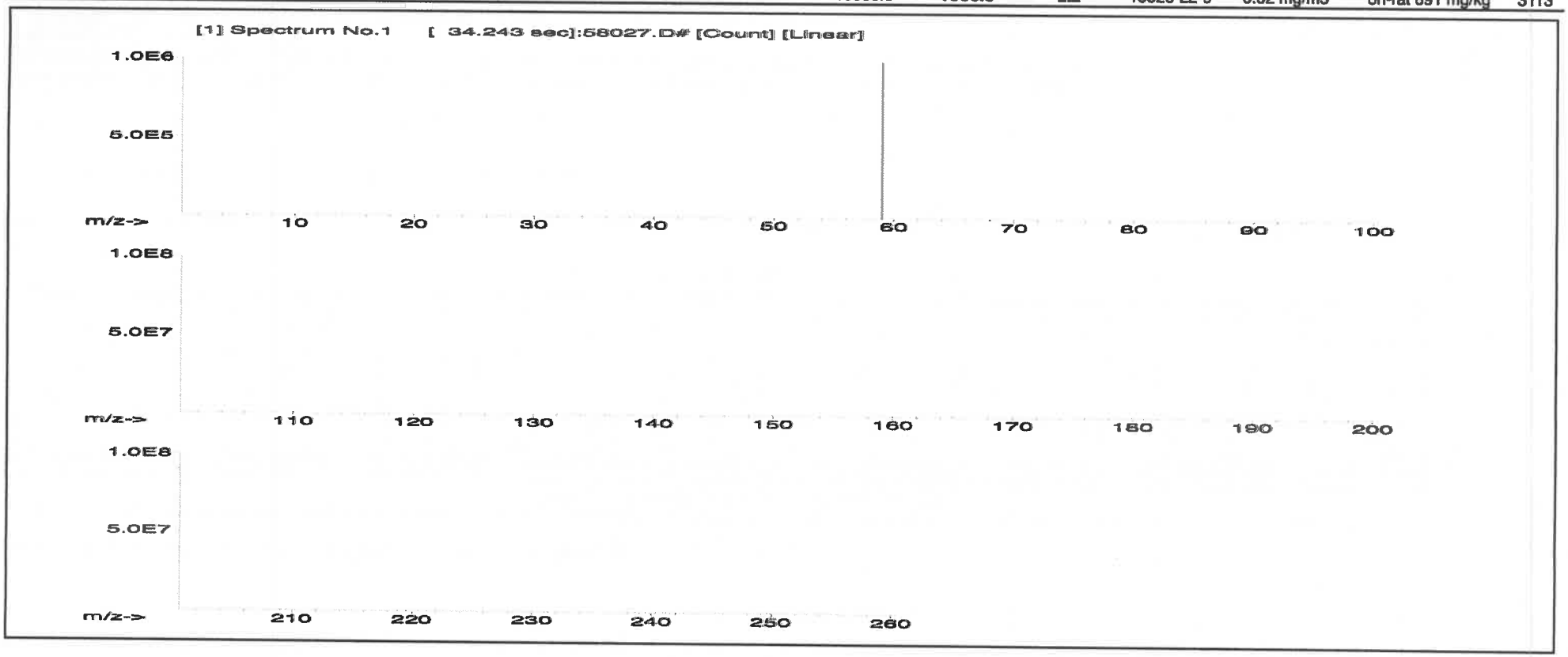
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CERTIFIED WEIGHT REPORT:

		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



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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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R: 02/09/24 M5801 BH

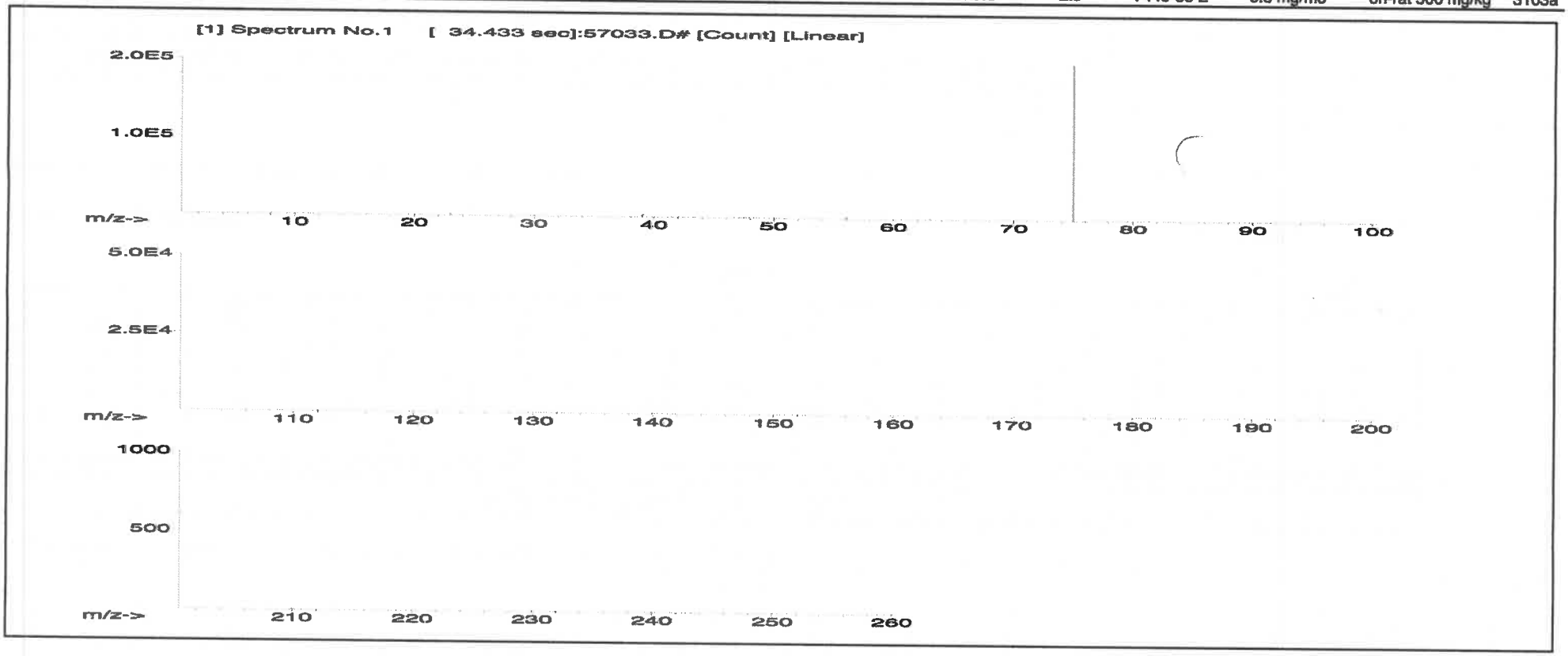
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CERTIFIED **WEIGHT** REPORT:

		Lot #	Solvent:
Part Number:	**57033**		
Lot Number:	**111323**	24002546	Nitric Acid
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



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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
Lot Number: 071123
Description: Boron (B)

Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 1999.48 0.058 Flask Uncertainty

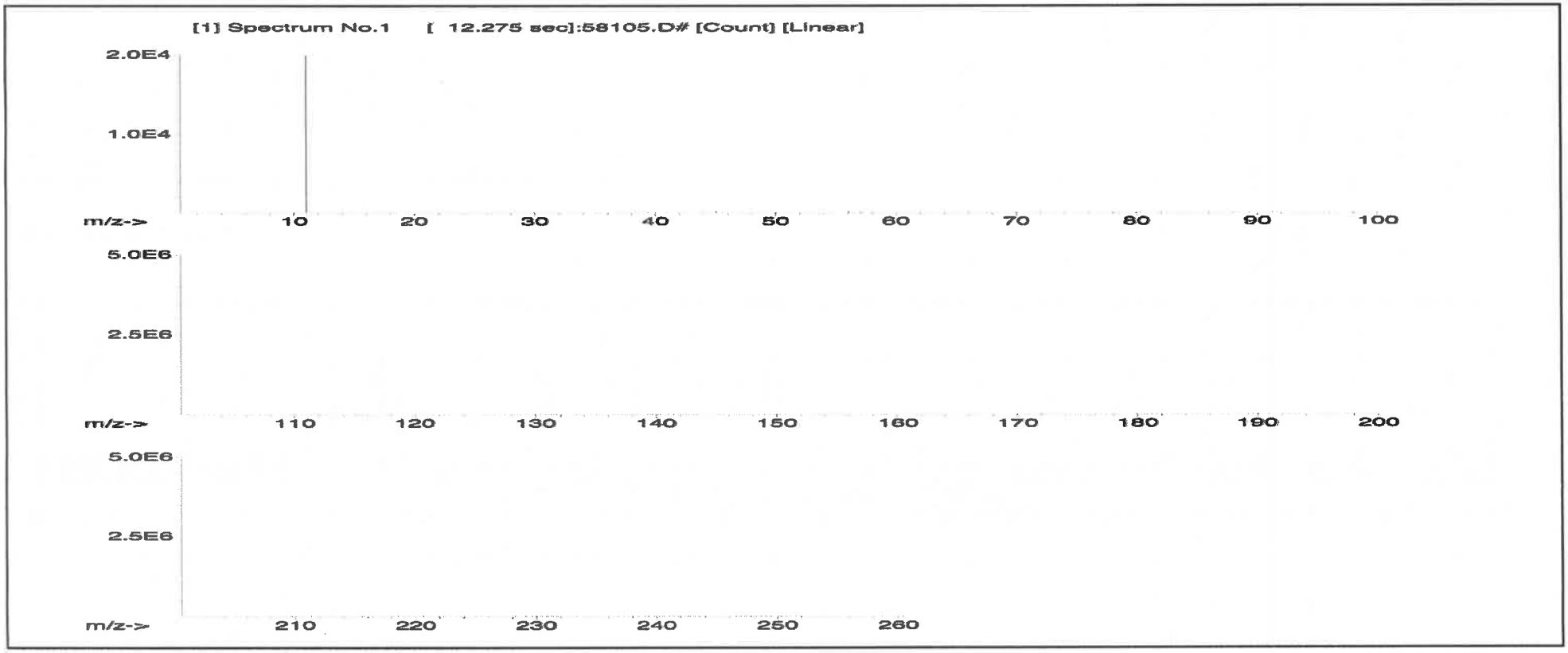
	Lot #			
Solvent:	MKBQ8597V	Ammonium hydroxide		
	2.0%	40.0 (mL)	Ammonium hydroxide	

5E-05 Balance 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



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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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R1 02/09/24. M5815

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CERTIFIED WEIGHT REPORT:

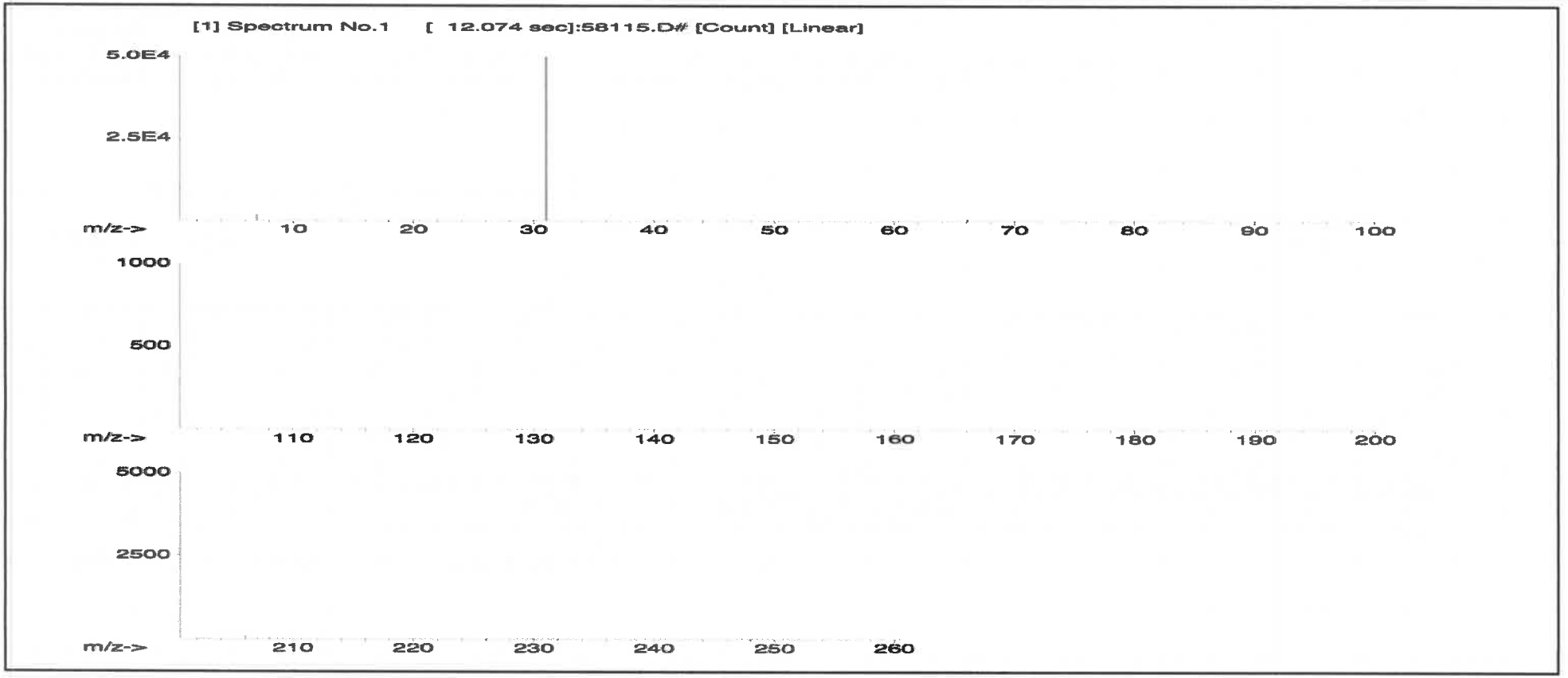
Part Number: 57115
Lot Number: 041723
Description: Phosphorous (P)

Expiration Date: 041726
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

		Lot #	
Solvent:	21110221		Nitric Acid
	2%	40.0 (mL)	Nitric Acid
		5E-05	Balance Uncertainty

Formulated By:	Lawrence Barry	041723
Reviewed By:	Pedro L. Rentas	041723

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium dihydrogen phosphate (P)	IN008	PV082019A1	10000	99.999	0.10	27.5	72.7287	72.7289	**10000.0**	**20.0**	7722-76-1	5 mg/m3	orl-rat >2000mg/kg	3186



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

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* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated 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 M5816

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CERTIFIED WEIGHT REPORT:

Part Number: 57016
Lot Number: 122923
Description: Sulfur (S)

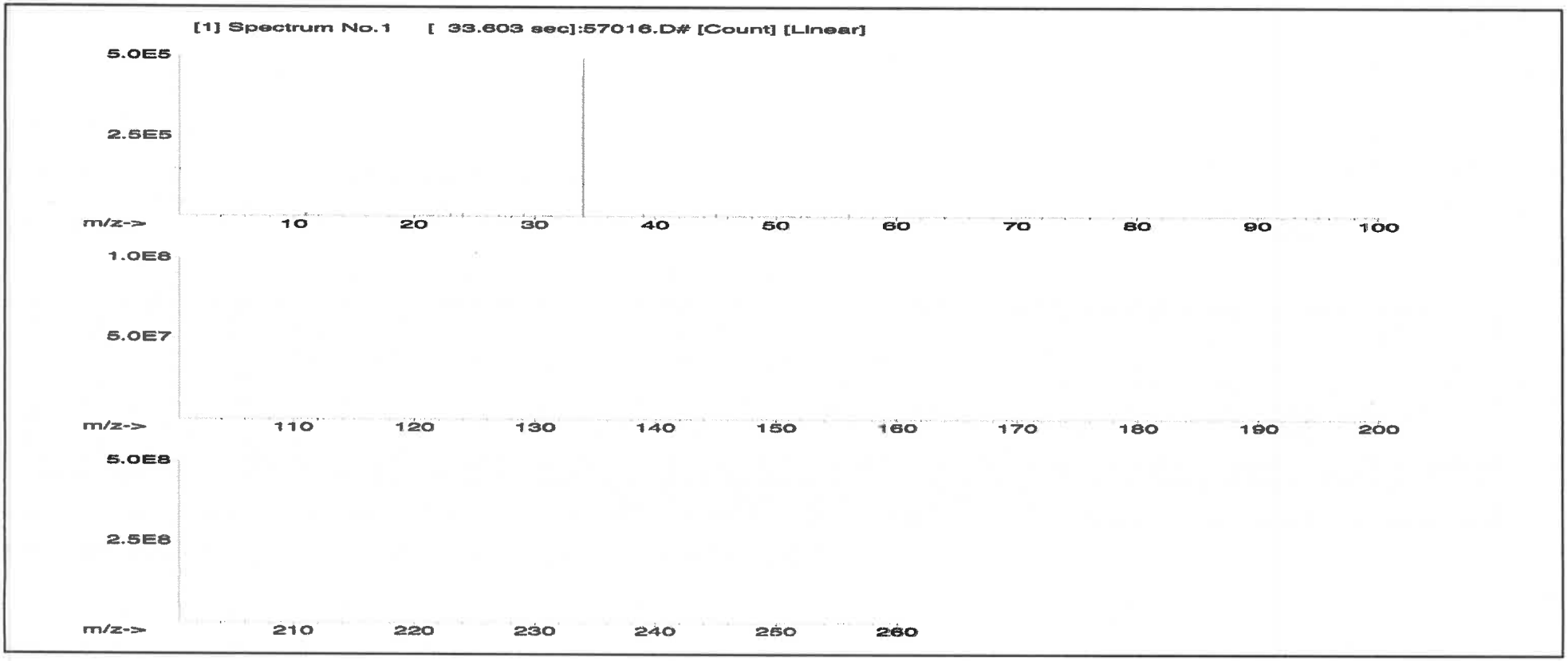
Expiration Date: 122926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 4000.0

Lot #		
Solvent:	122923	ASTM Type 1 Water
	5E-05	Balance Uncertainty
	0.06	Flask Uncertainty

Formulated By:	Benson Chan	122923
Reviewed By:	Pedro L. Rentas	122923

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	1000	99.9	0.10	24.3	16.4979	16.4980	**1000.0**	**2.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																	
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 02/09/24 M5817

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CERTIFIED WEIGHT REPORT:

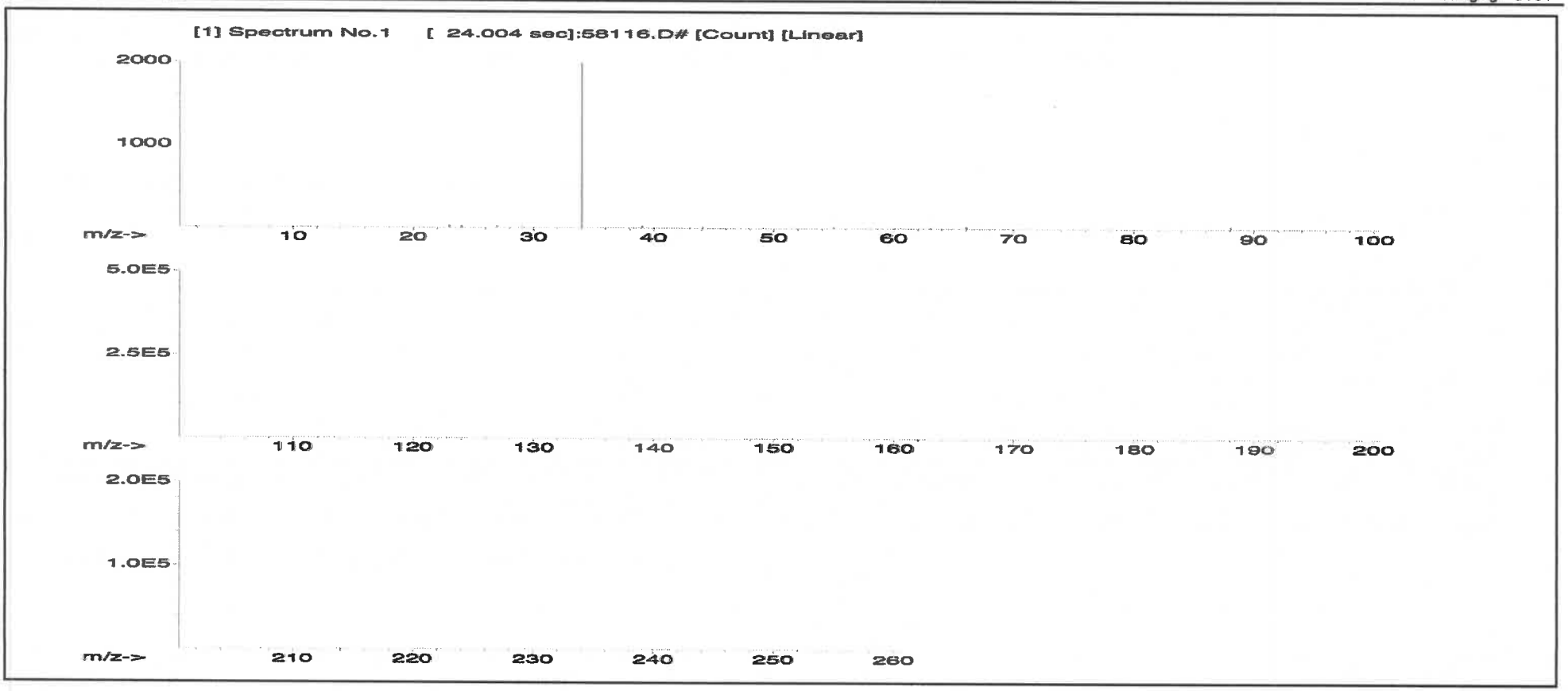
Part Number: 57116
Lot Number: 071123
Description: Sulfur (S)

Lot #
Solvent: 071123 ASTM Type 1 Water

Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB 5E-05 Balance Uncertainty
Weight shown below was diluted to (mL): 1999.48 0.058 Flask Uncertainty

Formulated By:	Lawrence Barry	071123
Reviewed By:	Pedro L. Rentas	071123

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium sulfate (S)	IN117	SLBR7225V	10000	99.9	0.10	24.3	82.4675	82.4682	**10000.1**	**20.0**	7783-20-2	NA	orl-rat 4250mg/kg	3181



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	T	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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R: 02/09/24 M.5818
Lot #

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CERTIFIED WEIGHT REPORT:

Part Number: 57014
Lot Number: 122023
Description: Silicon (Si)

Expiration Date: 122026
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1999.48 ± 0.058 Flask Uncertainty

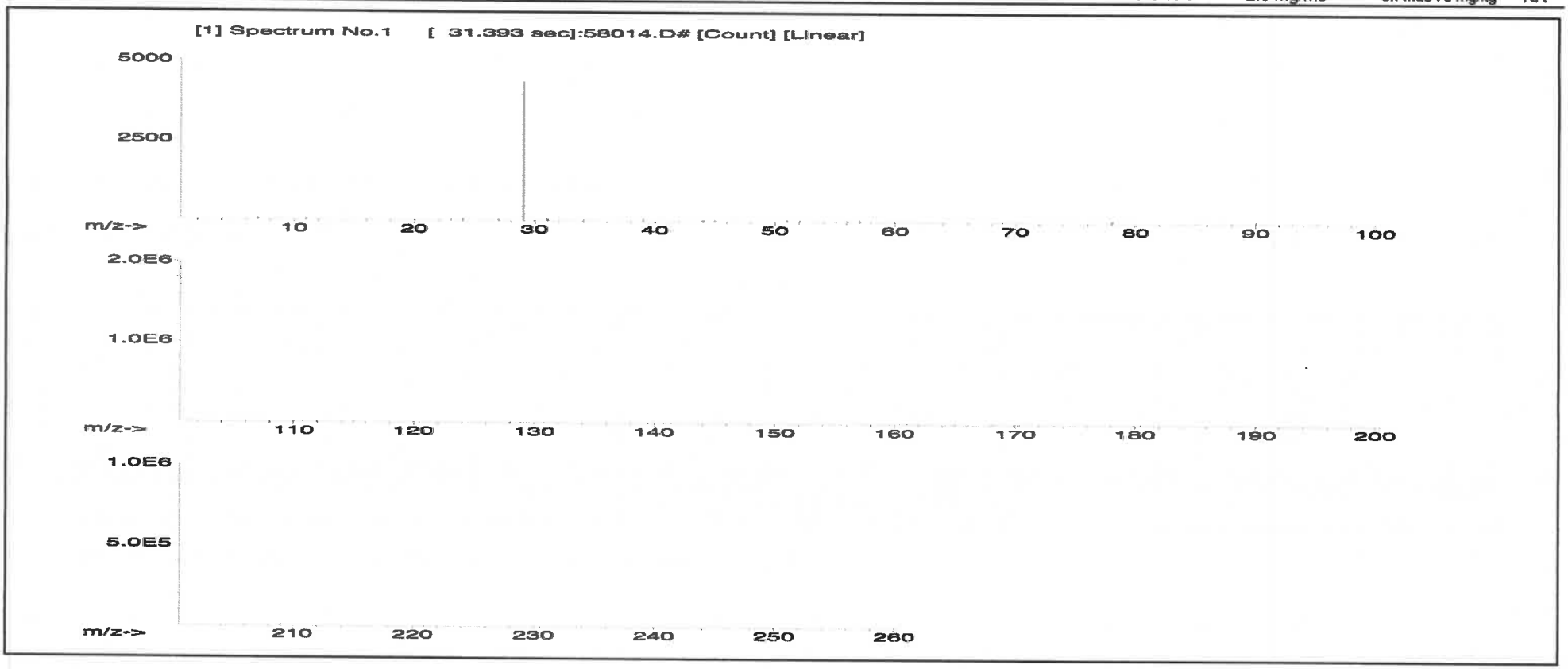
Solvent: 24002546 Nitric Acid
2% 40.0 (mL) Nitric Acid

5E-05 Balance Uncertainty

Aleah O'Brady
Formulated By: Aleah O'Brady 122023

Pedro Rentas
Reviewed By: Pedro L. Rentas 122023

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 hexafluorosilicate (Si)	IN009	SID082022A1	1000	99.999	0.10	14.4	13.8854	13.8855	**1000.0**	**2.0**	16919-19-0	2.5 mg/m3	orl-mus 70 mg/kg	NA



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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	T	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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R: 02/09/24 M5819

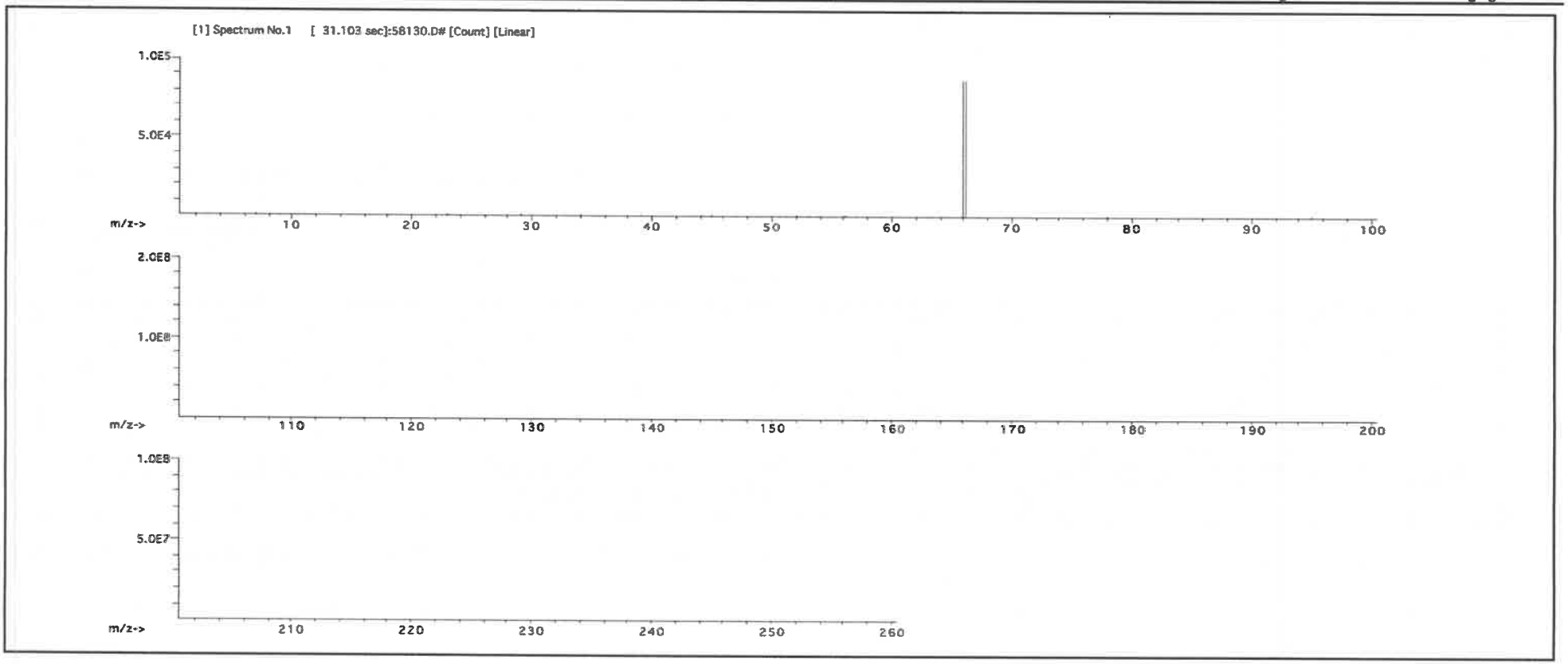
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CERTIFIED WEIGHT REPORT:

Part Number:	**58030**				
Lot Number:	**111623**				
Description:	**Zinc (Zn)**				
				Lot #	
			Solvent:	24002546	Nitric Acid
			2%	60.0 (mL)	Nitric Acid
Expiration Date:	111626				
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):	3000.4	0.06	Flask Uncertainty		

Formulated By:	Benson Chan 111623
Reviewed By:	Pedro L. Rentas 111623

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	12.3475	12.3502	**1000.2**	**2.0**	10196-18-6	1 mg/m3	orl-rat 1190mg/kg	3168



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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:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

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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).

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 02/09/24 M5820

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57015
Lot Number: 091123
Description: Phosphorous (P)

Expiration Date: 091126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

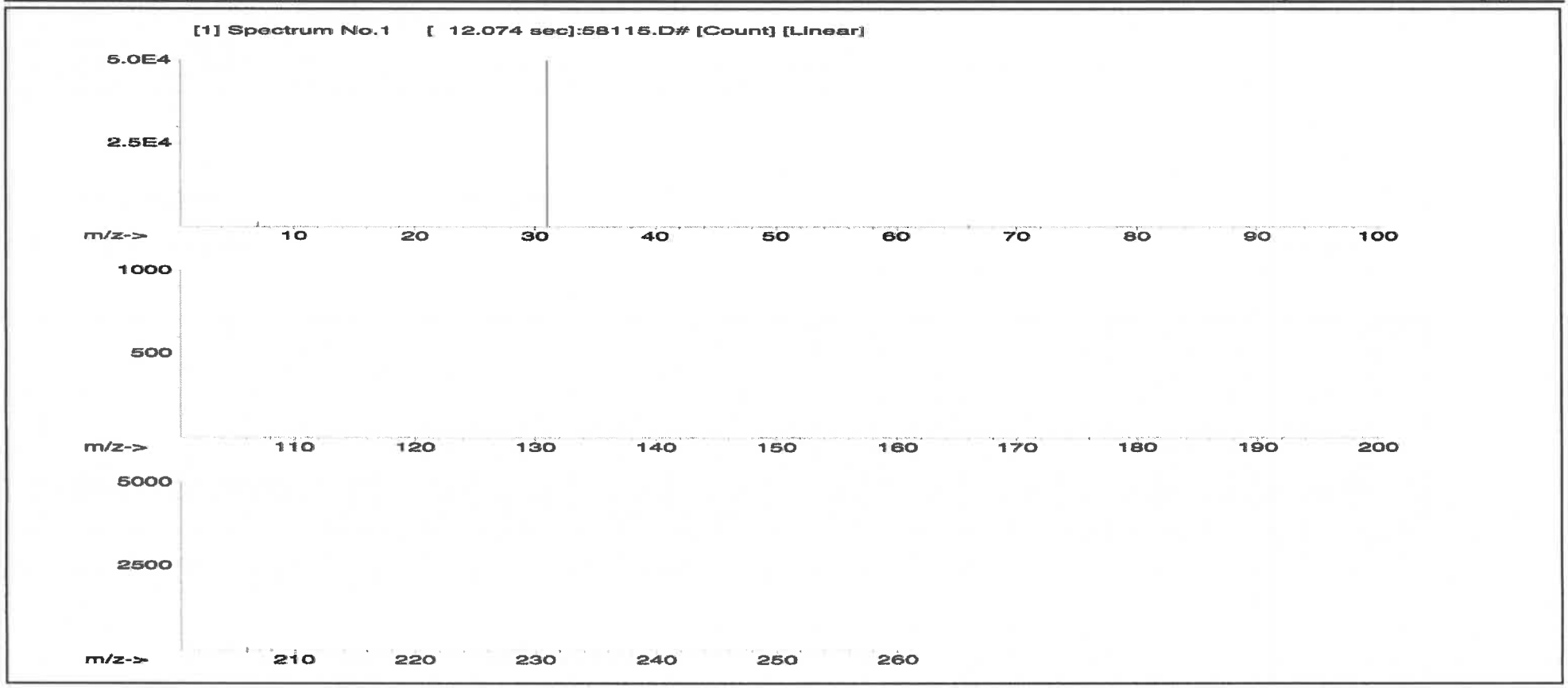
Weight shown below was diluted to (mL): 2000.02 ± 0.058 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	

5E-05 Balance Uncertainty

Formulated By:	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



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Sodium Chloride, Crystal
BAKER ANALYZED® A.C.S. Reagent

MF884
MB

avantor™ | J.T.Baker®

Material No.: 3624-01
Batch No.: 0000281938
Manufactured Date: 2021-06-07
Retest Date: 2026-06-07
Revision No.: 1

Certificate of Analysis

Test	Specification	Result
Assay (NaCl) (by Ag titrn)	≥ 99.0 %	100.0 %
pH of 5% Solution at 25°C	5.0 - 9.0	6.3
Insoluble Matter	≤ 0.005 %	0.003 %
Iodide (I)	≤ 0.002 %	< 0.002 %
Bromide (Br)	≤ 0.01 %	< 0.01 %
Chlorate and Nitrate (as NO_3)	≤ 0.003 %	< 0.001 %
ACS - Phosphate (PO_4)	≤ 5 ppm	< 5 ppm
Sulfate (SO_4)	≤ 0.004 %	< 0.004 %
Barium (Ba)	Passes Test	Passes Test
ACS - Heavy Metals (as Pb)	≤ 5 ppm	< 5 ppm
Iron (Fe)	≤ 2 ppm	< 1 ppm
Calcium (Ca)	≤ 0.002 %	< 0.001 %
Magnesium (Mg)	≤ 0.001 %	< 0.001 %
Potassium (K)	≤ 0.005 %	0.001 %

For Laboratory,Research,or Manufacturing Use
Meets Reagent Specifications for testing USP/NF monographs
Country of Origin: USA
Packaging Site: Paris Mfg Ctr & DC

James T Ethier

Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC
100 Mansford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone 610.386.1700

QATS LABORATORY INORGANIC REFERENCE MATERIAL INITIAL CALIBRATION VERIFICATION SOLUTIONS (ICV1, ICV5, AND ICV6)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

MSS28-37 MB MSS53 MB 3/30/23

Contains Metals in Dilute Acidic or Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets Available Upon Request

(A) *SAMPLE DESCRIPTION*

Enclosed is a set of one (1) or more Aqueous Inorganic Reference Materials containing various analyte concentrations. ICV1 and ICV5 are in a matrix of dilute nitric acid. ICV6 is in a matrix of dilute basic solution. **For the reference material source in reporting ICVs use "USEPA". For the reference material lot number for the ICV1, ICV5, and ICV6 solutions use "ICV1-1014", "ICV5-0415", and "ICV6-0400", respectively.**

(B) *BREAKAGE OR MISSING ITEMS*

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) *ANALYSIS OF SAMPLES*

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP, AA, and Cyanide colorimetric instruments, and are to be used with the CLP SOWs and revisions. The values for each element in the ICVs are listed below in µg/L (ppb) for the resulting solution(s) after the dilution of the concentrate(s) according to the following instructions. Use Class 'A' glassware to prepare the solution(s).

ICV1-1014 For ICP-AES analysis, use a 10-fold dilution by pipetting 10 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.

Instructions for QATS Reference Material: *Inorganic ICV Solutions*

ICV1-1014 For ICP-MS analysis, use a 50-fold dilution by pipetting 2 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.

ICV5-0415 For the cold vapor analysis of mercury by AA, use a 100-fold dilution by pipetting 1 mL of the ICV5 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v) $K_2Cr_2O_7$ and 5% (v/v) nitric acid.

ICV6-0400 For the analysis of cyanide, use a 100-fold dilution by pipetting 1 mL of the ICV6 concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from $K_3Fe(CN)_6$, Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

NOTE: USE TYPE II WATER AND HIGH-PURITY ACIDS FOR ALL DILUTIONS.

(D) *CERTIFIED CONCENTRATIONS OF QATS ICV1, ICV5, AND ICV6 SOLUTIONS*

ICV1-1014		
Element	**Concentration (µg/L) (after 10-fold dilution)**	**Concentration (µg/L) (after 50-fold dilution)**
Al	2500	500
Sb	1000	200
As	1000	200
Ba	520	100
Be	510	100
Cd	510	100
Ca	10000	2000
Cr	520	100
Co	520	100
Cu	510	100
Fe	10000	2000
Pb	1000	200
Mg	6000	1200
Mn	520	100
Ni	530	110
K	9900	2000
Se	1000	200
Ag	250	50
Na	10000	2000
Tl	1000	210
V	500	100
Zn	1000	200

ICV5-0415		ICV6-0400	
Element	**Concentration (µg/L) (after 100-fold dilution)**	**Analyte**	**Concentration (µg/L) (after 100-fold dilution)**
Hg	4.0	CN^-	99

INORGANIC VENTURES
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Certificate of Analysis

M5959 R: 6/14/24.

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

ACCREDITED Testing Laboratory Certificate 863.01
ACCREDITED Reference Material Producer Certificate 863.02

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGY10
Lot Number:	V2-Y740548
Matrix:	2% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Yttrium
Starting Material:	Yttrium Oxide
Starting Material Lot#:	2661 and 06230520YL
Starting Material Purity:	99.9984%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10000 ± 30 µg/mL

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10011 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #2	**9997 ± 50 µg/mL** ICP Assay NIST SRM 3167a Lot Number: 190730
Assay Method #3	**9984 ± 31 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\,(u_{char\ i})^2)]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\,(u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\,(u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{1/2}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.004600	M	Eu		0.009037	M	Na		0.086360	M	Se	<	0.005200	M	Zn		0.030125
M	Al		0.014862	O	Fe		0.002410	M	Nb	<	0.000570	O	Si		0.024100	O	Zr	<	0.002600
M	As	<	0.003500	M	Ga	<	0.000570	M	Nd		0.000923	M	Sm		0.000461				
M	Au	<	0.001700	M	Gd	<	0.003500	M	Ni	<	0.005700	M	Sn	<	0.002300				
O	B		0.002209	M	Ge	<	0.005200	M	Os	<	0.001200	M	Sr	<	0.004600				
O	Ba	<	0.002500	M	Hf	<	0.000570	n	P	<		M	Ta	<	0.000570				
O	Be	<	0.001400	M	Hg	<	0.000570	M	Pb		0.005020	M	Tb		0.001044				
M	Bi	<	0.003500	M	Ho		0.009037	M	Pd	<	0.005100	M	Te	<	0.002300				
O	Ca		0.009841	M	In	<	0.002300	M	Pr	<	0.002300	M	Th	<	0.000570				
M	Cd	<	0.000570	M	Ir	<	0.000570	M	Pt	<	0.000570	M	Ti	<	0.003500				
M	Ce	<	0.002300	O	K		0.018677	M	Rb	<	0.000570	M	Tl	<	0.000570				
M	Co	<	0.000570	M	La		0.000461	M	Re	<	0.000570	M	Tm	<	0.003500				
M	Cr	<	0.004000	O	Li	<	0.009300	M	Rh	<	0.008000	M	U	<	0.000570				
M	Cs	<	0.000570	M	Lu		0.000582	M	Ru	<	0.000570	M	V		0.001265				
M	Cu		0.002610	O	Mg		0.001486	n	S	<		M	W	<	0.002300				
M	Dy		0.003815	M	Mn		0.000582	M	Sb		0.005422	s	Y	<					
M	Er		0.003615	M	Mo	<	0.005700	M	Sc	<	0.001200	M	Yb		0.001827				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 88.91 +3 6 Y(OH)(H2O)x+2

Chemical Compatibility -Soluble in HCl, H2SO4 and HNO3. Avoid HF, H3PO4 and neutral to basic media. Stable with most metals and inorganic anions forming an insoluble carbonate, oxide, oxalate, and fluoride. Avoid mixing with elements / solutions containing moderate amounts of fluoride.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

Y Containing Samples (Preparation and Solution) - Metal (Soluble in acids); Oxide (Dissolve by heating in H2O/ HNO3); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolve in 1:1 H2O / HCl or HNO3).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 89 amu	0.8 ppt	N/A	73Ge16O, 178Hf+2
ICP-OES 360.073 nm	0.005 / 0.000036 µg/mL	1	Ce, Th
ICP-OES 371.030 nm	0.004 / 0.00007 µg/mL	1	Ce
ICP-OES 377.433 nm	0.005 / 0.0009 µg/mL	1	Ta, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 20, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 20, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor



Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



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www.absolutestandards.com

Certified Reference Material CRM

M5962 R! 06/14/24.

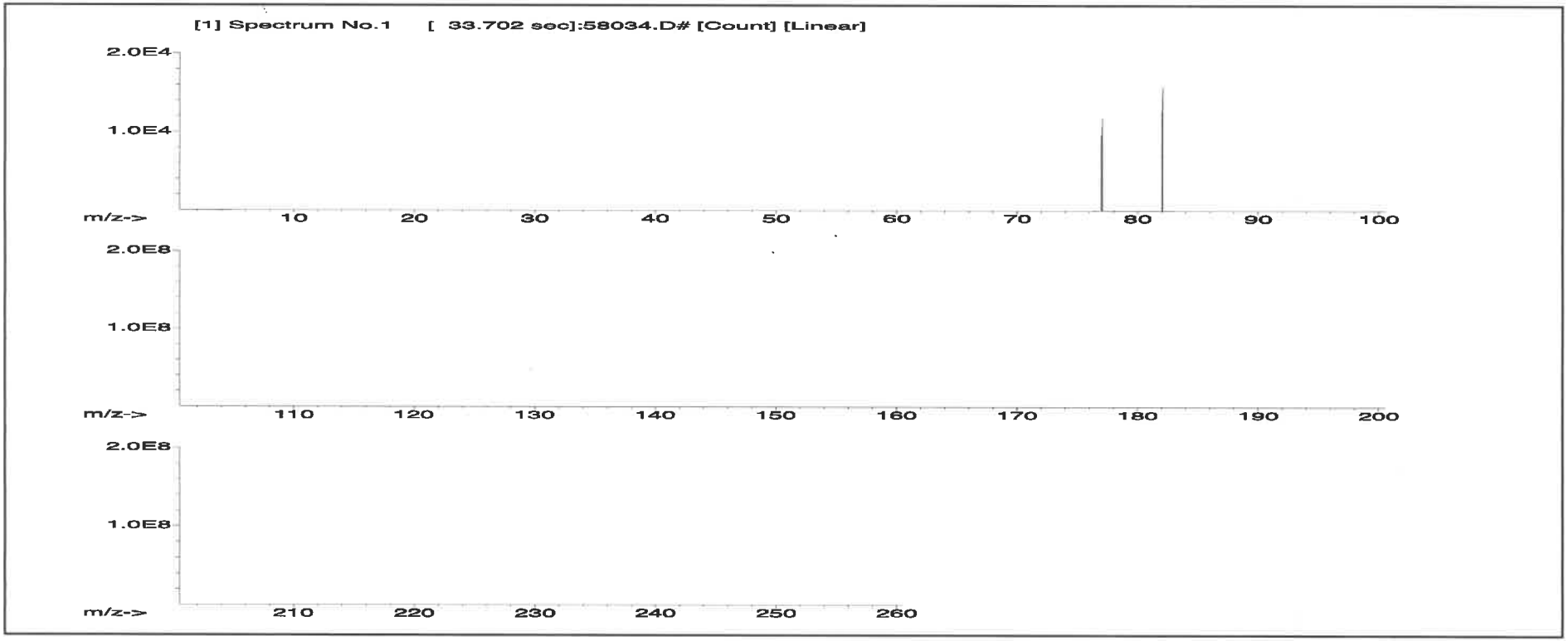
ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57034**	24002546	Nitric Acid	
Lot Number:	**060624**			
Description:	**Selenium (Se)**			
		2.0%	40.0 (mL)	Nitric Acid
Expiration Date:	060627			
Recommended Storage:	Ambient (20 °C)			
Nominal Concentration (µg/mL):	**1000**			
NIST Test Number:	6UTB	5E-05	Balance Uncertainty	
Volume shown below was diluted to (mL):	2000.07	0.100	Flask Uncertainty	

Formulated By:	Benson Chan	060624
Reviewed By:	Pedro L. Rentas	060624

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Selenium (Se)	58134	071223	0.1000	200.0	0.084	1000	10002.5	**1000.0**	**2.2**	7782-49-2	0.2 mg/m3	orl-rat 6700 mg/kg	3149



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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:

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

M5970, M5971 R: 7/01/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

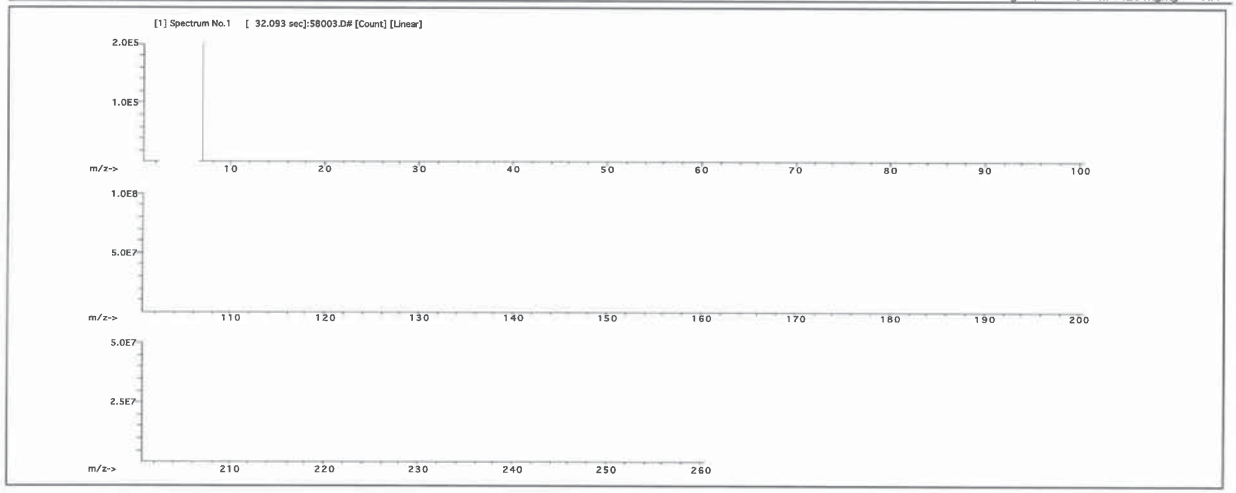
Part Number: 57003
Lot Number: 062124
Description: Lithium (Li)
Expiration Date: 062127
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 250.11

Lot #	Solvent:			
24002546	Nitric Acid			
2.0%	5.0 (mL)	Nitric Acid		
			5E-05	Balance Uncertainty
			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



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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	T	Ni	<0.02	Pr	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:



* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
* All standard containers are meticulously cleaned prior to use.
* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
* Standards are certifed (+/-) 0.5% of the stated value, unless otherwise stated.
* All Standards should be stored with caps tight and under appropriate laboratory conditions.
* Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

MS978, MS979

Certificate of Analysis

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R: 2/22/24

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

2.0 PRODUCT DESCRIPTION

Product Code:	Single Analyte Custom Grade Solution
Catalog Number:	CGTI1
Lot Number:	T2-TI719972
Matrix:	2% (v/v) HNO3 tr. HF
Value / Analyte(s):	1 000 µg/mL ea: Titanium
Starting Material:	TI Metal
Starting Material Lot#:	2094
Starting Material Purity:	99.9975%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL

Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**1002 ± 4 µg/mL**
	ICP Assay NIST SRM 3162a Lot Number: 130925

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \Sigma(w_i)\,(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{Char\,i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance

$$w_i = (1/u_{Char\,i})^2 \,/\, (\Sigma(1/u_{Char\,i})^2)$$

CRM/RM Expanded Uncertainty ($\pm$) = $U_{CRM/RM} = k\,(u^2_{Char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

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:

$$X_{CRM/RM} = (\Sigma x_a)\,(n_{Char\,a})$$

X_a = mean of Assay Method A with $n_{Char\,a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty ($\pm$) = $U_{CRM/RM} = k\,(u^2_{Char\,a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{Char\,a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000536	M	Eu	<	0.000268	O	Na	<	0.032670	M	Se		0.001204	O	Zn	<	0.003267
O	Al		0.000872	O	Fe		0.003225	O	Nb	<	0.043560	O	Si		0.004735	O	Zr	<	0.043560
M	As	<	0.008586	M	Ga	<	0.000268	M	Nd	<	0.000268	M	Sm	<	0.000268				
M	Au	<	0.004577	M	Gd	<	0.000268	O	Ni	<	0.010890	M	Sn		0.000096				
O	B	<	0.008929	M	Ge	<	0.002146	M	Os	<	0.000269	O	Sr		0.000096				
M	Ba	<	0.002683	M	Hf		0.002161	O	P	<	0.054450	M	Ta		0.010560				
M	Be	<	0.005366	M	Hg	<	0.003231	M	Pb	<	0.001073	M	Tb	<	0.000268				
M	Bi	<	0.001609	M	Ho	<	0.000268	M	Pd	<	0.000268	M	Te	<	0.001341				
O	Ca		0.000676	M	In	<	0.002683	M	Pr	<	0.000268	M	Th	<	0.053663				
M	Cd	<	0.000268	M	Ir	<	0.000269	M	Pt	<	0.000536	s	Ti	<					
M	Ce	<	0.000268	M	K		0.001172	M	Rb	<	0.000268	M	Tl	<	0.000268				
M	Co	<	0.004293	M	La	<	0.000268	M	Re	<	0.000268	M	Tm	<	0.000268				
M	Cr		0.000752	O	Li	<	0.027225	M	Rh	<	0.000268	M	U	<	0.000268				
M	Cs	<	0.000268	M	Lu	<	0.000268	M	Ru	<	0.000269	M	V	<	0.019855				
O	Cu	<	0.010890	O	Mg	<	0.005445	i	S	<		M	W		0.000473				
M	Dy	<	0.000268	O	Mn	<	0.003267	M	Sb	<	0.006976	M	Y	<	0.002146				
M	Er	<	0.000268	M	Mo		0.000774	O	Sc	<	0.004900	M	Yb	<	0.000536				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 47.87 +4 6 Ti(F)6-2

Chemical Compatibility - Soluble in concentrated HCl, HF, H3PO4 H2SO4 and HNO3. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths or high levels of transition elements unless they are fluorinated). Stable with most inorganic anions with a tendency to hydrolyze forming the hydrated oxide in all dilute acids except HF.

Stability - 2-100 ppb levels stable (Alone or mixed with all other metals) as the Ti(F)6-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the Ti(F)6-2 chemically stable for years in 2-5% HNO3 / trace HF in an LDPE container.

Ti Containing Samples (Preparation and Solution) - Metal (Soluble in H2O / HF caution -powder reacts violently); Oxide - low temperature history anatase or rutile (Dissolved by heating in 1:1:1 H2O / HF / H2SO4); Oxide - high temperature history (~800EC) brookite (fuse in Pt0 with K2S2O7); Ores (fuse in Pt0 with KF + K2S2O7 - no KF if silica not present); Organic Matrices (Dry ash at 450EC in Pt0 and dissolve by heating with 1:1:1 H2O / HF / H2SO4 or fuse ash with pyrosulfate if oxide is as plastic pigment and likely in brookite crystalline form).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 48 amu	14 ppt	N/A	32S16O, 32S14N, 14N16O18O, 14N17N2, 36Ar12C, 48Ca, [96X=2 (where X = Zr, Mo, Ru)]
ICP-OES 323.452 nm	0.0054 / 0.00092 µg/mL	1	Ce, Ar, Ni
ICP-OES 334.941 nm	0.0038 / 0.000028 µg/mL	1	Nb, Ta, Cr, U
ICP-OES 336.121 nm	0.0053 / 0.000034 µg/mL	1	W, Mo, Co

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- June 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control

Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

45982 R: 6/11/24

CERTIFIED WEIGHT REPORT:

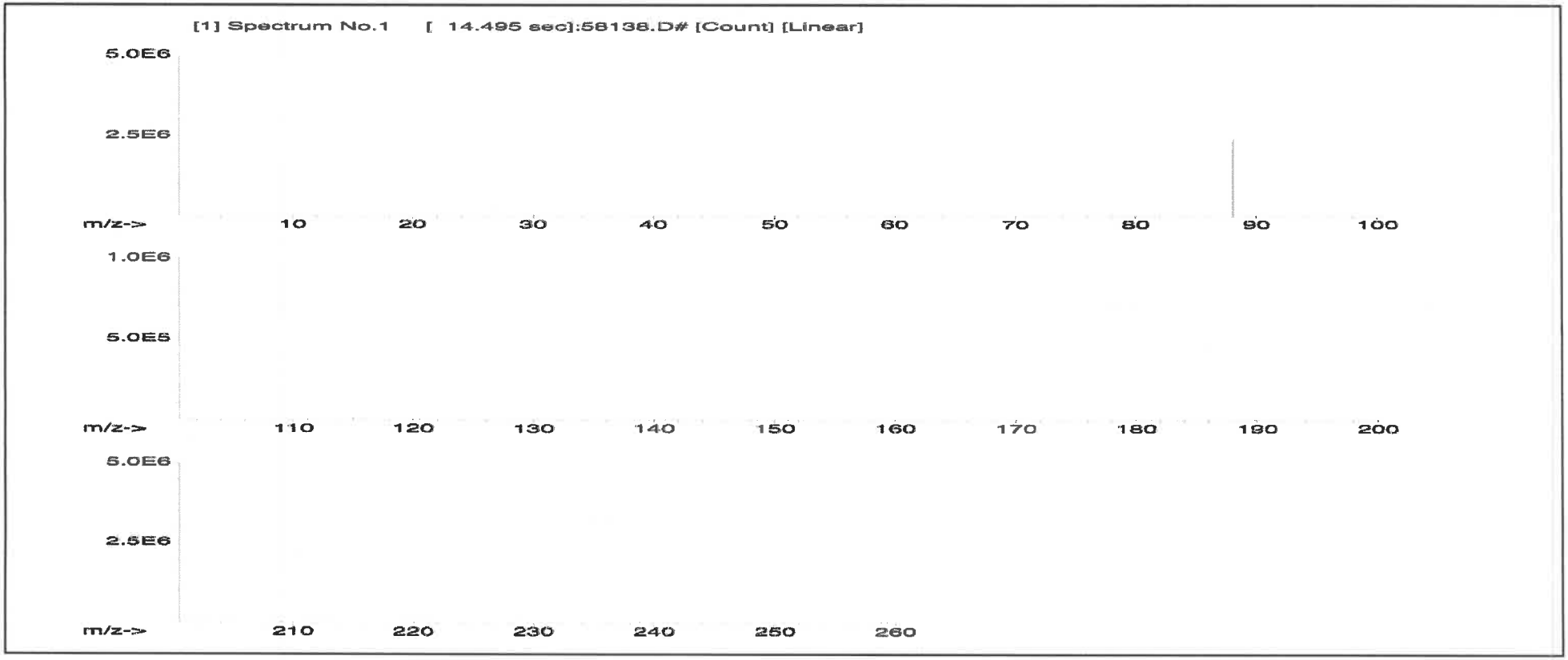
Part Number: 57038
Lot Number: 031524
Description: Strontium (Sr)

Expiration Date: 031527
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.07

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	40.0 (mL)	Nitric Acid	
5E-05	Balance Uncertainty		
0.100	Flask Uncertainty		

Formulated By:	Benson Chan	031524
Reviewed By:	Pedro L. Rentas	031524

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	4.85502	**1000.1**	**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).

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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:	Single Analyte Custom Grade Solution
Catalog Number:	CGIN10
Lot Number:	U2-IN729349
Matrix:	5% (v/v) HNO3
Value / Analyte(s):	10 000 µg/mL ea: Indium
Starting Material:	Indium Metal
Starting Material Lot#:	2511
Starting Material Purity:	99.9995%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10022 ± 30 µg/mL

Density: 1.044 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	**10021 ± 56 µg/mL** ICP Assay NIST SRM 3124a Lot Number: 110516
Assay Method #2	**10035 ± 25 µg/mL** EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	**10001 ± 33 µg/mL** Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$X_{CRM/RM} = \Sigma(w_i)(X_i)$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$w_i = (1/u_{char\ i})^2 / (\Sigma(1/(u_{char\ i})^2)$

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char} = [\Sigma((w_i)^2\ (u_{char\ i})^2)]^{½}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$X_{CRM/RM} = (X_a)\ (u_{char\ a})$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

CRM/RM Expanded Uncertainty (±) = $U_{CRM/RM} = k\ (u^2_{char\ a} + u^2_{bb} + u^2_{lts} + u^2_{ts})^{½}$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000760	M	Eu	<	0.000760	O	Na		0.012771	M	Se	<	0.023000	M	Zn	<	0.006100
M	Al		0.003385	O	Fe		0.004462	M	Nb	<	0.000760	O	Si		0.024619	M	Zr	<	0.000760
M	As	<	0.004600	M	Ga	<	0.000760	M	Nd	<	0.000760	M	Sm	<	0.000760				
M	Au	<	0.002300	M	Gd	<	0.000760	O	Ni	<	0.005100	M	Sn	<	0.000760				
O	B		0.003692	M	Ge	<	0.001600	M	Os	<	0.000760	O	Sr	<	0.000610				
M	Ba	<	0.001600	M	Hf	<	0.000760	n	P	<		M	Ta	<	0.000760				
O	Be	<	0.000130	M	Hg	<	0.003100	M	Pb		0.001400	M	Tb	<	0.000760				
M	Bi	<	0.000760	M	Ho	<	0.000760	M	Pd	<	0.001600	M	Te	<	0.000760				
O	Ca		0.004616	s	In	<		M	Pr	<	0.000760	M	Th	<	0.000760				
M	Cd	<	0.000760	M	Ir	<	0.000760	M	Pt	<	0.000760	O	Ti	<	0.001100				
M	Ce	<	0.000760	O	K		0.007078	M	Rb	<	0.000760	M	Tl	<	0.000760				
M	Co	<	0.000760	M	La	<	0.000760	M	Re	<	0.000760	M	Tm	<	0.000760				
O	Cr	<	0.001300	O	Li	<	0.000130	M	Rh	<	0.000760	M	U	<	0.000760				
M	Cs	<	0.000760	M	Lu	<	0.000760	M	Ru	<	0.000760	M	V	<	0.001600				
M	Cu	<	0.003800	O	Mg		0.000707	n	S	<		M	W	<	0.001600				
M	Dy	<	0.000760	O	Mn		0.000149	M	Sb	<	0.000760	M	Y	<	0.000760				
M	Er	<	0.000760	M	Mo	<	0.002300	M	Sc	<	0.000760	M	Yb	<	0.000760				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, https://www.inorganicventures.com/terms-and-conditions-sale. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit **www.inorganicventures.com/TCT**

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 114.82 +3 6 In(H2O)6+3

Chemical Compatibility -Soluble in HCl, HNO3, and H2SO4. Avoid neutral and basic media. Stable with most metals and inorganic anions. The oxalate, sulfide, carbonate, hydroxide and phosphate are insoluble in water.

Stability - 2-100 ppb levels stable for months in 1% HNO3 / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO3 / LDPE container.

In Containing Samples (Preparation and Solution) -Metal (Best dissolved in HCl / HNO3); Oxide (Soluble in mineral acids); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Sulfuric/peroxide digestion or dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	**Estimated D.L.**	**Order**	**Interferences** (underlined indicates severe)
ICP-MS 115 amu	1 ppt	n/a	115Sn, 99Ru16O
ICP-OES 158.583 nm	0.05 / 0.002 µg/mL	1	
ICP-OES 230.606 nm	0.1 / 0.03 µg/mL	1	Ni, Os
ICP-OES 325.609 nm	0.2 / 0.05 µg/mL	1	Mn, Mo, Th

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

February 21, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- February 21, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 01/03/24 M6033

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

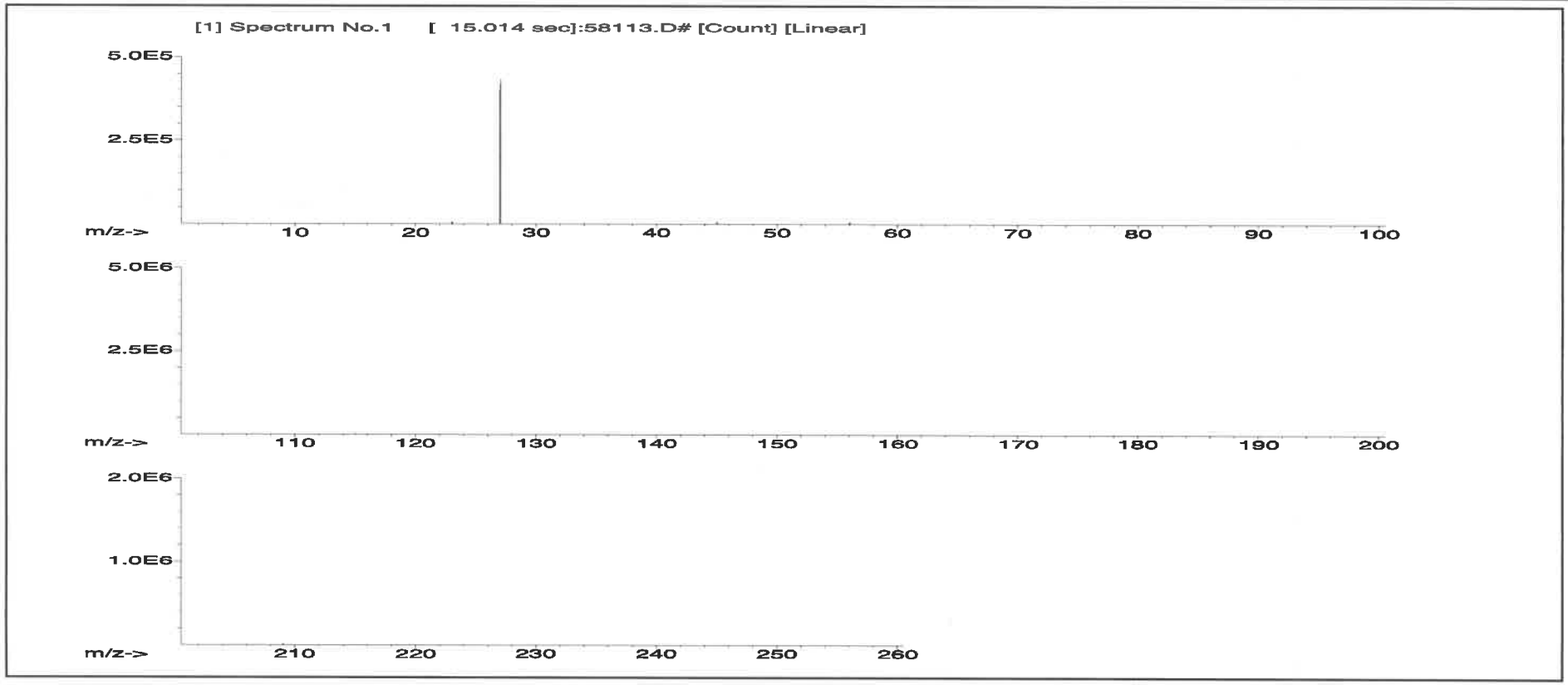
CERTIFIED WEIGHT REPORT:

Part Number:	**58113**		**Solvent:**	20510011	Nitric Acid
Lot Number:	**011623**				
Description:	**Aluminum (Al)**		2%	40.0 (mL)	Nitric Acid
Expiration Date:	011626				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**10000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.02	0.058	Flask Uncertainty		

Lot #

Giovanni Esposito		
Formulated By:	Giovanni Esposito	011623
Pedro Rentas		
Reviewed By:	Pedro L. Rentas	011623

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Aluminum nitrate nonahydrate (Al)	IN022	ALM112021A1	10000	99.999	0.10	7.30	273.9779	274.0078	**10001.1**	**20.0**	7784-27-2	2 mg/m3	orl-rat 3671 mg/kg	3101a



Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™ | J.T.Baker®

R → 10/13/24
Met dig

M 6121

Material No.: 9530-33
Batch No.: 0000275677
Manufactured Date: 2020/12/16
Retest Date: 2025/12/15
Revision No: 1

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
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.190
ACS – Bromide (Br)	<= 0.005 %	< 0.005
ACS – Extractable Organic Substances	<= 5 ppm	1
ACS – Free Chlorine (as Cl_2)	<= 0.5 ppm	< 0.5
Phosphate (PO_4)	<= 0.05 ppm	< 0.03
Sulfate (SO_4)	<= 0.5 ppm	< 0.3
Sulfite (SO_3)	<= 0.8 ppm	0.3
Ammonium (NH_4)	<= 3 ppm	< 1
Trace Impurities – Arsenic (As)	<= 0.010 ppm	< 0.003
Trace Impurities – Aluminum (Al)	<= 10.0 ppb	< 0.2
Arsenic and Antimony (as As)	<= 5 ppb	< 3
Trace Impurities – Barium (Ba)	<= 1.0 ppb	< 0.2
Trace Impurities – Beryllium (Be)	<= 1.0 ppb	< 0.2
Trace Impurities – Bismuth (Bi)	<= 10.0 ppb	< 1.0
Trace Impurities – Boron (B)	<= 20.0 ppb	< 5.0
Trace Impurities – Cadmium (Cd)	<= 1.0 ppb	< 0.3
Trace Impurities – Calcium (Ca)	<= 50.0 ppb	29.7
Trace Impurities – Chromium (Cr)	<= 1.0 ppb	< 0.4
Trace Impurities – Cobalt (Co)	<= 1.0 ppb	< 0.3
Trace Impurities – Copper (Cu)	<= 1.0 ppb	< 0.1
Trace Impurities – Gallium (Ga)	<= 1.0 ppb	< 0.2

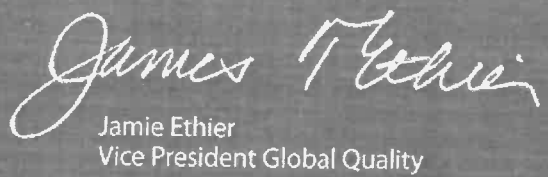
For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

Material No.: 9530-33
Batch No.: 0000275677

Test	Specification	Result
Trace Impurities - Germanium (Ge)	<= 3.0 ppb	< 2.0
Trace Impurities - Gold (Au)	<= 4.0 ppb	< 0.2
Heavy Metals (as Pb)	<= 100 ppb	< 50
Trace Impurities - Iron (Fe)	<= 15.0 ppb	<1
Trace Impurities - Lead (Pb)	<= 1.0 ppb	< 0.5
Trace Impurities - Lithium (Li)	<= 1.0 ppb	0.2
Trace Impurities - Magnesium (Mg)	<= 10.0 ppb	0.4
Trace Impurities - Manganese (Mn)	<= 1.0 ppb	< 0.4
Trace Impurities - Mercury (Hg)	<= 0.5 ppb	0.1
Trace Impurities - Molybdenum (Mo)	<= 10.0 ppb	< 5.0
Trace Impurities - Nickel (Ni)	<= 4.0 ppb	< 0.3
Trace Impurities - Niobium (Nb)	<= 1.0 ppb	< 0.2
Trace Impurities - Potassium (K)	<= 9.0 ppb	< 2.0
Trace Impurities - Selenium (Se), For Information Only	ppb	1.0
Trace Impurities - Silicon (Si)	<= 100.0 ppb	< 10.0
Trace Impurities - Silver (Ag)	<= 1.0 ppb	< 0.3
Trace Impurities - Sodium (Na)	<= 100.0 ppb	< 5.0
Trace Impurities - Strontium (Sr)	<= 1.0 ppb	< 0.2
Trace Impurities - Tantalum (Ta)	<= 1.0 ppb	< 0.9
Trace Impurities - Thallium (Tl)	<= 5.0 ppb	< 2.0
Trace Impurities - Tin (Sn)	<= 5.0 ppb	< 0.8
Trace Impurities - Titanium (Ti)	<= 1.0 ppb	0.2
Trace Impurities - Vanadium (V)	<= 1.0 ppb	< 0.2
Trace Impurities - Zinc (Zn)	<= 5.0 ppb	0.3
Trace Impurities - Zirconium (Zr)	<= 1.0 ppb	< 0.1

For Laboratory, Research or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications

Country of Origin: US
Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Ethier
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700
Avantor Performance Materials, LLC
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

M6125 Receive -> 11/22/24

CORCO CHEMICAL CORPORATION

Manufacturers of ACS Reagents and Semiconductor Grade Chemicals

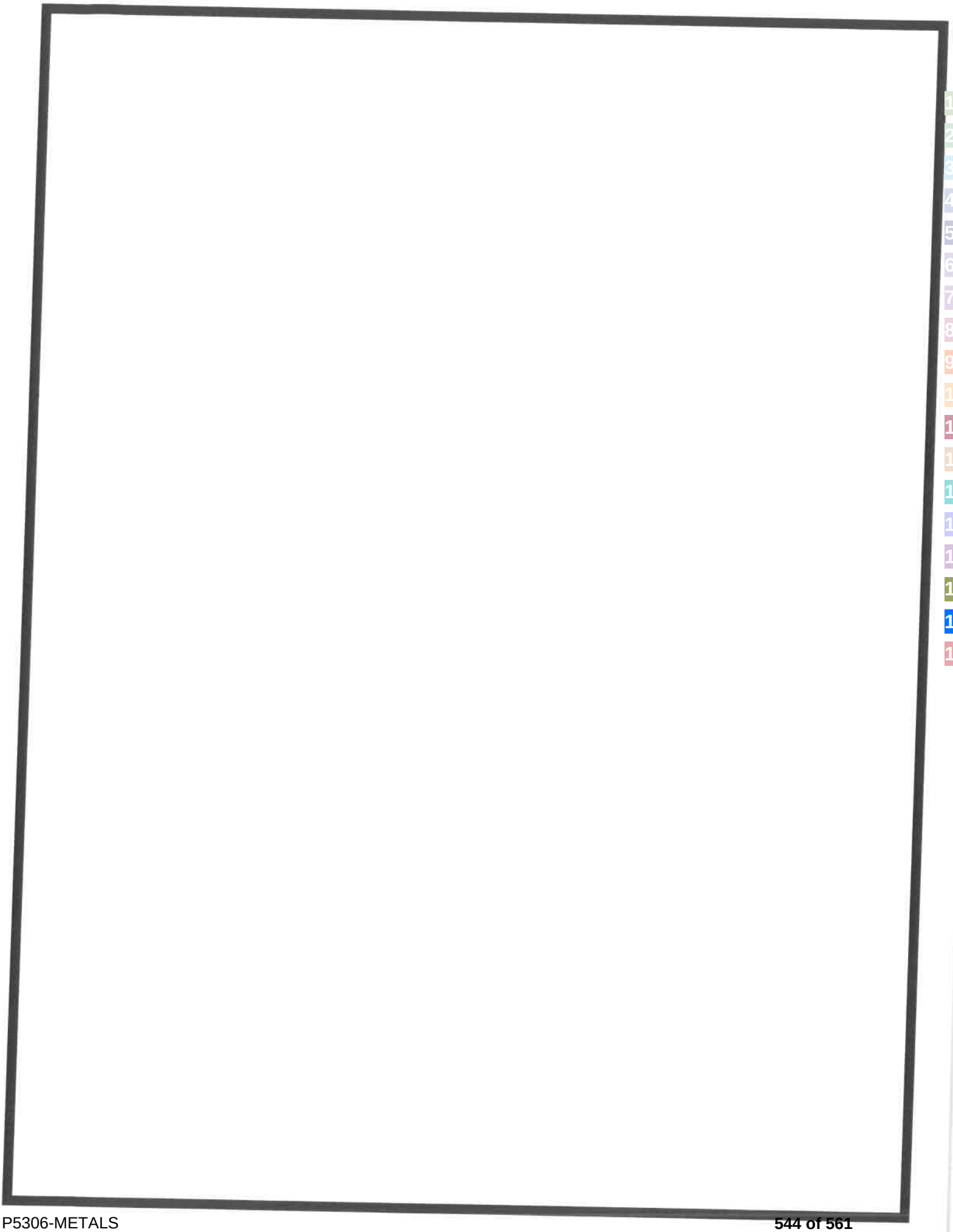
Office and Plant
299 Cedar Lane
Fairless Hills, PA 19030

Phone: 215-295-5006
Fax: 215-295-0781

Hydrogen Peroxide 30%, ACS

Reagent Grade

SPECIFICATION	MAXIMUM LIMITS
Appearance	Colorless and free from suspended matter or sediment
Assay	29-32%
Color (APHA)	10
Residue after Evaporation	0.002%
Titratable Acid	0.0006 meq/g
Chloride (Cl)	3 ppm
Nitrate (NO_3)	2 ppm
Phosphate	2 ppm
Sulfate (SO_4)	5 ppm
Ammonium (NH_4)	5 ppm
Heavy Metals (as Pb)	1 ppm
Iron (Fe)	0.5 ppm



Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

R -> 11/12/24

M6126

Material No.: 9606-03
Batch No.: 24D1062002
Manufactured Date: 2024-03-26
Retest Date: 2029-03-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO_3)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO_4)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO_4)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	2.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	100 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™ | J.T.Baker®

Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result

For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC

Jamie Croak
Director Quality Operations, Bioscience Production

Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com

Certified Reference Material CRM

R: 01/03/24 M5806, M5807

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AR-1539 Certificate Number
https://Absolutestandards.com

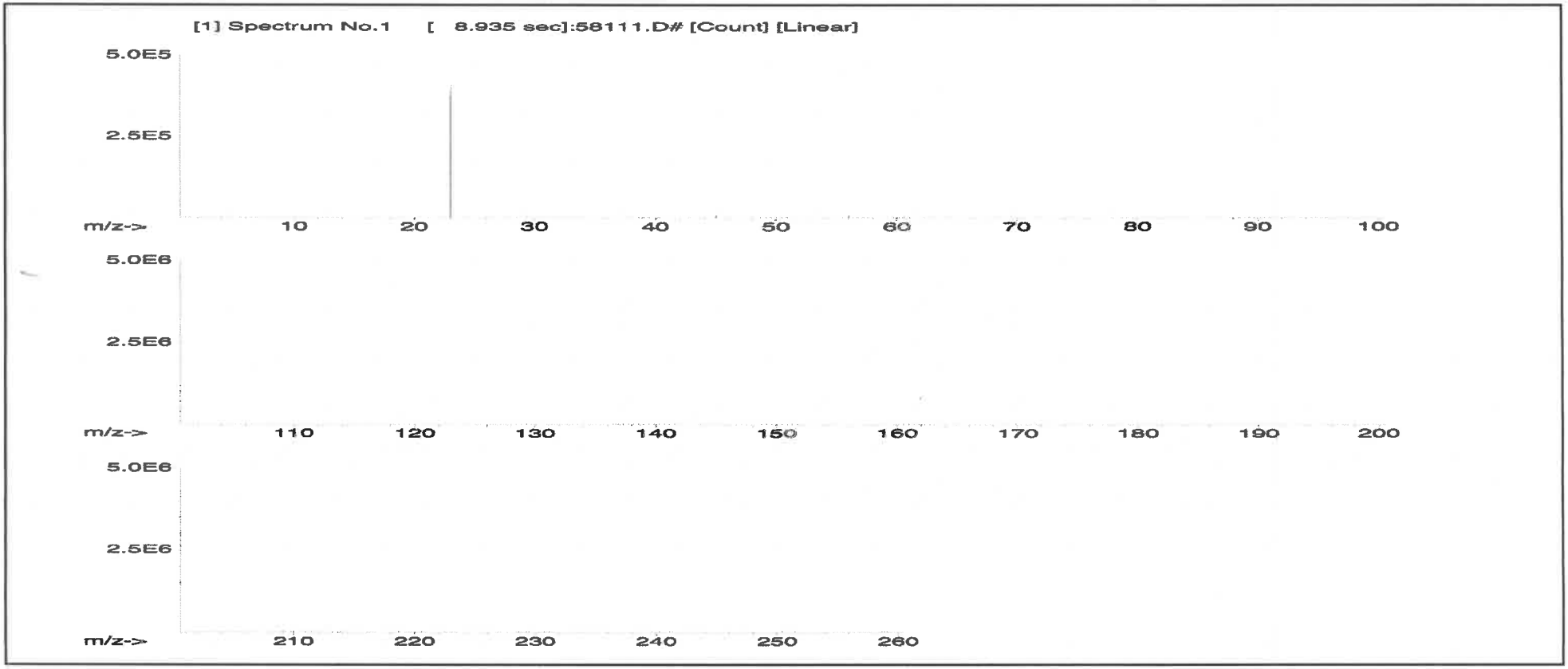
CERTIFIED WEIGHT REPORT:

Part Number:	**58111**		**Lot #**		
Lot Number:	**122223**	**Solvent:**	24002546	Nitric Acid	
Description:	**Sodium (Na)**	2%	60.0 (mL)	Nitric Acid	
Expiration Date:	122226				
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):	3000.4	0.06	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	122223
Reviewed By:	Pedro L. Rentas	122223

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Sodium nitrate (Na)	IN036	NAV012015I1	10000	99.999	0.10	26.9	111.5406	111.5479	**10000.7**	**20.0**	7631-99-4	5 mg/m3	orl-rat 3430 mg/kg	3152a



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Certified Reference Material CRM

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AR-1539 Certificate Number
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	T	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

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: 01/03/24 M5802, M5803

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AR-1539 Certificate Number
https://Absolutestandards.com

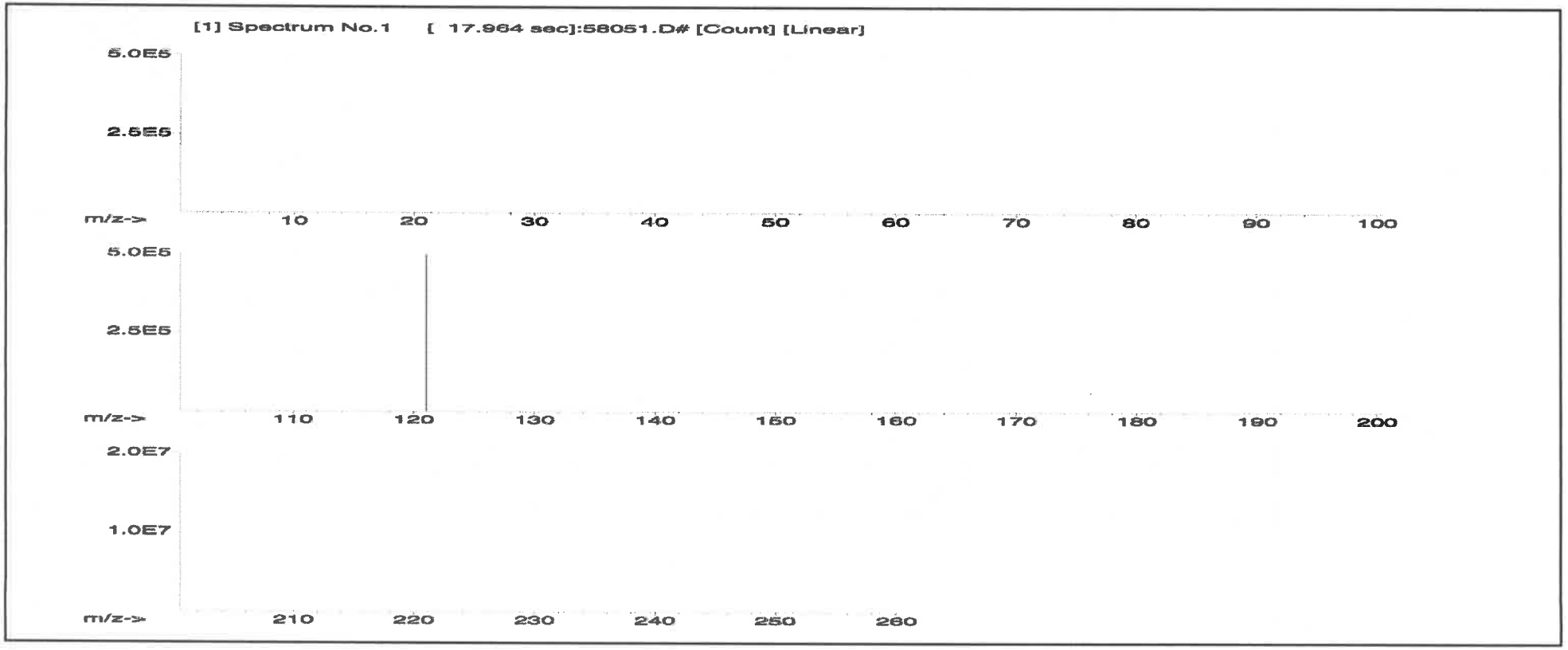
CERTIFIED WEIGHT REPORT:

Part Number:	57051
Lot Number:	120523
Description:	Antimony (Sb)
Expiration Date:	120526
Recommended Storage:	Ambient (20 °C)
Nominal Concentration (µg/mL):	1000
NIST Test Number:	6UTB
Volume shown below was diluted to (mL):	3000.41

Lot #	Solvent:		
24002546	Nitric Acid		
2.0%	60.0 (mL)	Nitric Acid	
5E-05	Balance Uncertainty		
0.058	Flask Uncertainty		

Formulated By:	Lawrence Barry	120523
Reviewed By:	Pedro L. Rentas	120523

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	100923	0.1000	300.0	0.084	1000	10001.4	**1000.0**	2.1	7440-36-0	0.5 mg/m3	orl-rat 7000 mg/kg	3102a



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Certified Reference Material CRM

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

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.
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Certified Reference Material CRM

M6030

R: 8/5/24

ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57047
Lot Number: 122823
Description: Silver (Ag)

Expiration Date: 122826
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

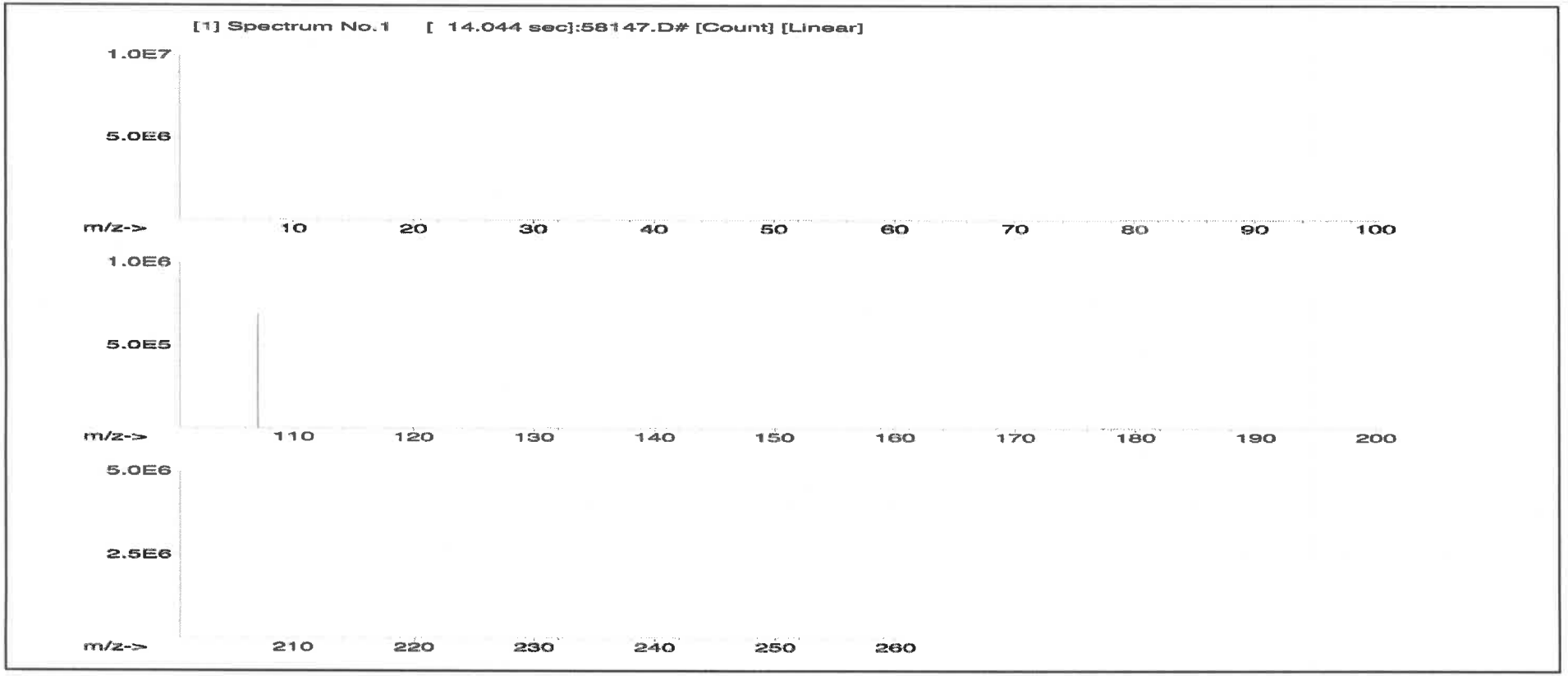
Weight shown below was diluted to (mL): 4000.30 0.058 Flask Uncertainty

	Lot #		
Solvent:	24002546	Nitric Acid	
2%	80.0 (mL)	Nitric Acid	

5E-05 Balance 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



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https://Absolutestandards.com

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:

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 Reference Material CRM

M6023

R ! 8/5/24

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https://Absolutestandards.com

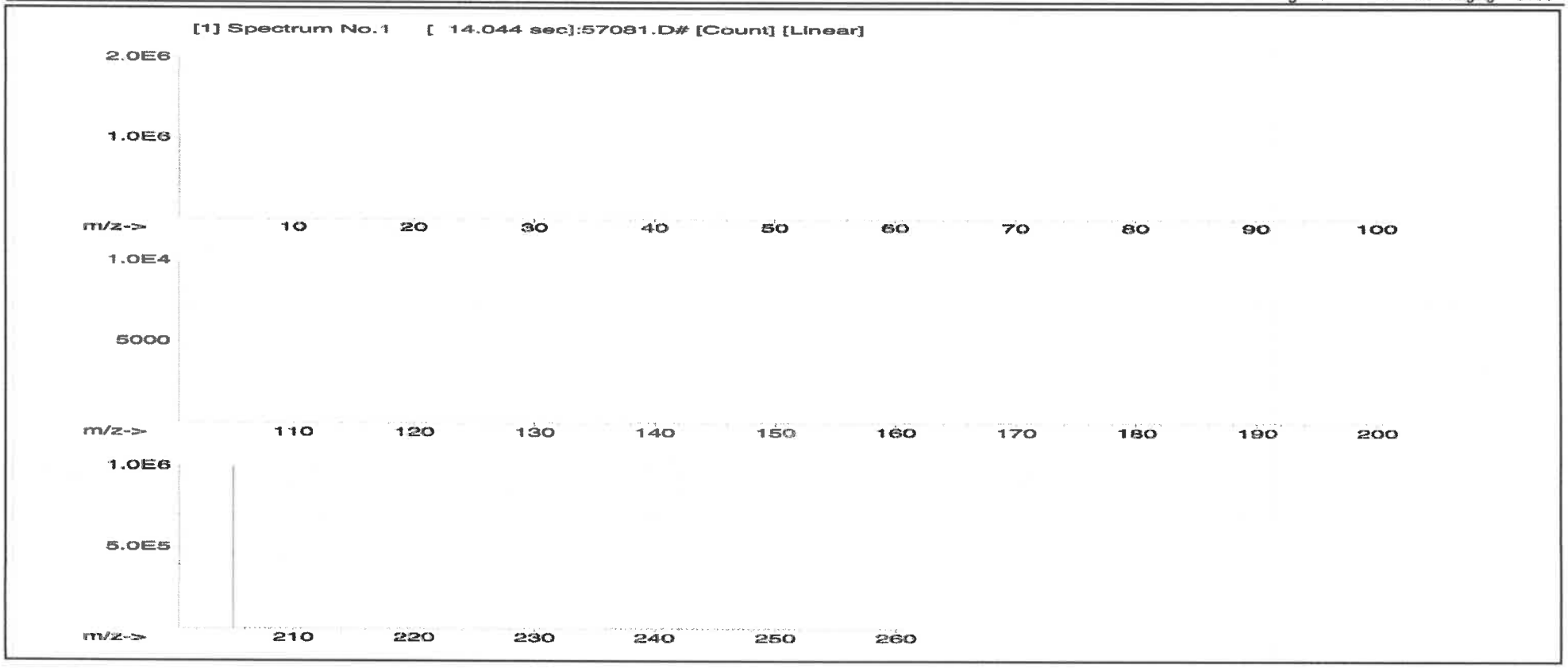
CERTIFIED WEIGHT REPORT:

Part Number:	**57081**		**Lot #**		
Lot Number:	**062724**	**Solvent:**	24002546	Nitric Acid	
Description:	**Thallium (Tl)**				
		2%	40.0 (mL)	Nitric Acid	
Expiration Date:	062727				
Recommended Storage:	Ambient (20 °C)				
Nominal Concentration (µg/mL):	**1000**				
NIST Test Number:	6UTB	5E-05	Balance Uncertainty		
Weight shown below was diluted to (mL):	2000.1	0.10	Flask Uncertainty		

Aleah O'Brady

Formulated By:	Aleah O'Brady	062724
Reviewed By:	Pedro L. Rentas	062724

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.) CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Thallium nitrate (Tl)	IN037	BCCF4399	1000	99.999	0.10	77.0	2.5975	2.5977	**1000.1**	**2.0**	10102-45-1	0.1 mg/m3	orl-mus 15mg/kg	3158



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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:



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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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M6021

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AR-1539 Certificate Number
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Bc. 8/5/24

CERTIFIED WEIGHT REPORT:

		Lot #	Solvent:	
Part Number:	**57023**	24002546	Nitric Acid	
Lot Number:	**062424**			
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	

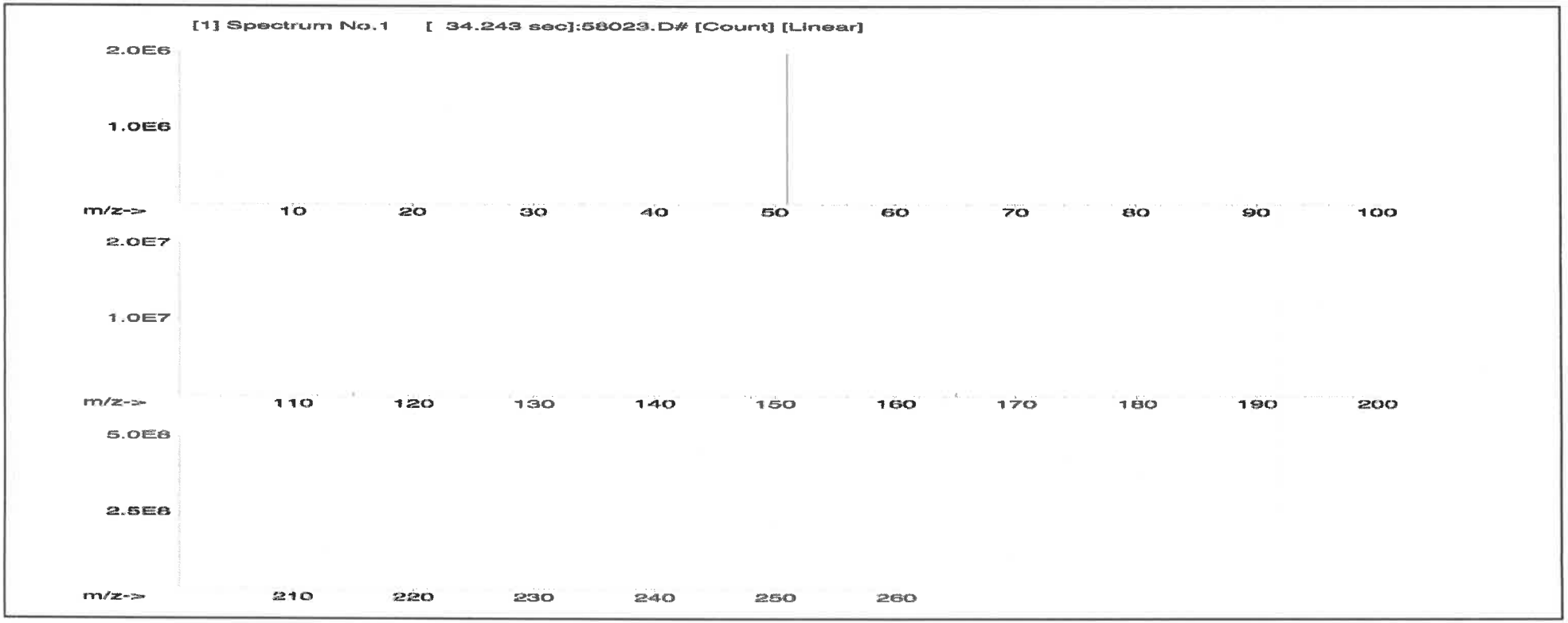
Aleah O'Brady

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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ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://Absolutestandards.com

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	T
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

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SHIPPING DOCUMENTS

P5306

Chemtech

Phone: (908) 789-8900
Fax: (908) 789-8922
284 Sheffield Street, Mountainside, NJ 07092

http://www.contestlabs.com

CHAIN OF CUSTODY RECORD

Doc # 381 Rev 4_01/08/2020

39 Spruce Street
East Longmeadow, MA 01028

Page __1__ of __1__

Company Name:	Nobis Group
Address:	55 Technology Drive Suite 101, Lowell, MA 01851
Phone:	978-703-6014
Project Name:	Raymark
Project Location:	Stratford, CT
Project Number:	95700
Project Manager:	Adam Roy
Con-Test Quote Name/Number:	
Invoice Recipient:	
Sampled By:	P. Moran

Requested Turnaround Time
5-Day ☐ 10-Day ☒
PFAS 10-Day (std) ☐ Due Date:

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☒ EXCEL ☒
Other: Equis EDD
CLP Like Data Pkg Required: ☐ No
Email To: aroy@nobis-group.com
Fax To #:

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

PCB ONLY
SOXHLET ☒
NON SOXHLET ☐

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	COMP/GRAB	[1]Matrix Code	Conc Code	VIALS	GLASS	PLASTIC	BACTERIA	ENCORE	M/O	RCP VOCs	% Solids	PAHs	Herbicides	Pesticides	PCBs	Metals ICP + Hg - 6010	Cyanide	SPLP RCP Metals - 6020	Total and SPLP Vanadium
	004-VSL-07-121224	12/12/24	1000	Grab	S	U	3	2	1				X	X	X	X	X	X	X	X	X	
	004-VSL-08-121224		1010				3	2	1				X	X	X	X	X	X	X	X	X	
	004-VSL-09-121224		1020				3	2	1				X	X	X	X	X	X	X	X	X	
	004-VSL-10-121224		1030				3	2	1				X	X	X	X	X	X	X	X	X	
	004-VSL-11-121224		1040				3	2	1				X	X	X	X	X	X	X	X	X	
	004-VSL-12-121224		1050				3	2	1				X	X	X	X	X	X	X	X	X	
	004-VSL-13-121224		1100				3	2	1				X	X	X	X	X	X	X	X	X	
	004-VSL-14-121224		1110				3	2	1				X	X	X	X	X	X	X	X	X	
	004-VSL-06R-121224	↓	1115	↓	↓	↓	0	2	0													X

[2] Preservation Code

Lab Use Only
Total Number Of:
VIALS_____
GLASS_____
PLASTIC_____
BACTERIA_____
ENCORE_____

Glassware in the fridge? Y / N

Glassware in freezer? Y / N

Prepackaged Cooler? Y / N

*Contest is not responsible for missing samples from prepacked coolers

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define) DI Water

Relinquished by: (signature)	Date/Time: 12/13/24 1130	Client Comments: DI water preserved samples frozen on 12/11/24
Received by: (signature)	Date/Time: 12-17-24 9:50	
Relinquished by: (signature)	Date/Time:	
Received by: (signature)	Date/Time:	
Relinquished by: (signature)	Date/Time:	
Received by: (signature)	Date/Time:	
Relinquished by: (signature)	Date/Time:	
Received by: (signature)	Date/Time:	

Detection Limit Requirements
MA
CT
Other:

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☒ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

NELAC and AIHA-LAP,LLC Accredited

Project Entity
Government ☐ Municipality ☐ MWRA ☐ WRTA ☐
Federal ☐ 21 J ☐ School ☐
City ☐ Brownfield ☐ MBTA ☐

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

Lab Comments:

Disclaimer: Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con-Test values your partnership on each project and will try to assist with missing information, but will not be held accountable.

IR Gun #1 2.4°

558 of 561

P5306-METALS

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID : P5306 NOBI03
Client Name : Nobis Group
Client Contact : Adam Roy
Invoice Name : Nobis Group
Invoice Contact : Adam Roy

Order Date : 12/17/2024 10:24:00 AM
Project Name : Raymark Superfund Site
Receive DateTime : 12/17/2024 9:50:00 AM
Purchase Order :

Project Mgr :
Report Type : Level 4
EDD Type : EQUIS
Hard Copy Date :
Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
P5306-01	OU4-VSL-07-121224	Solid	12/12/2024	10:00					
					VOCMS Group3		8260D		10 Bus. Days
P5306-03	OU4-VSL-08-121224	Solid	12/12/2024	10:10					
					VOCMS Group3		8260D		10 Bus. Days
P5306-05	OU4-VSL-09-121224	Solid	12/12/2024	10:20					
					VOCMS Group3		8260D		10 Bus. Days
P5306-07	OU4-VSL-10-121224	Solid	12/12/2024	10:30					
					VOCMS Group3		8260D		10 Bus. Days
P5306-09	OU4-VSL-11-121224	Solid	12/12/2024	10:40					
					VOCMS Group3		8260D		10 Bus. Days
P5306-11	OU4-VSL-12-121224	Solid	12/12/2024	10:50					
					VOCMS Group3		8260D		10 Bus. Days
P5306-13	OU4-VSL-13-121224	Solid	12/12/2024	11:00					
					VOCMS Group3		8260D		10 Bus. Days
P5306-15	OU4-VSL-14-121224	Solid	12/12/2024	~~11:15~~ 11:10					

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

LOGIN REPORT/SAMPLE TRANSFER

Order ID :	P5306 NOBI03	**Order Date :**	12/17/2024 10:24:00 AM	**Project Mgr :**	
Client Name :	Nobis Group	**Project Name :**	Raymark Superfund Site	**Report Type :**	Level 4
Client Contact :	Adam Roy	**Receive DateTime :**	12/17/2024 9:50:00 AM	**EDD Type :**	EQUIS
Invoice Name :	Nobis Group	**Purchase Order :**		**Hard Copy Date :**	
Invoice Contact :	Adam Roy			**Date Signoff :**	

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD		FAX DATE	DUE DATES
					VOCMS Group3		8260D	10 Bus. Days		

Relinguished By : _____
Date / Time : 12-17-24 1230

Received By : _____
Date / Time : 12.17.24 12:30

Storage Area : **VOA Refridgerator Room**