

DATA PACKAGE

METALS

PROJECT NAME : FORMER SCHLUMBERGER STC PTC SITE D3868221

JACOBS ENGINEERING GROUP, INC.

412 Mt. Kemble Ave

Downtown Building

Morristown, NJ - 07960

Phone No: 9732670555

ORDER ID : Q1731

ATTENTION : John Ynfante



Laboratory Certification ID # 20012



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Cover Page

Order ID : Q1731

Project ID : Former Schlumberger STC PTC Site D3868221

Client : JACOBS Engineering Group, Inc.

Lab Sample Number

Q1731-01
Q1731-02
Q1731-03
Q1731-04
Q1731-05
Q1731-06
Q1731-07

Client Sample Number

RMW-01B-82-040325
RMW-04B-91-040325
RMW-01B-82-040325-FD
RMW-03B-90-040325
EB01-040325
EB01-040325
TB01-040325

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 :

APPROVED

By Nimisha Pandya, QA/QC Supervisor at 9:16 am, Apr 15, 2025

Date: 4/11/2025

NYDOH CERTIFICATION NO - 11376

NJDEP CERTIFICATION NO - 20012



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

CASE NARRATIVE

JACOBS Engineering Group, Inc.

Project Name: Former Schlumberger STC PTC Site D3868221

Project # N/A

Chemtech Project # Q1731

Test Name: Metals Group4,Dissolved ICP-Group2

A. Number of Samples and Date of Receipt:

7 Water samples were received on 04/03/2025.

B. Parameters:

According to the Chain of Custody document, the following analyses were requested: Alkalinity, Anions Group1, Dissolved ICP-Group2, Dissolved Metals Group3, Metals Group4, SVOC-SIMGroup1, TDS and VOCMS Group3. This data package contains results for Metals Group4,Dissolved ICP-Group2.

C. Analytical Techniques:

The analysis of Dissolved ICP-Group2,Metals Group4 was based on method 6020B and digestion based on method 3010 (waters).

D. QA/ QC Samples:

The Holding Times were met for all analysis.

The Blank Spike met requirements for all samples.

The Duplicate (MW-18B-56-040225DUP) analysis met criteria for all samples except for Manganese due to sample matrix interference.

The Matrix Spike (MW-18B-56-040225MS) analysis met criteria for all samples except for Arsenic and Potassium due to Chemical Interference during Digestion Process.

The Matrix Spike Duplicate (MW-18B-56-040225MSD) analysis met criteria for all samples except for Arsenic 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: Sample Q1731-05 analyse as Total Metal and Q1731-06 analyse as Dissolve Metal.

Collision cell is being used to remove potential interferences. The analytes Na, Mg, Al, K, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As are being analyzed with collision cell and analytes Be, B, Ca, Ti, Se, Sr, Zr, Mo, Ag, Cd, Sn, Sb, Ba, Tl, Pb, U are being analyzed with Non-Collision Cell. Helium gas is used for the Collision Cell analysis.



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_____

APPROVED

By Nimisha Pandya, QA/QC Supervisor at 9:17 am, Apr 15, 2025

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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

METALS CONFORMANCE/NON-CONFORMANCE SUMMARY

CHEMTECH PROJECT NUMBER: Q1731

MATRIX: Water

METHOD: 6020B

	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 (MW-18B-56-040225MS) analysis met criteria for all samples except for Arsenic and Potassium due to Chemical Interference during Digestion Process. The Matrix Spike Duplicate (MW-18B-56-040225MSD) analysis met criteria for all samples except for Arsenic 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. The Duplicate (MW-18B-56-040225DUP) analysis met criteria for all samples except for Manganese due to sample matrix interference.			
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: Sample Q1731-05 analyse as Total Metal and Q1731-06 analyse as Dissolve Metal.
Collision cell is being used to remove potential interferences. The analytes Na, Mg, Al, K, V, Cr, Mn, Fe, Co, Ni, Cu, Zn, As are being analyzed with collision cell and analytes Be, B, Ca, Ti, Se, Sr, Zr, Mo, Ag, Cd, Sn, Sb, Ba, Tl, Pb, U are being analyzed with Non-Collision Cell. Helium gas is used for the Collision Cell analysis.

REVIEWED

QA REVIEW

By Sohil Jodhani, QA/QC Director at 9:06 am, Apr 15, 2025

APPENDIX A

QA REVIEW GENERAL DOCUMENTATION

Project #: Q1731

Completed

For thorough review, the report must have the following:

GENERAL:

Are all original paperwork present (chain of custody, record of communication,airbill, sample management lab chronicle, login page)

✓

Check chain-of-custody for proper relinquish/return of samples

✓

Is the chain of custody signed and complete

✓

Check internal chain-of-custody for proper relinquish/return of samples /sample extracts

✓

Collect information for each project id from server. Were all requirements followed

✓

COVER PAGE:

Do numbers of samples correspond to the number of samples in the Chain of Custody on login page

✓

Do lab numbers and client Ids on cover page agree with the Chain of Custody

✓

CHAIN OF CUSTODY:

Do requested analyses on Chain of Custody agree with form I results

✓

Do requested analyses on Chain of Custody agree with the log-in page

✓

Were the correct method log-in for analysis according to the Analytical Request and Chain of Custody

✓

Were the samples received within hold time

✓

Were any problems found with the samples at arrival recorded in the Sample Management Laboratory Chronicle

✓

ANALYTICAL:

Was method requirement followed?

✓

Was client requirement followed?

✓

Does the case narrative summarize all QC failure?

✓

All runlogs and manual integration are reviewed for requirements

✓

All manual calculations and /or hand notations verified

✓

QA Review Signature: SOHIL JODHANI

Date: 04/11/2025

LAB CHRONICLE

OrderID:	Q1731	OrderDate:	4/4/2025 10:52:00 AM
Client:	JACOBS Engineering Group, Inc.	Project:	Former Schlumberger STC PTC Site D3868221
Contact:	John Ynfante	Location:	L31,VOA Ref. #3 Water

LabID	ClientID	Matrix	Test	Method	Sample Date	Prep Date	Anal Date	Received
Q1731-05	EB01-040325	Water	Metals Group4	6020B	04/03/25	04/04/25	04/07/25	04/03/25
Q1731-06	EB01-040325	Water	Dissolved ICP-Group2	6020B	04/03/25	04/04/25	04/07/25	04/03/25

Hit Summary Sheet
SW-846

SDG No.:	Q1731	Order ID:	Q1731
Client:	JACOBS Engineering Group, Inc.	Project ID:	Former Schlumberger STC PTC Site D386

Sample ID	Client ID	Matrix	Parameter	Concentration	C	MDL	RDL	Units
Client ID : EB01-040325								
Q1731-05	EB01-040325	Water	Aluminum	2.86	J	1.94	20.0	ug/L
Q1731-05	EB01-040325	Water	Lead	0.23	J	0.21	1.00	ug/L
Q1731-05	EB01-040325	Water	Manganese	0.66	J	0.43	1.00	ug/L
Q1731-05	EB01-040325	Water	Potassium	38.0	J	36.4	500	ug/L



SAMPLE DATA

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Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	04/03/25
Project:	Former Schlumberger STC PTC Site D3868221	Date Received:	04/03/25
Client Sample ID:	EB01-040325	SDG No.:	Q1731
Lab Sample ID:	Q1731-05	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7429-90-5	Aluminum	2.86	J	1	1.94	20.0	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7440-36-0	Antimony	0.11	U	1	0.11	2.00	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7440-38-2	Arsenic	0.089	UN	1	0.089	1.00	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7440-39-3	Barium	0.21	U	1	0.21	10.0	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7440-41-7	Beryllium	0.32	U	1	0.32	1.00	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7440-43-9	Cadmium	0.34	U	1	0.34	1.00	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7440-47-3	Chromium	0.21	U	1	0.21	2.00	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7440-50-8	Copper	0.30	U	1	0.30	2.00	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7439-89-6	Iron	7.81	U	1	7.81	50.0	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7439-92-1	Lead	0.23	J	1	0.21	1.00	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7439-95-4	Magnesium	19.5	U	1	19.5	500	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7439-96-5	Manganese	0.66	J*	1	0.43	1.00	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7440-09-7	Potassium	38.0	JN	1	36.4	500	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7782-49-2	Selenium	2.90	U	1	2.90	5.00	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A
7440-23-5	Sodium	128	U	1	128	500	ug/L	04/04/25 12:05	04/07/25 14:11	SW6020	3010A

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

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

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

Report of Analysis

Client:	JACOBS Engineering Group, Inc.	Date Collected:	04/03/25
Project:	Former Schlumberger STC PTC Site D3868221	Date Received:	04/03/25
Client Sample ID:	EB01-040325	SDG No.:	Q1731
Lab Sample ID:	Q1731-06	Matrix:	Water
Level (low/med):	low	% Solid:	0

Cas	Parameter	Conc.	Qua.	DF	MDL	LOQ / CRQL	Units	Prep Date	Date Ana.	Ana Met.	Prep Met.
7439-89-6	Iron	7.81	U	1	7.81	50.0	ug/L	04/04/25 12:05	04/07/25 14:14	SW6020	3010A

Color Before:	Colorless	Clarity Before:	Clear	Texture:
Color After:	Colorless	Clarity After:	Clear	Artifacts:
Comments:	Dissolved Metals Group3			

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: JACOBS Engineering Group, Inc. SDG No.: Q1731
 Contract: JACO05 Lab Code: CHEM Case No.: Q1731 SAS No.: Q1731
 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
ICV01	Aluminum	477	500	95	90 - 110	P	04/04/2025	14:58	LB135315
	Antimony	206	200	103	90 - 110	P	04/04/2025	14:58	LB135315
	Arsenic	207	200	103	90 - 110	P	04/04/2025	14:58	LB135315
	Barium	103	100	103	90 - 110	P	04/04/2025	14:58	LB135315
	Beryllium	104	100	104	90 - 110	P	04/04/2025	14:58	LB135315
	Cadmium	107	100	107	90 - 110	P	04/04/2025	14:58	LB135315
	Chromium	102	100	102	90 - 110	P	04/04/2025	14:58	LB135315
	Copper	93.7	100	94	90 - 110	P	04/04/2025	14:58	LB135315
	Iron	2110	2000	106	90 - 110	P	04/04/2025	14:58	LB135315
	Lead	189	200	95	90 - 110	P	04/04/2025	14:58	LB135315
	Magnesium	1110	1200	93	90 - 110	P	04/04/2025	14:58	LB135315
	Manganese	90.8	100	91	90 - 110	P	04/04/2025	14:58	LB135315
	Potassium	2020	2000	101	90 - 110	P	04/04/2025	14:58	LB135315
	Selenium	216	200	108	90 - 110	P	04/04/2025	14:58	LB135315
	Sodium	1950	2000	98	90 - 110	P	04/04/2025	14:58	LB135315

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. SDG No.: Q1731
Contract: JACO05 Lab Code: CHEM Case No.: Q1731 SAS No.: Q1731
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
LLICV	Aluminum	20.5	20.0	102	80 - 120	P	04/04/2025	15:17	LB135315
	Antimony	2.10	2.0	105	80 - 120	P	04/04/2025	15:17	LB135315
	Arsenic	1.13	1.0	113	80 - 120	P	04/04/2025	15:17	LB135315
	Barium	9.98	10.0	100	80 - 120	P	04/04/2025	15:17	LB135315
	Beryllium	1.18	1.0	118	80 - 120	P	04/04/2025	15:17	LB135315
	Cadmium	0.99	1.0	99	80 - 120	P	04/04/2025	15:17	LB135315
	Chromium	2.13	2.0	106	80 - 120	P	04/04/2025	15:17	LB135315
	Copper	1.93	2.0	96	80 - 120	P	04/04/2025	15:17	LB135315
	Iron	58.6	50.0	117	80 - 120	P	04/04/2025	15:17	LB135315
	Lead	0.98	1.0	98	80 - 120	P	04/04/2025	15:17	LB135315
	Magnesium	512	500	102	80 - 120	P	04/04/2025	15:17	LB135315
	Manganese	0.99	1.0	99	80 - 120	P	04/04/2025	15:17	LB135315
	Potassium	519	500	104	80 - 120	P	04/04/2025	15:17	LB135315
	Selenium	5.36	5.0	107	80 - 120	P	04/04/2025	15:17	LB135315
	Sodium	516	500	103	80 - 120	P	04/04/2025	15:17	LB135315

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. SDG No.: Q1731
Contract: JACO05 Lab Code: CHEM Case No.: Q1731 SAS No.: Q1731
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
CCV01	Aluminum	49300	50000	99	90 - 110	P	04/04/2025	15:30	LB135315
	Antimony	483	500	97	90 - 110	P	04/04/2025	15:30	LB135315
	Arsenic	497	500	100	90 - 110	P	04/04/2025	15:30	LB135315
	Barium	2490	2500	100	90 - 110	P	04/04/2025	15:30	LB135315
	Beryllium	510	500	102	90 - 110	P	04/04/2025	15:30	LB135315
	Cadmium	467	500	93	90 - 110	P	04/04/2025	15:30	LB135315
	Chromium	498	500	100	90 - 110	P	04/04/2025	15:30	LB135315
	Copper	4790	5000	96	90 - 110	P	04/04/2025	15:30	LB135315
	Iron	125000	125000	100	90 - 110	P	04/04/2025	15:30	LB135315
	Lead	2520	2500	101	90 - 110	P	04/04/2025	15:30	LB135315
	Magnesium	242000	250000	97	90 - 110	P	04/04/2025	15:30	LB135315
	Manganese	4860	5000	97	90 - 110	P	04/04/2025	15:30	LB135315
	Potassium	124000	125000	99	90 - 110	P	04/04/2025	15:30	LB135315
	Selenium	475	500	95	90 - 110	P	04/04/2025	15:30	LB135315
	Sodium	246000	250000	98	90 - 110	P	04/04/2025	15:30	LB135315
CCV02	Aluminum	49300	50000	99	90 - 110	P	04/04/2025	16:10	LB135315
	Antimony	497	500	99	90 - 110	P	04/04/2025	16:10	LB135315
	Arsenic	495	500	99	90 - 110	P	04/04/2025	16:10	LB135315
	Barium	2460	2500	98	90 - 110	P	04/04/2025	16:10	LB135315
	Beryllium	511	500	102	90 - 110	P	04/04/2025	16:10	LB135315
	Cadmium	478	500	96	90 - 110	P	04/04/2025	16:10	LB135315
	Chromium	498	500	100	90 - 110	P	04/04/2025	16:10	LB135315
	Copper	4760	5000	95	90 - 110	P	04/04/2025	16:10	LB135315
	Iron	126000	125000	101	90 - 110	P	04/04/2025	16:10	LB135315
	Lead	2520	2500	101	90 - 110	P	04/04/2025	16:10	LB135315
	Magnesium	249000	250000	100	90 - 110	P	04/04/2025	16:10	LB135315
	Manganese	4840	5000	97	90 - 110	P	04/04/2025	16:10	LB135315
	Potassium	126000	125000	101	90 - 110	P	04/04/2025	16:10	LB135315
	Selenium	470	500	94	90 - 110	P	04/04/2025	16:10	LB135315
	Sodium	248000	250000	99	90 - 110	P	04/04/2025	16:10	LB135315
CCV03	Aluminum	48800	50000	98	90 - 110	P	04/04/2025	16:24	LB135315
	Antimony	484	500	97	90 - 110	P	04/04/2025	16:24	LB135315
	Arsenic	487	500	97	90 - 110	P	04/04/2025	16:24	LB135315
	Barium	2410	2500	96	90 - 110	P	04/04/2025	16:24	LB135315

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. SDG No.: Q1731
Contract: JACO05 Lab Code: CHEM Case No.: Q1731 SAS No.: Q1731
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
CCV03	Beryllium	507	500	102	90 - 110	P	04/04/2025	16:24	LB135315
	Cadmium	467	500	93	90 - 110	P	04/04/2025	16:24	LB135315
	Chromium	494	500	99	90 - 110	P	04/04/2025	16:24	LB135315
	Copper	4700	5000	94	90 - 110	P	04/04/2025	16:24	LB135315
	Iron	123000	125000	99	90 - 110	P	04/04/2025	16:24	LB135315
	Lead	2490	2500	100	90 - 110	P	04/04/2025	16:24	LB135315
	Magnesium	247000	250000	99	90 - 110	P	04/04/2025	16:24	LB135315
	Manganese	4740	5000	95	90 - 110	P	04/04/2025	16:24	LB135315
	Potassium	124000	125000	99	90 - 110	P	04/04/2025	16:24	LB135315
	Selenium	470	500	94	90 - 110	P	04/04/2025	16:24	LB135315
	Sodium	246000	250000	99	90 - 110	P	04/04/2025	16:24	LB135315

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. SDG No.: Q1731
 Contract: JACO05 Lab Code: CHEM Case No.: Q1731 SAS No.: Q1731
 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
ICV01	Aluminum	468	500	94	90 - 110	P	04/07/2025	12:40	LB135332
	Antimony	197	200	98	90 - 110	P	04/07/2025	12:40	LB135332
	Arsenic	196	200	98	90 - 110	P	04/07/2025	12:40	LB135332
	Barium	99.6	100	100	90 - 110	P	04/07/2025	12:40	LB135332
	Beryllium	94.6	100	95	90 - 110	P	04/07/2025	12:40	LB135332
	Cadmium	106	100	106	90 - 110	P	04/07/2025	12:40	LB135332
	Chromium	99.1	100	99	90 - 110	P	04/07/2025	12:40	LB135332
	Copper	93.3	100	93	90 - 110	P	04/07/2025	12:40	LB135332
	Iron	1980	2000	99	90 - 110	P	04/07/2025	12:40	LB135332
	Lead	198	200	99	90 - 110	P	04/07/2025	12:40	LB135332
	Magnesium	1180	1200	99	90 - 110	P	04/07/2025	12:40	LB135332
	Manganese	93.7	100	94	90 - 110	P	04/07/2025	12:40	LB135332
	Potassium	1840	2000	92	90 - 110	P	04/07/2025	12:40	LB135332
	Selenium	200	200	100	90 - 110	P	04/07/2025	12:40	LB135332
	Sodium	2010	2000	100	90 - 110	P	04/07/2025	12:40	LB135332

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. SDG No.: Q1731
 Contract: JACO05 Lab Code: CHEM Case No.: Q1731 SAS No.: Q1731
 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
LLICV	Aluminum	23.7	20.0	119	80 - 120	P	04/07/2025	12:44	LB135332
	Antimony	1.89	2.0	94	80 - 120	P	04/07/2025	12:44	LB135332
	Arsenic	0.98	1.0	98	80 - 120	P	04/07/2025	12:44	LB135332
	Barium	9.25	10.0	92	80 - 120	P	04/07/2025	12:44	LB135332
	Beryllium	1.04	1.0	104	80 - 120	P	04/07/2025	12:44	LB135332
	Cadmium	0.93	1.0	93	80 - 120	P	04/07/2025	12:44	LB135332
	Chromium	2.00	2.0	100	80 - 120	P	04/07/2025	12:44	LB135332
	Copper	1.94	2.0	97	80 - 120	P	04/07/2025	12:44	LB135332
	Iron	50.0	50.0	100	80 - 120	P	04/07/2025	12:44	LB135332
	Lead	0.94	1.0	94	80 - 120	P	04/07/2025	12:44	LB135332
	Magnesium	533	500	106	80 - 120	P	04/07/2025	12:44	LB135332
	Manganese	0.99	1.0	99	80 - 120	P	04/07/2025	12:44	LB135332
	Potassium	488	500	98	80 - 120	P	04/07/2025	12:44	LB135332
	Selenium	4.90	5.0	98	80 - 120	P	04/07/2025	12:44	LB135332
	Sodium	533	500	107	80 - 120	P	04/07/2025	12:44	LB135332

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. SDG No.: Q1731
Contract: JACO05 Lab Code: CHEM Case No.: Q1731 SAS No.: Q1731
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
CCV01	Aluminum	53100	50000	106	90 - 110	P	04/07/2025	13:07	LB135332
	Antimony	519	500	104	90 - 110	P	04/07/2025	13:07	LB135332
	Arsenic	513	500	103	90 - 110	P	04/07/2025	13:07	LB135332
	Barium	2590	2500	104	90 - 110	P	04/07/2025	13:07	LB135332
	Beryllium	539	500	108	90 - 110	P	04/07/2025	13:07	LB135332
	Cadmium	510	500	102	90 - 110	P	04/07/2025	13:07	LB135332
	Chromium	514	500	103	90 - 110	P	04/07/2025	13:07	LB135332
	Copper	4640	5000	93	90 - 110	P	04/07/2025	13:07	LB135332
	Iron	124000	125000	99	90 - 110	P	04/07/2025	13:07	LB135332
	Lead	2550	2500	102	90 - 110	P	04/07/2025	13:07	LB135332
	Magnesium	267000	250000	107	90 - 110	P	04/07/2025	13:07	LB135332
	Manganese	5070	5000	101	90 - 110	P	04/07/2025	13:07	LB135332
	Potassium	131000	125000	104	90 - 110	P	04/07/2025	13:07	LB135332
	Selenium	494	500	99	90 - 110	P	04/07/2025	13:07	LB135332
	Sodium	269000	250000	108	90 - 110	P	04/07/2025	13:07	LB135332
CCV02	Aluminum	52200	50000	104	90 - 110	P	04/07/2025	13:58	LB135332
	Antimony	511	500	102	90 - 110	P	04/07/2025	13:58	LB135332
	Arsenic	479	500	96	90 - 110	P	04/07/2025	13:58	LB135332
	Barium	2530	2500	101	90 - 110	P	04/07/2025	13:58	LB135332
	Beryllium	513	500	102	90 - 110	P	04/07/2025	13:58	LB135332
	Cadmium	500	500	100	90 - 110	P	04/07/2025	13:58	LB135332
	Chromium	492	500	98	90 - 110	P	04/07/2025	13:58	LB135332
	Copper	4770	5000	95	90 - 110	P	04/07/2025	13:58	LB135332
	Iron	119000	125000	95	90 - 110	P	04/07/2025	13:58	LB135332
	Lead	2480	2500	99	90 - 110	P	04/07/2025	13:58	LB135332
	Magnesium	260000	250000	104	90 - 110	P	04/07/2025	13:58	LB135332
	Manganese	4870	5000	97	90 - 110	P	04/07/2025	13:58	LB135332
	Potassium	128000	125000	103	90 - 110	P	04/07/2025	13:58	LB135332
	Selenium	471	500	94	90 - 110	P	04/07/2025	13:58	LB135332
	Sodium	269000	250000	108	90 - 110	P	04/07/2025	13:58	LB135332
CCV03	Aluminum	53400	50000	107	90 - 110	P	04/07/2025	15:00	LB135332
	Antimony	499	500	100	90 - 110	P	04/07/2025	15:00	LB135332
	Arsenic	476	500	95	90 - 110	P	04/07/2025	15:00	LB135332
	Barium	2480	2500	99	90 - 110	P	04/07/2025	15:00	LB135332

Metals

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INITIAL AND CONTINUING CALIBRATION VERIFICATION

Client: JACOBS Engineering Group, Inc. **SDG No.:** Q1731

Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731

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
CCV03	Beryllium	499	500	100	90 - 110	P	04/07/2025	15:00	LB135332
	Cadmium	493	500	98	90 - 110	P	04/07/2025	15:00	LB135332
	Chromium	510	500	102	90 - 110	P	04/07/2025	15:00	LB135332
	Copper	5200	5000	104	90 - 110	P	04/07/2025	15:00	LB135332
	Iron	125000	125000	100	90 - 110	P	04/07/2025	15:00	LB135332
	Lead	2460	2500	98	90 - 110	P	04/07/2025	15:00	LB135332
	Magnesium	268000	250000	107	90 - 110	P	04/07/2025	15:00	LB135332
	Manganese	5040	5000	101	90 - 110	P	04/07/2025	15:00	LB135332
	Potassium	129000	125000	103	90 - 110	P	04/07/2025	15:00	LB135332
	Selenium	469	500	94	90 - 110	P	04/07/2025	15:00	LB135332
	Sodium	272000	250000	109	90 - 110	P	04/07/2025	15:00	LB135332

Metals

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CRDL STANDARD FOR AA & ICP

Client: JACOBS Engineering Group, Inc. **SDG No.:** Q1731
Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731
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
CRI	Aluminum	18.5	20.0	93	70 - 130	P	04/04/2025	15:37	LB135315
	Antimony	2.01	2.0	100	70 - 130	P	04/04/2025	15:37	LB135315
	Arsenic	1.10	1.0	110	70 - 130	P	04/04/2025	15:37	LB135315
	Barium	9.75	10.0	98	70 - 130	P	04/04/2025	15:37	LB135315
	Beryllium	1.04	1.0	104	70 - 130	P	04/04/2025	15:37	LB135315
	Cadmium	0.93	1.0	93	70 - 130	P	04/04/2025	15:37	LB135315
	Chromium	2.02	2.0	101	70 - 130	P	04/04/2025	15:37	LB135315
	Copper	2.40	2.0	120	70 - 130	P	04/04/2025	15:37	LB135315
	Iron	54.1	50.0	108	70 - 130	P	04/04/2025	15:37	LB135315
	Lead	0.98	1.0	98	70 - 130	P	04/04/2025	15:37	LB135315
	Magnesium	485	500	97	70 - 130	P	04/04/2025	15:37	LB135315
	Manganese	1.01	1.0	101	50 - 150	P	04/04/2025	15:37	LB135315
	Potassium	488	500	98	70 - 130	P	04/04/2025	15:37	LB135315
	Selenium	5.10	5.0	102	70 - 130	P	04/04/2025	15:37	LB135315
	Sodium	498	500	100	70 - 130	P	04/04/2025	15:37	LB135315
CRI	Aluminum	24.5	20.0	123	70 - 130	P	04/07/2025	13:20	LB135332
	Antimony	1.92	2.0	96	70 - 130	P	04/07/2025	13:20	LB135332
	Arsenic	1.03	1.0	103	70 - 130	P	04/07/2025	13:20	LB135332
	Barium	9.37	10.0	94	70 - 130	P	04/07/2025	13:20	LB135332
	Beryllium	1.00	1.0	100	70 - 130	P	04/07/2025	13:20	LB135332
	Cadmium	0.95	1.0	95	70 - 130	P	04/07/2025	13:20	LB135332
	Chromium	1.87	2.0	94	70 - 130	P	04/07/2025	13:20	LB135332
	Copper	1.86	2.0	93	70 - 130	P	04/07/2025	13:20	LB135332
	Iron	48.5	50.0	97	70 - 130	P	04/07/2025	13:20	LB135332
	Lead	0.91	1.0	91	70 - 130	P	04/07/2025	13:20	LB135332
	Magnesium	541	500	108	70 - 130	P	04/07/2025	13:20	LB135332
	Manganese	1.00	1.0	100	50 - 150	P	04/07/2025	13:20	LB135332
	Potassium	513	500	103	70 - 130	P	04/07/2025	13:20	LB135332
	Selenium	4.91	5.0	98	70 - 130	P	04/07/2025	13:20	LB135332
	Sodium	564	500	113	70 - 130	P	04/07/2025	13:20	LB135332

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: JACOBS Engineering Group, Inc. **SDG No.:** Q1731
Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	20.0	+/-20.0	U	20.0	P	04/04/2025	15:20	LB135315
	Antimony	2.00	+/-2.00	U	2.00	P	04/04/2025	15:20	LB135315
	Arsenic	1.00	+/-1.00	U	1.00	P	04/04/2025	15:20	LB135315
	Barium	10.0	+/-10.0	U	10.0	P	04/04/2025	15:20	LB135315
	Beryllium	1.00	+/-1.00	U	1.00	P	04/04/2025	15:20	LB135315
	Cadmium	1.00	+/-1.00	U	1.00	P	04/04/2025	15:20	LB135315
	Chromium	2.00	+/-2.00	U	2.00	P	04/04/2025	15:20	LB135315
	Copper	2.00	+/-2.00	U	2.00	P	04/04/2025	15:20	LB135315
	Iron	50.0	+/-50.0	U	50.0	P	04/04/2025	15:20	LB135315
	Lead	1.00	+/-1.00	U	1.00	P	04/04/2025	15:20	LB135315
	Magnesium	500	+/-500	U	500	P	04/04/2025	15:20	LB135315
	Manganese	1.00	+/-1.00	U	1.00	P	04/04/2025	15:20	LB135315
	Potassium	500	+/-500	U	500	P	04/04/2025	15:20	LB135315
	Selenium	5.00	+/-5.00	U	5.00	P	04/04/2025	15:20	LB135315
	Sodium	500	+/-500	U	500	P	04/04/2025	15:20	LB135315

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: JACOBS Engineering Group, Inc.		SDG No.: Q1731							
Contract: JACO05	Lab Code: CHEM	Case No.: Q1731	SAS No.: Q1731						
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	20.0	+/-20.0	U	20.0	P	04/04/2025	15:33	LB135315
	Antimony	2.00	+/-2.00	U	2.00	P	04/04/2025	15:33	LB135315
	Arsenic	1.00	+/-1.00	U	1.00	P	04/04/2025	15:33	LB135315
	Barium	10.0	+/-10.0	U	10.0	P	04/04/2025	15:33	LB135315
	Beryllium	1.00	+/-1.00	U	1.00	P	04/04/2025	15:33	LB135315
	Cadmium	1.00	+/-1.00	U	1.00	P	04/04/2025	15:33	LB135315
	Chromium	2.00	+/-2.00	U	2.00	P	04/04/2025	15:33	LB135315
	Copper	0.61	+/-2.00	J	2.00	P	04/04/2025	15:33	LB135315
	Iron	50.0	+/-50.0	U	50.0	P	04/04/2025	15:33	LB135315
	Lead	1.00	+/-1.00	U	1.00	P	04/04/2025	15:33	LB135315
	Magnesium	500	+/-500	U	500	P	04/04/2025	15:33	LB135315
	Manganese	1.00	+/-1.00	U	1.00	P	04/04/2025	15:33	LB135315
	Potassium	500	+/-500	U	500	P	04/04/2025	15:33	LB135315
	Selenium	5.00	+/-5.00	U	5.00	P	04/04/2025	15:33	LB135315
	Sodium	500	+/-500	U	500	P	04/04/2025	15:33	LB135315
CCB02	Aluminum	20.0	+/-20.0	U	20.0	P	04/04/2025	16:15	LB135315
	Antimony	2.00	+/-2.00	U	2.00	P	04/04/2025	16:15	LB135315
	Arsenic	1.00	+/-1.00	U	1.00	P	04/04/2025	16:15	LB135315
	Barium	10.0	+/-10.0	U	10.0	P	04/04/2025	16:15	LB135315
	Beryllium	1.00	+/-1.00	U	1.00	P	04/04/2025	16:15	LB135315
	Cadmium	1.00	+/-1.00	U	1.00	P	04/04/2025	16:15	LB135315
	Chromium	0.40	+/-2.00	J	2.00	P	04/04/2025	16:15	LB135315
	Copper	0.36	+/-2.00	J	2.00	P	04/04/2025	16:15	LB135315
	Iron	50.0	+/-50.0	U	50.0	P	04/04/2025	16:15	LB135315
	Lead	1.00	+/-1.00	U	1.00	P	04/04/2025	16:15	LB135315
	Magnesium	500	+/-500	U	500	P	04/04/2025	16:15	LB135315
	Manganese	1.00	+/-1.00	U	1.00	P	04/04/2025	16:15	LB135315
	Potassium	500	+/-500	U	500	P	04/04/2025	16:15	LB135315
	Selenium	5.00	+/-5.00	U	5.00	P	04/04/2025	16:15	LB135315
	Sodium	500	+/-500	U	500	P	04/04/2025	16:15	LB135315
CCB03	Aluminum	20.0	+/-20.0	U	20.0	P	04/04/2025	16:28	LB135315
	Antimony	2.00	+/-2.00	U	2.00	P	04/04/2025	16:28	LB135315
	Arsenic	1.00	+/-1.00	U	1.00	P	04/04/2025	16:28	LB135315
	Barium	10.0	+/-10.0	U	10.0	P	04/04/2025	16:28	LB135315
	Beryllium	1.00	+/-1.00	U	1.00	P	04/04/2025	16:28	LB135315
	Cadmium	1.00	+/-1.00	U	1.00	P	04/04/2025	16:28	LB135315
	Chromium	0.35	+/-2.00	J	2.00	P	04/04/2025	16:28	LB135315
	Copper	0.33	+/-2.00	J	2.00	P	04/04/2025	16:28	LB135315
	Iron	50.0	+/-50.0	U	50.0	P	04/04/2025	16:28	LB135315

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: JACOBS Engineering Group, Inc.		SDG No.: Q1731							
Contract: JACO05	Lab Code: CHEM	Case No.: Q1731	SAS No.: Q1731						
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB03	Lead	1.00	+/-1.00	U	1.00	P	04/04/2025	16:28	LB135315
	Magnesium	500	+/-500	U	500	P	04/04/2025	16:28	LB135315
	Manganese	1.00	+/-1.00	U	1.00	P	04/04/2025	16:28	LB135315
	Potassium	500	+/-500	U	500	P	04/04/2025	16:28	LB135315
	Selenium	5.00	+/-5.00	U	5.00	P	04/04/2025	16:28	LB135315
	Sodium	500	+/-500	U	500	P	04/04/2025	16:28	LB135315

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: JACOBS Engineering Group, Inc.		SDG No.: Q1731							
Contract: JACO05	Lab Code: CHEM	Case No.: Q1731	SAS No.: Q1731						
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
ICB01	Aluminum	2.11	+/-20.0	J	20.0	P	04/07/2025	12:48	LB135332
	Antimony	2.00	+/-2.00	U	2.00	P	04/07/2025	12:48	LB135332
	Arsenic	1.00	+/-1.00	U	1.00	P	04/07/2025	12:48	LB135332
	Barium	10.0	+/-10.0	U	10.0	P	04/07/2025	12:48	LB135332
	Beryllium	1.00	+/-1.00	U	1.00	P	04/07/2025	12:48	LB135332
	Cadmium	1.00	+/-1.00	U	1.00	P	04/07/2025	12:48	LB135332
	Chromium	2.00	+/-2.00	U	2.00	P	04/07/2025	12:48	LB135332
	Copper	2.00	+/-2.00	U	2.00	P	04/07/2025	12:48	LB135332
	Iron	50.0	+/-50.0	U	50.0	P	04/07/2025	12:48	LB135332
	Lead	1.00	+/-1.00	U	1.00	P	04/07/2025	12:48	LB135332
	Magnesium	500	+/-500	U	500	P	04/07/2025	12:48	LB135332
	Manganese	1.00	+/-1.00	U	1.00	P	04/07/2025	12:48	LB135332
	Potassium	500	+/-500	U	500	P	04/07/2025	12:48	LB135332
	Selenium	5.00	+/-5.00	U	5.00	P	04/07/2025	12:48	LB135332
	Sodium	500	+/-500	U	500	P	04/07/2025	12:48	LB135332

Metals

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INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: JACOBS Engineering Group, Inc.		SDG No.: Q1731							
Contract: JACO05	Lab Code: CHEM	Case No.: Q1731	SAS No.: Q1731						
Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB01	Aluminum	20.0	+/-20.0	U	20.0	P	04/07/2025	13:17	LB135332
	Antimony	2.00	+/-2.00	U	2.00	P	04/07/2025	13:17	LB135332
	Arsenic	1.00	+/-1.00	U	1.00	P	04/07/2025	13:17	LB135332
	Barium	10.0	+/-10.0	U	10.0	P	04/07/2025	13:17	LB135332
	Beryllium	1.00	+/-1.00	U	1.00	P	04/07/2025	13:17	LB135332
	Cadmium	1.00	+/-1.00	U	1.00	P	04/07/2025	13:17	LB135332
	Chromium	2.00	+/-2.00	U	2.00	P	04/07/2025	13:17	LB135332
	Copper	2.00	+/-2.00	U	2.00	P	04/07/2025	13:17	LB135332
	Iron	50.0	+/-50.0	U	50.0	P	04/07/2025	13:17	LB135332
	Lead	1.00	+/-1.00	U	1.00	P	04/07/2025	13:17	LB135332
	Magnesium	500	+/-500	U	500	P	04/07/2025	13:17	LB135332
	Manganese	1.00	+/-1.00	U	1.00	P	04/07/2025	13:17	LB135332
	Potassium	500	+/-500	U	500	P	04/07/2025	13:17	LB135332
	Selenium	5.00	+/-5.00	U	5.00	P	04/07/2025	13:17	LB135332
	Sodium	500	+/-500	U	500	P	04/07/2025	13:17	LB135332
CCB02	Aluminum	20.0	+/-20.0	U	20.0	P	04/07/2025	14:05	LB135332
	Antimony	2.00	+/-2.00	U	2.00	P	04/07/2025	14:05	LB135332
	Arsenic	1.00	+/-1.00	U	1.00	P	04/07/2025	14:05	LB135332
	Barium	10.0	+/-10.0	U	10.0	P	04/07/2025	14:05	LB135332
	Beryllium	1.00	+/-1.00	U	1.00	P	04/07/2025	14:05	LB135332
	Cadmium	1.00	+/-1.00	U	1.00	P	04/07/2025	14:05	LB135332
	Chromium	2.00	+/-2.00	U	2.00	P	04/07/2025	14:05	LB135332
	Copper	2.00	+/-2.00	U	2.00	P	04/07/2025	14:05	LB135332
	Iron	50.0	+/-50.0	U	50.0	P	04/07/2025	14:05	LB135332
	Lead	1.00	+/-1.00	U	1.00	P	04/07/2025	14:05	LB135332
	Magnesium	500	+/-500	U	500	P	04/07/2025	14:05	LB135332
	Manganese	1.00	+/-1.00	U	1.00	P	04/07/2025	14:05	LB135332
	Potassium	500	+/-500	U	500	P	04/07/2025	14:05	LB135332
	Selenium	5.00	+/-5.00	U	5.00	P	04/07/2025	14:05	LB135332
	Sodium	500	+/-500	U	500	P	04/07/2025	14:05	LB135332
CCB03	Aluminum	20.0	+/-20.0	U	20.0	P	04/07/2025	15:13	LB135332
	Antimony	2.00	+/-2.00	U	2.00	P	04/07/2025	15:13	LB135332
	Arsenic	1.00	+/-1.00	U	1.00	P	04/07/2025	15:13	LB135332
	Barium	10.0	+/-10.0	U	10.0	P	04/07/2025	15:13	LB135332
	Beryllium	1.00	+/-1.00	U	1.00	P	04/07/2025	15:13	LB135332
	Cadmium	1.00	+/-1.00	U	1.00	P	04/07/2025	15:13	LB135332
	Chromium	2.00	+/-2.00	U	2.00	P	04/07/2025	15:13	LB135332
	Copper	2.00	+/-2.00	U	2.00	P	04/07/2025	15:13	LB135332
	Iron	50.0	+/-50.0	U	50.0	P	04/07/2025	15:13	LB135332

Metals

- 3a -

INITIAL AND CONTINUING CALIBRATION BLANK SUMMARY

Client: JACOBS Engineering Group, Inc. **SDG No.:** Q1731
Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731

Sample ID	Analyte	Result ug/L	Acceptance Limit	Conc Qual	CRQL	M	Analysis Date	Analysis Time	Run Number
CCB03	Lead	1.00	+/-1.00	U	1.00	P	04/07/2025	15:13	LB135332
	Magnesium	500	+/-500	U	500	P	04/07/2025	15:13	LB135332
	Manganese	1.00	+/-1.00	U	1.00	P	04/07/2025	15:13	LB135332
	Potassium	500	+/-500	U	500	P	04/07/2025	15:13	LB135332
	Selenium	5.00	+/-5.00	U	5.00	P	04/07/2025	15:13	LB135332
	Sodium	500	+/-500	U	500	P	04/07/2025	15:13	LB135332

Metals
- 3b -
PREPARATION BLANK SUMMARY

Client: JACOBS Engineering Group, Inc.

SDG No.: Q1731

Instrument: P7

Sample ID	Analyte	Result (ug/L)	Acceptance Limit	Conc Qual	CRQL ug/L	M	Analysis Date	Analysis Time	Run
PB167465BL	WATER			Batch Number:	PB167465		Prep Date:	04/04/2025	
	Aluminum	20.0	<20.0	U	20.0	P	04/04/2025	15:40	LB135315
	Antimony	2.00	<2.00	U	2.00	P	04/04/2025	15:40	LB135315
	Arsenic	1.00	<1.00	U	1.00	P	04/04/2025	15:40	LB135315
	Barium	10.0	<10.0	U	10.0	P	04/04/2025	15:40	LB135315
	Beryllium	1.00	<1.00	U	1.00	P	04/04/2025	15:40	LB135315
	Cadmium	1.00	<1.00	U	1.00	P	04/04/2025	15:40	LB135315
	Chromium	2.00	<2.00	U	2.00	P	04/04/2025	15:40	LB135315
	Copper	2.00	<2.00	U	2.00	P	04/04/2025	15:40	LB135315
	Iron	50.0	<50.0	U	50.0	P	04/04/2025	15:40	LB135315
	Lead	1.00	<1.00	U	1.00	P	04/04/2025	15:40	LB135315
	Magnesium	500	<500	U	500	P	04/04/2025	15:40	LB135315
	Manganese	1.00	<1.00	U	1.00	P	04/04/2025	15:40	LB135315
	Potassium	500	<500	U	500	P	04/04/2025	15:40	LB135315
	Selenium	5.00	<5.00	U	5.00	P	04/04/2025	15:40	LB135315
	Sodium	500	<500	U	500	P	04/04/2025	15:40	LB135315

Metals
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INTERFERENCE CHECK SAMPLE

Client: JACOBS Engineering Group, Inc. **SDG No.:** Q1731
Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731
ICS Source: EPA **Instrument ID:** P7

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	97000	100000	97	0	0	04/04/2025	15:24	LB135315
	Antimony	1.32	1.5	88	-2.5	5.5	04/04/2025	15:24	LB135315
	Arsenic	0.34	0.1	340	-1.9	2.1	04/04/2025	15:24	LB135315
	Barium	1.56	1.2	130	-18.8	21.2	04/04/2025	15:24	LB135315
	Beryllium	0.30			-2	2	04/04/2025	15:24	LB135315
	Cadmium	0.19	0.7	27	-1.3	2.7	04/04/2025	15:24	LB135315
	Chromium	21.2	21.0	101	17	25	04/04/2025	15:24	LB135315
	Copper	9.82	8.0	123	4	12	04/04/2025	15:24	LB135315
	Iron	106000	100000	106	0	0	04/04/2025	15:24	LB135315
	Lead	4.72	4.0	118	2	6	04/04/2025	15:24	LB135315
	Magnesium	99300	100000	99	0	0	04/04/2025	15:24	LB135315
	Manganese	7.49	7.0	107	5	9	04/04/2025	15:24	LB135315
	Potassium	103000	100000	103	0	0	04/04/2025	15:24	LB135315
ICSAB01	Selenium	0	0.3		-9.7	10	04/04/2025	15:24	LB135315
	Sodium	107000	100000	107	0	0	04/04/2025	15:24	LB135315
	Aluminum	90300	100000	90	0	0	04/04/2025	15:27	LB135315
	Antimony	20.8	22.0	94	18	26	04/04/2025	15:27	LB135315
	Arsenic	20.4	19.0	107	16.2	21.9	04/04/2025	15:27	LB135315
	Barium	21.1	22.0	96	2	42	04/04/2025	15:27	LB135315
	Beryllium	21.3	19.0	112	16.2	21.9	04/04/2025	15:27	LB135315
	Cadmium	19.6	20.0	98	17	23	04/04/2025	15:27	LB135315
	Chromium	40.5	40.0	101	34	46	04/04/2025	15:27	LB135315
	Copper	27.9	25.0	112	21	29	04/04/2025	15:27	LB135315
	Iron	99500	100000	100	0	0	04/04/2025	15:27	LB135315
	Lead	23.9	25.0	96	21.3	28.8	04/04/2025	15:27	LB135315
	Magnesium	92200	100000	92	0	0	04/04/2025	15:27	LB135315
ICSA01	Manganese	25.7	27.0	95	23	31.1	04/04/2025	15:27	LB135315
	Potassium	97200	100000	97	0	0	04/04/2025	15:27	LB135315
	Selenium	19.9	19.0	105	9	29	04/04/2025	15:27	LB135315
	Sodium	100000	100000	100	0	0	04/04/2025	15:27	LB135315
	Aluminum	94800	100000	95	0	0	04/07/2025	12:57	LB135332
	Antimony	1.24	1.5	83	-2.5	5.5	04/07/2025	12:57	LB135332
	Arsenic	0.37	0.1	370	-1.9	2.1	04/07/2025	12:57	LB135332
	Barium	1.42	1.2	118	-18.8	21.2	04/07/2025	12:57	LB135332
	Beryllium	0			-2	2	04/07/2025	12:57	LB135332
	Cadmium	0.49	0.7	70	-1.3	2.7	04/07/2025	12:57	LB135332
	Chromium	19.4	21.0	92	17	25	04/07/2025	12:57	LB135332
	Copper	6.88	8.0	86	4	12	04/07/2025	12:57	LB135332
	Iron	102000	100000	102	0	0	04/07/2025	12:57	LB135332
	Lead	4.37	4.0	109	2	6	04/07/2025	12:57	LB135332
	Magnesium	102000	100000	102	0	0	04/07/2025	12:57	LB135332
	Manganese	6.78	7.0	97	5	9	04/07/2025	12:57	LB135332

Metals
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INTERFERENCE CHECK SAMPLE

Client: JACOBS Engineering Group, Inc. **SDG No.:** Q1731
Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731
ICS Source: EPA **Instrument ID:** P8

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	Potassium	102000	100000	102	0	0	04/07/2025	12:57	LB135332
	Selenium	0.10	0.3	33	-9.7	10	04/07/2025	12:57	LB135332
	Sodium	109000	100000	109	0	0	04/07/2025	12:57	LB135332
ICSAB01	Aluminum	96200	100000	96	0	0	04/07/2025	13:04	LB135332
	Antimony	21.3	22.0	97	18	26	04/07/2025	13:04	LB135332
	Arsenic	21.0	19.0	110	16.2	21.9	04/07/2025	13:04	LB135332
	Barium	21.5	22.0	98	2	42	04/07/2025	13:04	LB135332
	Beryllium	21.3	19.0	112	16.2	21.9	04/07/2025	13:04	LB135332
	Cadmium	20.8	20.0	104	17	23	04/07/2025	13:04	LB135332
	Chromium	39.6	40.0	99	34	46	04/07/2025	13:04	LB135332
	Copper	24.7	25.0	99	21	29	04/07/2025	13:04	LB135332
	Iron	101000	100000	101	0	0	04/07/2025	13:04	LB135332
	Lead	23.7	25.0	95	21.3	28.8	04/07/2025	13:04	LB135332
	Magnesium	103000	100000	103	0	0	04/07/2025	13:04	LB135332
	Manganese	24.9	27.0	92	23	31.1	04/07/2025	13:04	LB135332
	Potassium	103000	100000	103	0	0	04/07/2025	13:04	LB135332
	Selenium	21.2	19.0	112	9	29	04/07/2025	13:04	LB135332
	Sodium	110000	100000	110	0	0	04/07/2025	13:04	LB135332



METAL QC DATA

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metals
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MATRIX SPIKE SUMMARY

client:	<u>JACOBS Engineering Group, Inc.</u>	level:	<u>low</u>	sdg no.:	<u>Q1731</u>
contract:	<u>JACO05</u>	lab code:	<u>CHEM</u>	case no.:	<u>Q1731</u>
matrix:	<u>Water</u>	sample id:	<u>Q1711-01</u>	client id:	<u>MW-18B-56-040225MS</u>
Percent Solids for Sample:	<u>NA</u>	Spiked ID:	<u>Q1711-02</u>	Percent Solids for Spike Sample:	<u>NA</u>

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75 - 125	9970		1470		10000	85		P
Antimony	ug/L	75 - 125	474		1.67	J	500	95		P
Arsenic	ug/L	75 - 125	0.93	J	0.85	J	500	0	N	P
Barium	ug/L	75 - 125	2240		119		2500	85		P
Beryllium	ug/L	75 - 125	491		1.00	U	500	98		P
Cadmium	ug/L	75 - 125	461		1.00	U	500	92		P
Chromium	ug/L	75 - 125	456		0.58	J	500	91		P
Copper	ug/L	75 - 125	4200		2.00	U	5000	84		P
Iron	ug/L	75 - 125	23000		560		25000	90		P
Lead	ug/L	75 - 125	2340		1.00	U	2500	94		P
Magnesium	ug/L	75 - 125	46600		315	J	50000	93		P
Manganese	ug/L	75 - 125	4190		4.19		5000	84		P
Potassium	ug/L	75 - 125	40800		23000		25000	71	N	P
Selenium	ug/L	75 - 125	481		5.00	U	500	96		P
Sodium	ug/L	75 - 125	64500		20000		50000	89		P

metals
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MATRIX SPIKE DUPLICATE SUMMARY

client: JACOBS Engineering Group, Inc. **level:** low **sdg no.:** Q1731
contract: JACO05 **lab code:** CHEM **case no.:** Q1731 **sas no.:** Q1731
matrix: Water **sample id:** Q1711-01 **client id:** MW-18B-56-040225MSD
Percent Solids for Sample: NA **Spiked ID:** Q1711-03 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75 - 125	10200		1470		10000	87		P
Antimony	ug/L	75 - 125	489		1.67	J	500	97		P
Arsenic	ug/L	75 - 125	1.01		0.85	J	500	0	N	P
Barium	ug/L	75 - 125	2280		119		2500	87		P
Beryllium	ug/L	75 - 125	495		1.00	U	500	99		P
Cadmium	ug/L	75 - 125	472		1.00	U	500	94		P
Chromium	ug/L	75 - 125	465		0.58	J	500	93		P
Copper	ug/L	75 - 125	4290		2.00	U	5000	86		P
Iron	ug/L	75 - 125	23400		560		25000	91		P
Lead	ug/L	75 - 125	2400		1.00	U	2500	96		P
Magnesium	ug/L	75 - 125	46800		315	J	50000	93		P
Manganese	ug/L	75 - 125	4270		4.19		5000	85		P
Potassium	ug/L	75 - 125	42000		23000		25000	76		P
Selenium	ug/L	75 - 125	490		5.00	U	500	98		P
Sodium	ug/L	75 - 125	64300		20000		50000	89		P

metals
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MATRIX SPIKE SUMMARY

client: <u>JACOBS Engineering Group, Inc.</u>	level: <u>low</u>	sdg no.: <u>Q1731</u>
contract: <u>JACO05</u>	lab code: <u>CHEM</u>	case no.: <u>Q1731</u> sas no.: <u>Q1731</u>
matrix: <u>Water</u>	sample id: <u>Q1711-14</u>	client id: <u>MW-18B-56-040225MS</u>
Percent Solids for Sample: <u>NA</u>	Spiked ID: <u>Q1711-15</u>	Percent Solids for Spike Sample: <u>NA</u>

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75 - 125	10700		1520		10000	92		P
Antimony	ug/L	75 - 125	514		1.75	J	500	102		P
Arsenic	ug/L	75 - 125	0.98	J	0.93	J	500	0	N	P
Barium	ug/L	75 - 125	2370		124		2500	90		P
Beryllium	ug/L	75 - 125	469		1.00	U	500	94		P
Cadmium	ug/L	75 - 125	507		1.00	U	500	101		P
Chromium	ug/L	75 - 125	470		2.00	U	500	94		P
Copper	ug/L	75 - 125	4210		2.00	U	5000	84		P
Iron	ug/L	75 - 125	21600		40.3	J	25000	86		P
Lead	ug/L	75 - 125	2400		1.00	U	2500	96		P
Magnesium	ug/L	75 - 125	52500		399	J	50000	104		P
Manganese	ug/L	75 - 125	4360		9.43		5000	87		P
Potassium	ug/L	75 - 125	45200		25100		25000	81		P
Selenium	ug/L	75 - 125	479		5.00	U	500	96		P
Sodium	ug/L	75 - 125	71500		22000		50000	99		P

metals
- 5a -
MATRIX SPIKE DUPLICATE SUMMARY

client: JACOBS Engineering Group, Inc. **level:** low **sdg no.:** Q1731

contract: JACO05 **lab code:** CHEM **case no.:** Q1731 **sas no.:** Q1731

matrix: Water **sample id:** Q1711-14 **client id:** MW-18B-56-040225MSD

Percent Solids for Sample: NA **Spiked ID:** Q1711-16 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit %R	MSD Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Aluminum	ug/L	75 - 125	10700		1520		10000	91		P
Antimony	ug/L	75 - 125	511		1.75	J	500	102		P
Arsenic	ug/L	75 - 125	0.95	J	0.93	J	500	0	N	P
Barium	ug/L	75 - 125	2340		124		2500	89		P
Beryllium	ug/L	75 - 125	478		1.00	U	500	96		P
Cadmium	ug/L	75 - 125	502		1.00	U	500	100		P
Chromium	ug/L	75 - 125	474		2.00	U	500	95		P
Copper	ug/L	75 - 125	4210		2.00	U	5000	84		P
Iron	ug/L	75 - 125	21900		40.3	J	25000	87		P
Lead	ug/L	75 - 125	2440		1.00	U	2500	98		P
Magnesium	ug/L	75 - 125	52900		399	J	50000	105		P
Manganese	ug/L	75 - 125	4380		9.43		5000	87		P
Potassium	ug/L	75 - 125	45600		25100		25000	82		P
Selenium	ug/L	75 - 125	487		5.00	U	500	97		P
Sodium	ug/L	75 - 125	72900		22000		50000	102		P

Metals
- 5b -
POST DIGEST SPIKE SUMMARY

Client: JACOBS Engineering Group, Inc. **SDG No.:** Q1731

Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731

Matrix: Water **Level:** LOW **Client ID:** MW-18B-56-040225A

Sample ID: Q1711-01 **Spiked ID:** Q1711-01A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/L	75 - 125	1.10		0.85	J	500	0		P
Potassium	ug/L	75 - 125	41500		23000		25000	74		P

Metals
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POST DIGEST SPIKE SUMMARY

Client: JACOBS Engineering Group, Inc. **SDG No.:** Q1731
Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731
Matrix: Water **Level:** LOW **Client ID:** MW-18B-56-040225A
Sample ID: Q1711-14 **Spiked ID:** Q1711-14A

Analyte	Units	Acceptance Limit %R	Spiked Result	C	Sample Result	C	Spike Added	% Recovery	Qual	M
Arsenic	ug/L	75 - 125	1.01		0.93	J	500	0		P

Metals

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DUPLICATE SAMPLE SUMMARY

Client: JACOBS Engineering Group, Inc. **Level:** LOW **SDG No.:** Q1731
Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731
Matrix: Water **Sample ID:** Q1711-01 **Client ID:** MW-18B-56-040225DUP
Percent Solids for Sample: NA **Duplicate ID** Q1711-01DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	1470		1460		1		P
Antimony	ug/L	20	1.67	J	1.67	J	0		P
Arsenic	ug/L	20	0.85	J	0.93	J	9		P
Barium	ug/L	20	119		120		1		P
Beryllium	ug/L	20	1.00	U	1.00	U			P
Cadmium	ug/L	20	1.00	U	1.00	U			P
Chromium	ug/L	20	0.58	J	0.40	J	37		P
Copper	ug/L	20	2.00	U	2.00	U			P
Iron	ug/L	20	560		550		2		P
Lead	ug/L	20	1.00	U	1.00	U			P
Magnesium	ug/L	20	315	J	317	J	1		P
Manganese	ug/L	20	4.19		5.31		24		P
Potassium	ug/L	20	23000		23000		0		P
Selenium	ug/L	20	5.00	U	5.00	U			P
Sodium	ug/L	20	20000		19800		1		P

“A control limit of $\pm 20\%$ RPD for each matrix applies for sample values greater than 10 times Detection Limit”

Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: JACOBS Engineering Group, Inc. **Level:** LOW **SDG No.:** Q1731
Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731
Matrix: Water **Sample ID:** Q1711-02 **Client ID:** MW-18B-56-040225MSD
Percent Solids for Sample: NA **Duplicate ID** Q1711-03 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	9970		10200		2		P
Antimony	ug/L	20	474		489		3		P
Arsenic	ug/L	20	0.93	J	1.01		8		P
Barium	ug/L	20	2240		2280		2		P
Beryllium	ug/L	20	491		495		1		P
Cadmium	ug/L	20	461		472		2		P
Chromium	ug/L	20	456		465		2		P
Copper	ug/L	20	4200		4290		2		P
Iron	ug/L	20	23000		23400		2		P
Lead	ug/L	20	2340		2400		3		P
Magnesium	ug/L	20	46600		46800		0		P
Manganese	ug/L	20	4190		4270		2		P
Potassium	ug/L	20	40800		42000		3		P
Selenium	ug/L	20	481		490		2		P
Sodium	ug/L	20	64500		64300		0		P

“A control limit of $\pm 20\%$ RPD for each matrix applies for sample values greater than 10 times Detection Limit”

Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: JACOBS Engineering Group, Inc. **Level:** LOW **SDG No.:** Q1731
Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731
Matrix: Water **Sample ID:** Q1711-14 **Client ID:** MW-18B-56-040225DUP
Percent Solids for Sample: NA **Duplicate ID** Q1711-14DUP **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	1520		1520		0		P
Antimony	ug/L	20	1.75	J	1.77	J	1		P
Arsenic	ug/L	20	0.93	J	0.88	J	6		P
Barium	ug/L	20	124		130		5		P
Beryllium	ug/L	20	1.00	U	1.00	U			P
Cadmium	ug/L	20	1.00	U	1.00	U			P
Chromium	ug/L	20	2.00	U	2.00	U			P
Copper	ug/L	20	2.00	U	2.00	U			P
Iron	ug/L	20	40.3	J	40.7	J	1		P
Lead	ug/L	20	1.00	U	1.00	U			P
Magnesium	ug/L	20	399	J	399	J	0		P
Manganese	ug/L	20	9.43		6.80		32	*	P
Potassium	ug/L	20	25100		24700		2		P
Selenium	ug/L	20	5.00	U	5.00	U			P
Sodium	ug/L	20	22000		22100		0		P

“A control limit of $\pm 20\%$ RPD for each matrix applies for sample values greater than 10 times Detection Limit”

Metals

- 6 -

DUPLICATE SAMPLE SUMMARY

Client: JACOBS Engineering Group, Inc. **Level:** LOW **SDG No.:** Q1731
Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731
Matrix: Water **Sample ID:** Q1711-15 **Client ID:** MW-18B-56-040225MSD
Percent Solids for Sample: NA **Duplicate ID** Q1711-16 **Percent Solids for Spike Sample:** NA

Analyte	Units	Acceptance Limit	Sample Result	C	Duplicate Result	C	RPD	Qual	M
Aluminum	ug/L	20	10700		10700		0		P
Antimony	ug/L	20	514		511		1		P
Arsenic	ug/L	20	0.98	J	0.95	J	3		P
Barium	ug/L	20	2370		2340		1		P
Beryllium	ug/L	20	469		478		2		P
Cadmium	ug/L	20	507		502		1		P
Chromium	ug/L	20	470		474		1		P
Copper	ug/L	20	4210		4210		0		P
Iron	ug/L	20	21600		21900		1		P
Lead	ug/L	20	2400		2440		2		P
Magnesium	ug/L	20	52500		52900		1		P
Manganese	ug/L	20	4360		4380		0		P
Potassium	ug/L	20	45200		45600		1		P
Selenium	ug/L	20	479		487		2		P
Sodium	ug/L	20	71500		72900		2		P

“A control limit of $\pm 20\%$ RPD for each matrix applies for sample values greater than 10 times Detection Limit”

Metals

- 7 -

LABORATORY CONTROL SAMPLE SUMMARY

Client: JACOBS Engineering Group, Inc. **SDG No.:** Q1731
Contract: JACO05 **Lab Code:** CHEM **Case No.:** Q1731 **SAS No.:** Q1731

Analyte	Units	True Value	Result	C	% Recovery	Acceptance Limits	M
PB167465BS							
Aluminum	ug/L	10000	10100		101	80 - 120	P
Antimony	ug/L	500	507		101	80 - 120	P
Arsenic	ug/L	500	511		102	80 - 120	P
Barium	ug/L	2500	2570		103	80 - 120	P
Beryllium	ug/L	500	511		102	80 - 120	P
Cadmium	ug/L	500	509		102	80 - 120	P
Chromium	ug/L	500	511		102	80 - 120	P
Copper	ug/L	5000	5130		103	80 - 120	P
Iron	ug/L	25000	27400		110	80 - 120	P
Lead	ug/L	2500	2520		101	80 - 120	P
Magnesium	ug/L	50000	51000		102	80 - 120	P
Manganese	ug/L	5000	5010		100	80 - 120	P
Potassium	ug/L	25000	25400		102	80 - 120	P
Selenium	ug/L	500	508		102	80 - 120	P
Sodium	ug/L	50000	52300		105	80 - 120	P

FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: JACOBS Engineering Group, Inc.

Contract: JACO05

Lab Code: CHEM Case no.: Q1731

Sas No.: Q1731 SDG No.: Q1731

Instrument ID: P7

Start Date : 04/04/2025

Run Number: LB135315

End Date : 04/04/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Non-Collision Cell									
			Element 6Li	Q	Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q
S0	S0	1409	100		100		100		100		100	
S2	S2	1415	102		100		100		98		100	
S3	S3	1419	103		99		98		99		99	
S4	S4	1422	105		101		100		99		100	
S5	S5	1425	109		98		99		98		102	
S6	S6	1428	110		100		99		97		102	
S7	S7	1431	110		102		102		98		104	
S8	S8	1433	112		114		114		103		116	
ICV01	ICV01	1458	96		105		107		107		106	
LLICV	LLICV	1517	97		105		107		107		108	
ICB01	ICB01	1520	96		106		107		107		108	
ICSA01	ICSA01	1524	99		104		107		103		110	
ICSAB01	ICSAB01	1527	99		107		110		106		114	
CCV01	CCV01	1530	101		107		111		103		113	
CCB01	CCB01	1533	101		104		106		107		111	
CRI	CRI	1537	100		106		109		107		111	
PB167465BL	PB167465BL	1540	100		106		109		109		110	
PB167465BS	PB167465BS	1543	101		107		110		108		112	
ZZZZZZ	ZZZZZZ	1546										
Q1711-01DUP	MW-18B-56-0	1549	105		119		123		121		125	
Q1711-01L	MW-18B-56-0	1553	95		110		115		113		115	
Q1711-02	MW-18B-56-0	1556	107		120		125		120		126	
Q1711-03	MW-18B-56-0	1559	107		120		124		120		125	
Q1711-01A	MW-18B-56-0	1602	104		118		123		121		128	
CCV02	CCV02	1610	97		112		115		108		117	
CCB02	CCB02	1615	94		107		111		110		113	

Internal Standard %RI Limit: 70 - 130

FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: JACOBS Engineering Group, Inc.

Contract: JACO05

Lab Code: CHEM Case no.: Q1731

Sas No.: Q1731 SDG No.: Q1731

Instrument ID: P7

Start Date : 04/04/2025

Run Number: LB135315

End Date : 04/04/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Collision Cell									
			Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q	Element 165Ho	Q
S0	S0	1409	100		100		100		100		100	
S2	S2	1415	100		101		101		102		101	
S3	S3	1419	99		100		100		102		103	
S4	S4	1422	98		101		101		104		104	
S5	S5	1425	95		100		100		106		106	
S6	S6	1428	96		102		100		108		107	
S7	S7	1431	99		103		101		110		110	
S8	S8	1433	108		109		99		110		108	
ICV01	ICV01	1458	109		110		110		111		109	
LLICV	LLICV	1517	108		109		109		109		106	
ICB01	ICB01	1520	106		109		108		111		109	
ICSA01	ICSA01	1524	103		107		105		112		110	
ICSAB01	ICSAB01	1527	105		111		107		114		113	
CCV01	CCV01	1530	108		110		104		112		111	
CCB01	CCB01	1533	104		111		110		112		110	
CRI	CRI	1537	106		110		109		112		109	
PB167465BL	PB167465BL	1540	106		109		110		112		109	
PB167465BS	PB167465BS	1543	105		108		108		112		110	
ZZZZZZ	ZZZZZZ	1546										
Q1711-01DUP	MW-18B-56-0	1549	122		124		122		122		120	
Q1711-01L	MW-18B-56-0	1553	112		116		114		113		112	
Q1711-02	MW-18B-56-0	1556	120		123		118		123		120	
Q1711-03	MW-18B-56-0	1559	120		123		120		121		120	
Q1711-01A	MW-18B-56-0	1602	120		122		120		122		122	
CCV02	CCV02	1610	116		117		111		117		115	
CCB02	CCB02	1615	109		112		111		111		109	

Internal Standard %RI Limit: 70 - 130

FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: JACOBS Engineering Group, Inc.

Contract: JACO05

Lab Code: CHEM Case no.: Q1731

Sas No.: Q1731 SDG No.: Q1731

Instrument ID: P8

Start Date : 04/07/2025

Run Number: LB135332

End Date : 04/07/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Non-Collision Cell									
			Element 6Li	Q	Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q
S0	S0	1129	100		100		100		100		100	
S2	S2	1136	98		98		97		98		98	
S3	S3	1139	97		98		98		96		99	
S4	S4	1142	96		95		96		95		97	
S5	S5	1145	95		96		96		93		99	
S6	S6	1148	92		92		94		88		94	
S7	S7	1151	93		96		94		88		95	
S8	S8	1154	83		86		85		74		86	
ICV01	ICV01	1240	103		102		102		100		100	
LLICV	LLICV	1244	104		103		101		99		101	
ICB01	ICB01	1248	103		102		99		98		99	
ICSA01	ICSA01	1257	101		103		98		88		95	
ICSAB01	ICSAB01	1304	103		105		99		89		96	
CCV01	CCV01	1307	96		101		94		83		90	
CCB01	CCB01	1317	115		115		106		105		102	
CRI	CRI	1320	115		116		107		105		103	
ZZZZZZ	ZZZZZZ	1324										
ZZZZZZ	ZZZZZZ	1327										
ZZZZZZ	ZZZZZZ	1330										
Q1711-14DUP	MW-18B-56-0	1333	116		114		107		100		101	
Q1711-14L	MW-18B-56-0	1337	113		110		104		100		100	
Q1711-15	MW-18B-56-0	1340	116		112		104		96		98	
Q1711-16	MW-18B-56-0	1343	116		115		104		95		99	
CCV02	CCV02	1358	99		99		94		82		89	
CCB02	CCB02	1405	110		108		102		100		98	
Q1711-14A	MW-18B-56-0	1408	110		110		102		93		95	
Q1731-05	EB01-040325	1411	113		109		104		101		98	
Q1731-06	EB01-040325	1414	112		109		102		101		97	
ZZZZZZ	ZZZZZZ	1418										
ZZZZZZ	ZZZZZZ	1421										
ZZZZZZ	ZZZZZZ	1433										
ZZZZZZ	ZZZZZZ	1436										
ZZZZZZ	ZZZZZZ	1439										
ZZZZZZ	ZZZZZZ	1443										
ZZZZZZ	ZZZZZZ	1452										
CCV03	CCV03	1500	104		102		96		84		93	

Internal Standard %RI Limit: 70 - 130

FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: JACOBS Engineering Group, Inc.

Contract: JACO05

Lab Code: CHEM Case no.: Q1731

Sas No.: Q1731 SDG No.: Q1731

Instrument ID: P8

Start Date : 04/07/2025

Run Number: LB135332

End Date : 04/07/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Non-Collision Cell									
			Element 6Li	Q	Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q
CCB03	CCB03	1513	120		116		109		106		104	

FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: JACOBS Engineering Group, Inc.

Contract: JACO05

Lab Code: CHEM Case no.: Q1731

Sas No.: Q1731 SDG No.: Q1731

Instrument ID: P8

Start Date : 04/07/2025

Run Number: LB135332

End Date : 04/07/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Collision Cell									
			Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q	Element 165Ho	Q
S0	S0	1129	100		100		100		100		100	
S2	S2	1136	99		100		101		100		99	
S3	S3	1139	96		97		97		98		98	
S4	S4	1142	95		94		96		98		98	
S5	S5	1145	96		95		94		98		97	
S6	S6	1148	95		95		91		97		97	
S7	S7	1151	99		93		89		96		96	
S8	S8	1154	92		88		78		89		89	
ICV01	ICV01	1240	105		102		99		98		99	
LLICV	LLICV	1244	103		101		100		99		98	
ICB01	ICB01	1248	102		100		100		98		98	
ICSA01	ICSA01	1257	104		100		90		94		95	
ICSAB01	ICSAB01	1304	110		104		91		95		95	
CCV01	CCV01	1307	108		101		86		92		93	
CCB01	CCB01	1317	117		111		108		103		102	
CRI	CRI	1320	117		111		107		102		102	
ZZZZZZ	ZZZZZZ	1324										
ZZZZZZ	ZZZZZZ	1327										
ZZZZZZ	ZZZZZZ	1330										
Q1711-14DUP	MW-18B-56-0	1333	117		112		104		103		103	
Q1711-14L	MW-18B-56-0	1337	113		108		104		101		101	
Q1711-15	MW-18B-56-0	1340	121		111		100		99		99	
Q1711-16	MW-18B-56-0	1343	121		110		100		99		100	
CCV02	CCV02	1358	112		104		87		93		94	
CCB02	CCB02	1405	109		106		103		97		97	
Q1711-14A	MW-18B-56-0	1408	117		106		94		96		96	
Q1731-05	EB01-040325	1411	113		107		103		99		98	
Q1731-06	EB01-040325	1414	110		106		103		99		97	
ZZZZZZ	ZZZZZZ	1418										
ZZZZZZ	ZZZZZZ	1421										
ZZZZZZ	ZZZZZZ	1433										
ZZZZZZ	ZZZZZZ	1436										
ZZZZZZ	ZZZZZZ	1439										
ZZZZZZ	ZZZZZZ	1443										
ZZZZZZ	ZZZZZZ	1452										
CCV03	CCV03	1500	108		103		89		95		95	

Internal Standard %RI Limit: 70 - 130

FORM 8A

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Client: JACOBS Engineering Group, Inc.

Contract: JACO05

Lab Code: CHEM Case no.: Q1731

Sas No.: Q1731 SDG No.: Q1731

Instrument ID: P8

Start Date : 04/07/2025

Run Number: LB135332

End Date : 04/07/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Collision Cell									
			Element 45Sc	Q	Element 89Y	Q	Element 103Rh	Q	Element 159Tb	Q	Element 165Ho	Q
CCB03	CCB03	1513	116		113		109		103		103	

Internal Standard %RI Limit: 70 - 130

FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: JACOBS Engineering Group, Inc.

Contract: JACO05

Lab Code: CHEM Case no.: Q1731

Sas No.: Q1731 SDG No.: Q1731

Instrument ID: P7

Start Date : 04/04/2025

Run Number: LB135315

End Date : 04/04/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Non-Collision Cell									
			Element 165Ho	Q	Element 209Bi	Q	Element	Q	Element	Q	Element	Q
S0	S0	1409	100		100							
S2	S2	1415	99		99							
S3	S3	1419	99		101							
S4	S4	1422	100		101							
S5	S5	1425	99		103							
S6	S6	1428	101		103							
S7	S7	1431	104		102							
S8	S8	1433	114		105							
ICV01	ICV01	1458	106		107							
LLICV	LLICV	1517	105		107							
ICB01	ICB01	1520	107		107							
ICSA01	ICSA01	1524	109		105							
ICSAB01	ICSAB01	1527	111		109							
CCV01	CCV01	1530	112		106							
CCB01	CCB01	1533	109		110							
CRI	CRI	1537	109		111							
PB167465BL	PB167465BL	1540	108		110							
PB167465BS	PB167465BS	1543	111		110							
ZZZZZZ	ZZZZZZ	1546										
Q1711-01DUP	MW-18B-56-04	1549	124		121							
Q1711-01L	MW-18B-56-04	1553	112		112							
Q1711-02	MW-18B-56-04	1556	124		122							
Q1711-03	MW-18B-56-04	1559	123		122							
Q1711-01A	MW-18B-56-04	1602	125		123							
CCV02	CCV02	1610	116		111							
CCB02	CCB02	1615	110		111							

Internal Standard %RI Limit: 70 -130

FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: JACOBS Engineering Group, Inc.

Contract: JACO05

Lab Code: CHEM Case no.: Q1731

Sas No.: Q1731 SDG No.: Q1731

Instrument ID: P7

Start Date : 04/04/2025

Run Number: LB135315

End Date : 04/04/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Collision Cell									
			Element 209Bi	Q	Element	Q	Element	Q	Element	Q	Element	Q
S0	S0	1409	100									
S2	S2	1415	100									
S3	S3	1419	103									
S4	S4	1422	103									
S5	S5	1425	105									
S6	S6	1428	104									
S7	S7	1431	104									
S8	S8	1433	98									
ICV01	ICV01	1458	107									
LLICV	LLICV	1517	104									
ICB01	ICB01	1520	108									
ICSA01	ICSA01	1524	105									
ICSAB01	ICSAB01	1527	109									
CCV01	CCV01	1530	102									
CCB01	CCB01	1533	109									
CRI	CRI	1537	109									
PB167465BL	PB167465BL	1540	109									
PB167465BS	PB167465BS	1543	107									
ZZZZZZ	ZZZZZZ	1546										
Q1711-01DUP	MW-18B-56-04	1549	117									
Q1711-01L	MW-18B-56-04	1553	110									
Q1711-02	MW-18B-56-04	1556	116									
Q1711-03	MW-18B-56-04	1559	116									
Q1711-01A	MW-18B-56-04	1602	117									
CCV02	CCV02	1610	107									
CCB02	CCB02	1615	109									

Internal Standard %RI Limit: 70 -130

FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: JACOBS Engineering Group, Inc.

Contract: JAC005

Lab Code: CHEM Case no.: Q1731

Sas No.: Q1731 SDG No.: Q1731

Instrument ID: P8

Start Date : 04/07/2025

Run Number: LB135332

End Date : 04/07/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Non-Collision Cell									
			Element 165Ho	Q	Element 209Bi	Q	Element	Q	Element	Q	Element	Q
S0	S0	1129	100		100							
S2	S2	1136	99		99							
S3	S3	1139	98		97							
S4	S4	1142	99		96							
S5	S5	1145	99		95							
S6	S6	1148	95		90							
S7	S7	1151	96		88							
S8	S8	1154	86		74							
ICV01	ICV01	1240	101		100							
LLICV	LLICV	1244	99		99							
ICB01	ICB01	1248	98		99							
ICSA01	ICSA01	1257	95		86							
ICSAB01	ICSAB01	1304	96		88							
CCV01	CCV01	1307	91		80							
CCB01	CCB01	1317	101		101							
CRI	CRI	1320	102		102							
ZZZZZZ	ZZZZZZ	1324										
ZZZZZZ	ZZZZZZ	1327										
ZZZZZZ	ZZZZZZ	1330										
Q1711-14DUP	MW-18B-56-04	1333	102		96							
Q1711-14L	MW-18B-56-04	1337	100		97							
Q1711-15	MW-18B-56-04	1340	99		93							
Q1711-16	MW-18B-56-04	1343	100		91							
CCV02	CCV02	1358	88		80							
CCB02	CCB02	1405	97		97							
Q1711-14A	MW-18B-56-04	1408	95		89							
Q1731-05	EB01-040325	1411	98		96							
Q1731-06	EB01-040325	1414	98		98							
ZZZZZZ	ZZZZZZ	1418										
ZZZZZZ	ZZZZZZ	1421										
ZZZZZZ	ZZZZZZ	1433										
ZZZZZZ	ZZZZZZ	1436										
ZZZZZZ	ZZZZZZ	1439										
ZZZZZZ	ZZZZZZ	1443										

Internal Standard %RI Limit: 70 -130

FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: JACOBS Engineering Group, Inc.

Contract: JAC005

Lab Code: CHEM Case no.: Q1731

Sas No.: Q1731 SDG No.: Q1731

Instrument ID: P8

Start Date : 04/07/2025

Run Number: LB135332

End Date : 04/07/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Non-Collision Cell									
			Element 165Ho	Q	Element 209Bi	Q	Element	Q	Element	Q	Element	Q
ZZZZZZ	ZZZZZZ	1452										
CCV03	CCV03	1500	93		83							
CCB03	CCB03	1513	101		102							

FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: JACOBS Engineering Group, Inc.

Contract: JAC005

Lab Code: CHEM Case no.: Q1731

Sas No.: Q1731 SDG No.: Q1731

Instrument ID: P8

Start Date : 04/07/2025

Run Number: LB135332

End Date : 04/07/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Collision Cell									
			Element 209Bi	Q	Element	Q	Element	Q	Element	Q	Element	Q
S0	S0	1129	100									
S2	S2	1136	101									
S3	S3	1139	99									
S4	S4	1142	97									
S5	S5	1145	95									
S6	S6	1148	92									
S7	S7	1151	89									
S8	S8	1154	76									
ICV01	ICV01	1240	98									
LLICV	LLICV	1244	98									
ICB01	ICB01	1248	97									
ICSA01	ICSA01	1257	86									
ICSAB01	ICSAB01	1304	86									
CCV01	CCV01	1307	81									
CCB01	CCB01	1317	101									
CRI	CRI	1320	101									
ZZZZZZ	ZZZZZZ	1324										
ZZZZZZ	ZZZZZZ	1327										
ZZZZZZ	ZZZZZZ	1330										
Q1711-14DUP	MW-18B-56-04	1333	99									
Q1711-14L	MW-18B-56-04	1337	98									
Q1711-15	MW-18B-56-04	1340	92									
Q1711-16	MW-18B-56-04	1343	93									
CCV02	CCV02	1358	83									
CCB02	CCB02	1405	96									
Q1711-14A	MW-18B-56-04	1408	89									
Q1731-05	EB01-040325	1411	98									
Q1731-06	EB01-040325	1414	97									
ZZZZZZ	ZZZZZZ	1418										
ZZZZZZ	ZZZZZZ	1421										
ZZZZZZ	ZZZZZZ	1433										
ZZZZZZ	ZZZZZZ	1436										
ZZZZZZ	ZZZZZZ	1439										
ZZZZZZ	ZZZZZZ	1443										

Internal Standard %RI Limit: 70 -130

FORM 8B

ICP-MS INTERNAL STANDARD RELATIVE INTENSITY SUMMARY

Lab Name: JACOBS Engineering Group, Inc.

Contract: JAC005

Lab Code: CHEM Case no.: Q1731

Sas No.: Q1731 SDG No.: Q1731

Instrument ID: P8

Start Date : 04/07/2025

Run Number: LB135332

End Date : 04/07/2025

Lab SampleID	Client SampleID	Time	Internal Standard %RI For: Collision Cell									
			Element 209Bi	Q	Element	Q	Element	Q	Element	Q	Element	Q
ZZZZZZ	ZZZZZZ	1452										
CCV03	CCV03	1500	84									
CCB03	CCB03	1513	104									

Metals
-9 -
ICP SERIAL DILUTIONS

SAMPLE NO.

MW-18B-56-040225L

Lab Name: Chemtech Consulting Group

Contract: JACO05

Lab Code: CHEM Lb No.: lb135315 Lab Sample ID : Q1711-01L SDG No.: Q1731

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

Concentration Units: ug/L

Analyte	Initial Sample Result (I)		Serial Dilution Result (S)		% Differ-ence	Q	M
	C		C				
Aluminum	1470		1510		3		P
Antimony	1.67	J	1.75	J	5		P
Arsenic	0.85	J	0.90	J	6		P
Barium	119		122		2		P
Beryllium	1.00	U	5.00	U			P
Cadmium	1.00	U	5.00	U			P
Chromium	0.58	J	10.0	U	100.0		P
Copper	2.00	U	10.0	U			P
Iron	560		580		4		P
Lead	1.00	U	5.00	U			P
Magnesium	315	J	323	J	2		P
Manganese	4.19		4.75	J	13		P
Potassium	23000		23300		1		P
Selenium	5.00	U	25.0	U			P
Sodium	20000		20100		1		P

Metals
-9 -
ICP SERIAL DILUTIONS

SAMPLE NO.

MW-18B-56-040225L

Lab Name: Chemtech Consulting Group

Contract: JACO05

Lab Code: CHEM Lb No.: lb135332 Lab Sample ID : Q1711-14L SDG No.: Q1731

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

Concentration Units: ug/L

Analyte	Initial Sample Result (I)		Serial Dilution Result (S)		% Differ-ence	Q	M
		C		C			
Aluminum	1520		1560		2		P
Antimony	1.75	J	1.75	J	0		P
Arsenic	0.93	J	1.00	J	8		P
Barium	124		121		3		P
Beryllium	1.00	U	5.00	U			P
Cadmium	1.00	U	5.00	U			P
Chromium	2.00	U	10.0	U			P
Copper	2.00	U	10.0	U			P
Iron	40.3	J	250	U	100.0		P
Lead	1.00	U	5.00	U			P
Magnesium	399	J	408	J	2		P
Manganese	9.43		12.2		29		P
Potassium	25100		25800		3		P
Selenium	5.00	U	25.0	U			P
Sodium	22000		22500		2		P



METAL PREPARATION & INSTRUMENT DATA

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METAL PREPARATION & ANALYICAL SUMMARY

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Metals
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SAMPLE PREPARATION SUMMARY

Client:	<u>JACOBS Engineering Group, Inc.</u>	SDG No.:	<u>Q1731</u>
Contract:	<u>JACO05</u>	Lab Code:	<u>CHEM</u>
		Method:	<u></u>
		Case No.:	<u>Q1731</u>
		SAS No.:	<u>Q1731</u>

Sample ID	Client ID	Sample Type	Matrix	Prep Date	Initial Sample Size(mL)	Final Sample Volume (mL)	Percent Solids
Batch Number: PB167465							
PB167465BL	PB167465BL	MB	WATER	04/04/2025	50.0	50.0	
PB167465BS	PB167465BS	LCS	WATER	04/04/2025	50.0	50.0	
Q1711-01DUP	MW-18B-56-040225DUP	DUP	WATER	04/04/2025	50.0	50.0	
Q1711-02	MW-18B-56-040225MS	MS	WATER	04/04/2025	50.0	50.0	
Q1711-03	MW-18B-56-040225MSD	MSD	WATER	04/04/2025	50.0	50.0	
Q1711-14DUP	MW-18B-56-040225DUP	DUP	WATER	04/04/2025	50.0	50.0	
Q1711-15	MW-18B-56-040225MS	MS	WATER	04/04/2025	50.0	50.0	
Q1711-16	MW-18B-56-040225MSD	MSD	WATER	04/04/2025	50.0	50.0	
Q1731-05	EB01-040325	SAM	WATER	04/04/2025	50.0	50.0	
Q1731-06	EB01-040325	SAM	WATER	04/04/2025	50.0	50.0	

metals
- 14 -
ANALYSIS RUN LOG

Client: JACOBS Engineering Group, Inc.

Contract: JACO05

Lab code: CHEM **Case no.:** Q1731

Sas no.: Q1731

Sdg no.: Q1731

Instrument id number: **Method:**

Run number: LB135315

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

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1409	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S2	S2	1	1415	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S3	S3	1	1419	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S4	S4	1	1422	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S5	S5	1	1425	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S6	S6	1	1428	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S7	S7	1	1431	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S8	S8	1	1433	Fe,Al,K,Mg,Na
ICV01	ICV01	1	1458	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
LLICV	LLICV	1	1517	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
ICB01	ICB01	1	1520	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
ICSA01	ICSA01	1	1524	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
ICSAB01	ICSAB01	1	1527	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
CCV01	CCV01	1	1530	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
CCB01	CCB01	1	1533	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
CRI	CRI	1	1537	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
PB167465BL	PB167465BL	1	1540	Al,As,Ba,Be,Cd,Cr,Cu,Fe,K,Mg,Mn,Na,Pb,Sb,Se
PB167465BS	PB167465BS	1	1543	Al,As,Ba,Be,Cd,Cr,Cu,Fe,K,Mg,Mn,Na,Pb,Sb,Se
Q1711-01DUP	MW-18B-56-040225DUP	1	1549	Al,As,Ba,Be,Cd,Cr,Cu,Fe,K,Mg,Mn,Na,Pb,Sb,Se
Q1711-01L	MW-18B-56-040225L	5	1553	Al,As,Ba,Be,Cd,Cr,Cu,Fe,K,Mg,Mn,Na,Pb,Sb,Se
Q1711-02	MW-18B-56-040225MS	1	1556	Al,As,Ba,Be,Cd,Cr,Cu,Fe,K,Mg,Mn,Na,Pb,Sb,Se
Q1711-03	MW-18B-56-040225MSD	1	1559	Al,As,Ba,Be,Cd,Cr,Cu,Fe,K,Mg,Mn,Na,Pb,Sb,Se
Q1711-01A	MW-18B-56-040225A	1	1602	As,K
CCV02	CCV02	1	1610	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
CCB02	CCB02	1	1615	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
CCV03	CCV03	1	1624	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
CCB03	CCB03	1	1628	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se

metals
- 14 -
ANALYSIS RUN LOG

Client: JACOBS Engineering Group, Inc.

Contract: JACO05

Lab code: CHEM **Case no.:** Q1731 **Sas no.:** Q1731

Sdg no.: Q1731

Instrument id number: **Method:**

Run number: LB135332

Start date: 04/07/2025 **End date:** 04/07/2025

Lab sample id.	Client Sample Id	d/f	Time	Parameter list
S0	S0	1	1129	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S2	S2	1	1136	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S3	S3	1	1139	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S4	S4	1	1142	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S5	S5	1	1145	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S6	S6	1	1148	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S7	S7	1	1151	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
S8	S8	1	1154	Fe,Al,K,Mg,Na
ICV01	ICV01	1	1240	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
LLICV	LLICV	1	1244	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
ICB01	ICB01	1	1248	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
ICSA01	ICSA01	1	1257	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
ICSAB01	ICSAB01	1	1304	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
CCV01	CCV01	1	1307	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
CCB01	CCB01	1	1317	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
CRI	CRI	1	1320	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
Q1711-14DUP	MW-18B-56-040225DUP	1	1333	Al,As,Ba,Be,Cd,Cr,Cu,Fe,K,Mg,Mn,Na,Pb,Sb,Se
Q1711-14L	MW-18B-56-040225L	5	1337	Al,As,Ba,Be,Cd,Cr,Cu,Fe,K,Mg,Mn,Na,Pb,Sb,Se
Q1711-15	MW-18B-56-040225MS	1	1340	Al,As,Ba,Be,Cd,Cr,Cu,Fe,K,Mg,Mn,Na,Pb,Sb,Se
Q1711-16	MW-18B-56-040225MSD	1	1343	Al,As,Ba,Be,Cd,Cr,Cu,Fe,K,Mg,Mn,Na,Pb,Sb,Se
CCV02	CCV02	1	1358	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
CCB02	CCB02	1	1405	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
Q1711-14A	MW-18B-56-040225A	1	1408	As
Q1731-05	EB01-040325	1	1411	Al,As,Ba,Be,Cd,Cr,Cu,Fe,K,Mg,Mn,Na,Pb,Sb,Se
Q1731-06	EB01-040325	1	1414	Fe
CCV03	CCV03	1	1500	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se
CCB03	CCB03	1	1513	Fe,Al,As,Ba,Be,Cd,Cr,Cu,K,Mg,Mn,Na,Pb,Sb,Se



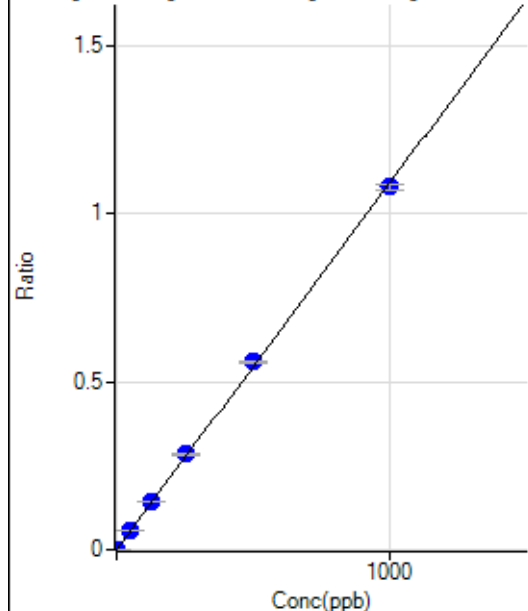
METAL RAW DATA

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Batch Folder: D:\Agilent\ICPMH\1\DATA\P7040425MS.b\
Analysis File: P7040425MS.batch.bin
DA Date-Time: 2025-04-04 16:38:09
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	005CALB.d	S00	2025-04-04 14:09:04
2	007CAL.S.d	S02	2025-04-04 14:15:42
3	008CAL.S.d	S03	2025-04-04 14:19:02
4	009CAL.S.d	S04	2025-04-04 14:22:15
5	010CAL.S.d	S05	2025-04-04 14:25:20
6	011CAL.S.d	S06	2025-04-04 14:28:16
7	012CAL.S.d	S07	2025-04-04 14:31:06
8	013CAL.S.d	S08	2025-04-04 14:33:50

9 Be [No Gas] ISTD:6 Li [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	29.59	0.0000	P	26.9
2	☐	1.000	1.085	785.80	0.0012	P	5.1
3	☐	50.000	53.223	37361.65	0.0581	P	1.3
4	☐	125.000	132.075	94855.18	0.1442	P	0.5
5	☐	250.000	259.919	193496.05	0.2837	P	1.0
6	☐	500.000	512.361	383856.82	0.5593	P	0.6
7	☐	1000.000	990.294	741251.20	1.0809	P	1.8
8	☐			112.38	0.0002	P	18.3

$y = 0.0011 * x + 4.7272E-005$

R = 0.9998

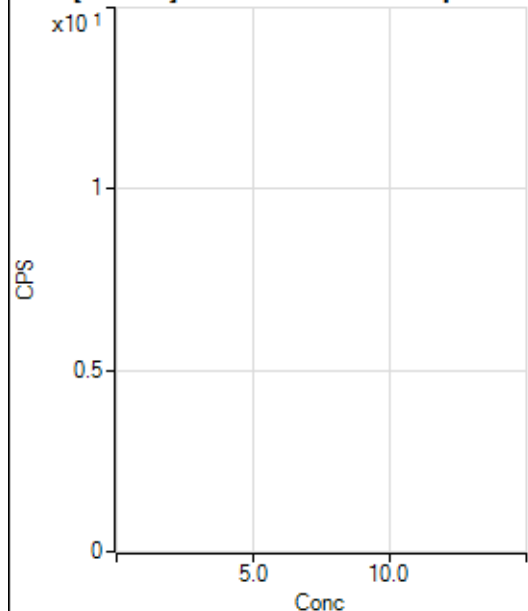
DL = 0.03497

BEC = 0.04331

Weight: <None>

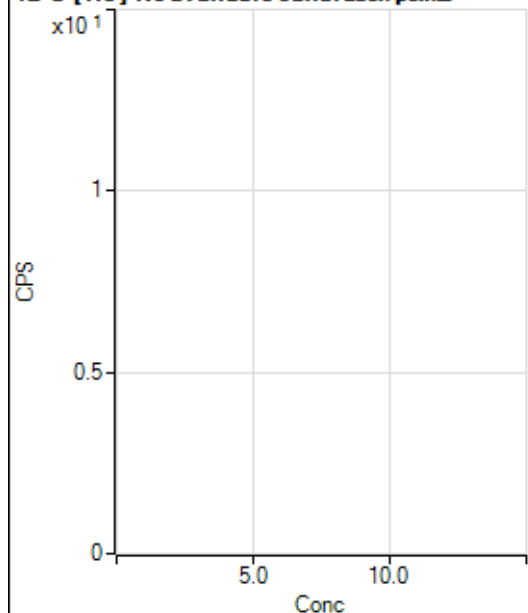
Min Conc: 0

12 C [No Gas] No available calibration points



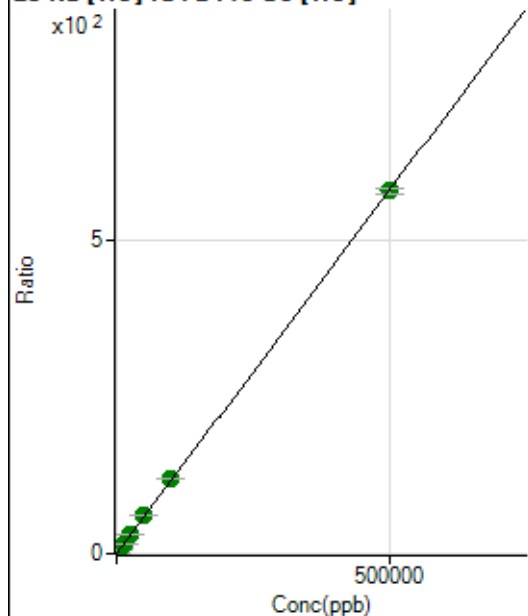
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐						
2	☐						
3	☐						
4	☐						
5	☐						
6	☐						
7	☐						
8	☐						

12 C [He] No available calibration points



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐						
2	☐						
3	☐						
4	☐						
5	☐						
6	☐						
7	☐						
8	☐						

23 Na [He] ISTD:45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	13975.32	0.0531	P	0.5
2	☐	500.000	555.429	184022.23	0.6968	P	1.1
3	☐	5000.000	5353.265	1624227.08	6.2575	A	0.8
4	☐	12500.000	13060.054	3938192.96	15.1895	A	0.5
5	☐	25000.000	26294.381	7669206.69	30.5280	A	0.1
6	☐	50000.000	51947.376	15257810.88	60.2595	A	0.7
7	☐	100000.00	103006.47	31155811.20	119.4364	A	1.3
8	☐	500000.00	499121.65	163960488.6	578.5296	A	1.3

$y = 0.0012 * x + 0.0531$

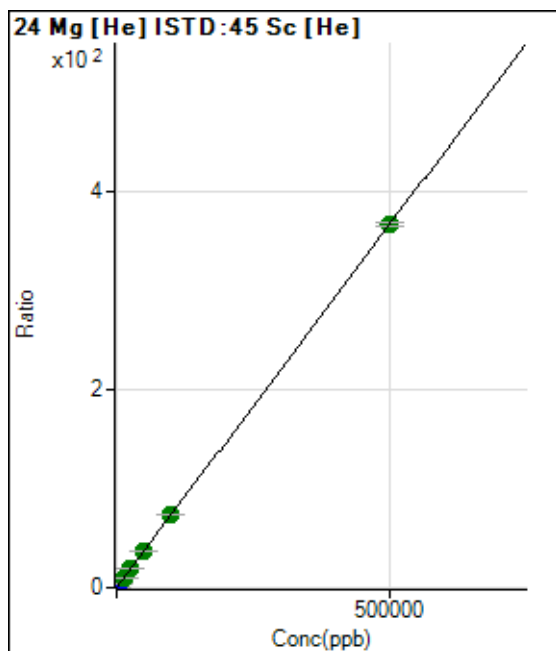
$R = 1.0000$

$DL = 0.7143$

$BEC = 45.79$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	151.11	0.0006	P	6.7
2	☐	500.000	551.294	106945.38	0.4050	P	1.0
3	☐	5000.000	5169.360	984363.68	3.7923	P	0.8
4	☐	12500.000	12933.457	2459756.27	9.4873	A	1.1
5	☐	25000.000	25850.546	4763577.71	18.9621	A	0.4
6	☐	50000.000	50929.794	9459041.04	37.3578	A	0.7
7	☐	100000.00	100797.85	19287065.68	73.9363	A	1.0
8	☐	500000.00	499692.34	103877362.9	366.5274	A	1.0

$$y = 7.3351E-004 * x + 5.7390E-004$$

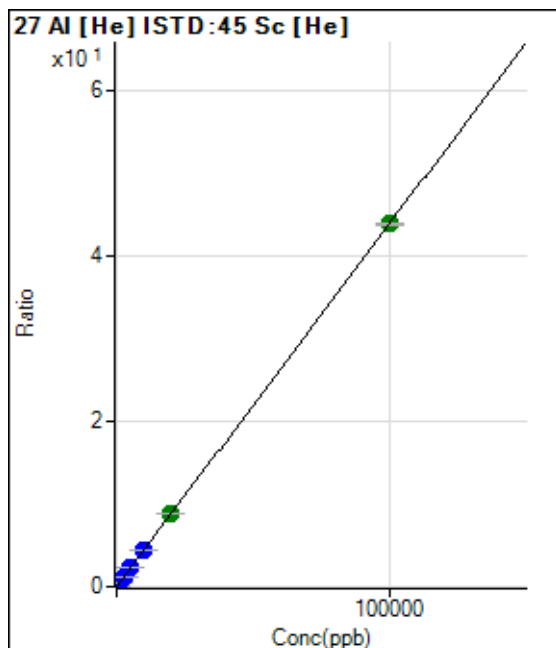
R = 1.0000

DL = 0.1571

BEC = 0.7824

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	373.34	0.0014	P	6.1
2	☐	20.000	21.630	2878.08	0.0109	P	3.8
3	☐	1000.000	1034.422	118055.15	0.4548	P	1.1
4	☐	2500.000	2540.085	289029.80	1.1148	P	0.9
5	☐	5000.000	5103.771	562343.44	2.2385	P	0.8
6	☐	10000.000	9992.678	1109364.36	4.3814	P	1.1
7	☐	20000.000	20140.550	2303271.29	8.8294	A	0.8
8	☐	100000.00	99966.087	12418662.18	43.8186	A	0.7

$$y = 4.3832E-004 * x + 0.0014$$

R = 1.0000

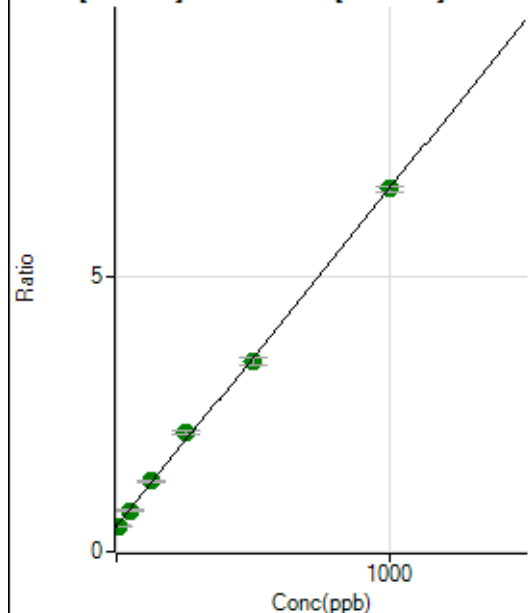
DL = 0.5886

BEC = 3.235

Weight: <None>

Min Conc: 0

28 Si [No Gas] ISTD :45 Sc [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1281360.58	0.4643	A	4.4
2	☐	10.000	0.201	1280496.01	0.4655	A	0.2
3	☐	50.000	46.401	2050301.60	0.7500	A	1.5
4	☐	125.000	132.862	3575966.82	1.2824	A	0.9
5	☐	250.000	278.115	5918683.45	2.1767	A	3.0
6	☐	500.000	489.070	9588080.90	3.4757	A	3.8
7	☐	1000.000	997.732	18555410.70	6.6077	A	1.6
8	☐			989562.37	0.3169	M	23.4

$$y = 0.0062 * x + 0.4643$$

$$R = 0.9993$$

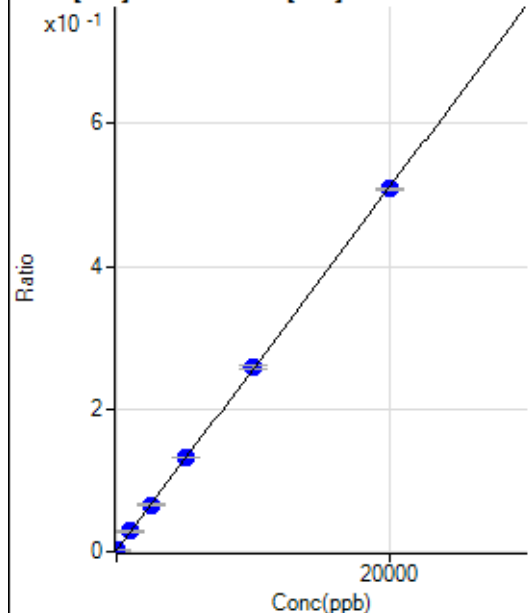
$$DL = 9.88$$

$$BEC = 75.41$$

Weight: <None>

Min Conc: 0

31 P [He] ISTD :45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-22.478	310.01	0.0012	P	6.5
2	☐	0.000	22.478	613.35	0.0023	P	7.1
3	☐	1000.000	1049.125	7386.29	0.0285	P	2.1
4	☐	2500.000	2522.112	17096.31	0.0659	P	1.0
5	☐	5000.000	5107.725	33095.83	0.1317	P	1.5
6	☐	10000.000	10105.288	65560.80	0.2589	P	1.9
7	☐	20000.000	19915.204	132676.10	0.5086	P	0.7
8	☐			370.01	0.0013	P	3.0

$$y = 2.5451E-005 * x + 0.0017$$

$$R = 1.0000$$

$$DL = 14.14$$

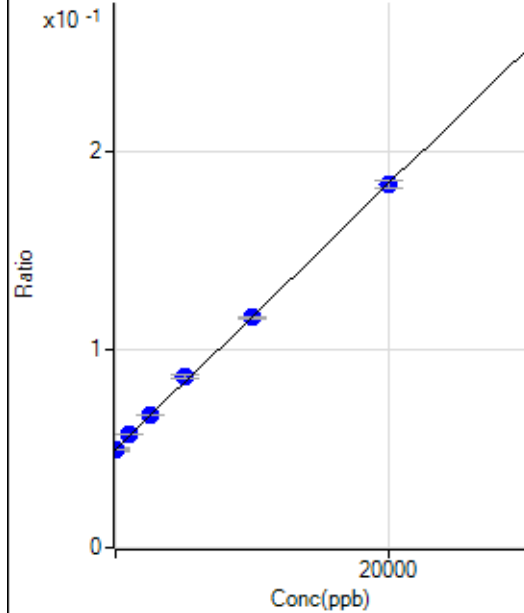
$$BEC = 68.75$$

Weight: <None>

Min Conc: 0

Calibration for 011CAL.S.d

34 S [No Gas] ISTD:45 Sc [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	-43.787	136183.50	0.0493	P	3.5
2	☐	0.000	43.787	137326.84	0.0499	P	0.5
3	☐	1000.000	1138.575	156589.24	0.0573	P	1.1
4	☐	2500.000	2570.465	186557.72	0.0669	P	0.4
5	☐	5000.000	5459.629	234661.83	0.0863	P	2.5
6	☐	10000.000	9920.269	320822.24	0.1163	P	1.4
7	☐	20000.000	19909.221	514883.16	0.1834	P	2.3
8	☐			112867.53	0.0360	P	12.9

$$y = 6.7170E-006 * x + 0.0496$$

$$R = 0.9997$$

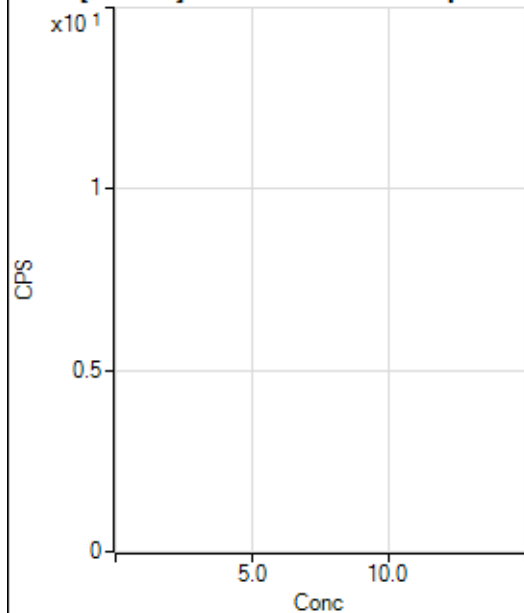
$$DL = 437.1$$

$$BEC = 7389$$

Weight: <None>

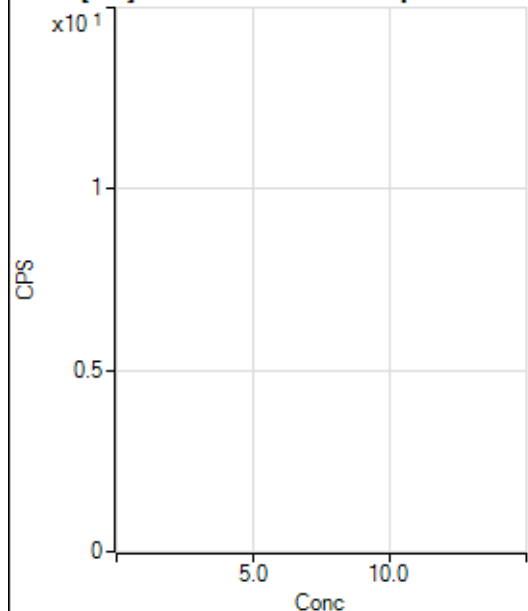
Min Conc: 0

35 Cl [No Gas] No available calibration points



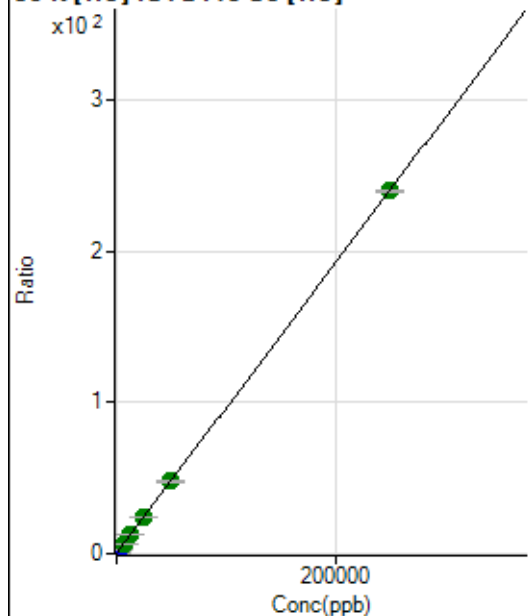
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐						
2	☐						
3	☐						
4	☐						
5	☐						
6	☐						
7	☐						
8	☐						

35 Cl [He] No available calibration points



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐						
2	☐						
3	☐						
4	☐						
5	☐						
6	☐						
7	☐						
8	☐						

39 K [He] ISTD:45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	49826.96	0.1892	P	0.7
2	☐	500.000	568.906	194006.25	0.7346	P	0.2
3	☐	2500.000	2682.115	716507.04	2.7603	P	0.3
4	☐	6250.000	6320.818	1620018.29	6.2484	A	1.2
5	☐	12500.000	12612.894	3084892.24	12.2799	A	1.0
6	☐	25000.000	25143.845	6150722.27	24.2920	A	0.9
7	☐	50000.000	49722.699	12482407.59	47.8533	A	1.8
8	☐	250000.00	250031.70	67981408.98	239.8689	A	0.7

$$y = 9.5860E-004 * x + 0.1892$$

$$R = 1.0000$$

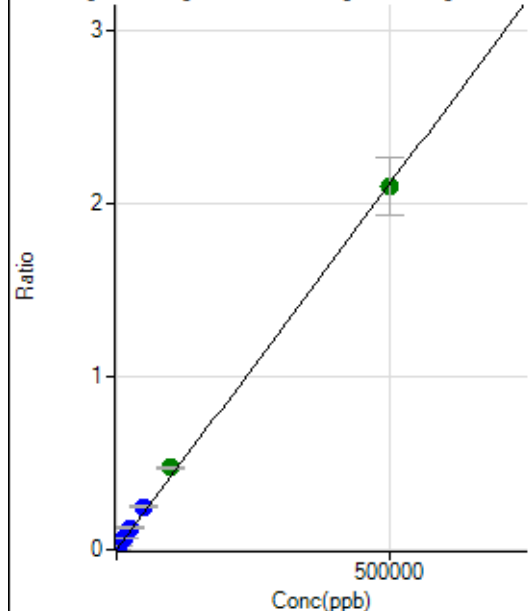
$$DL = 4.239$$

$$BEC = 197.4$$

Weight: <None>

Min Conc: 0

43 Ca [No Gas] ISTD:45 Sc [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	411.12	0.0001	P	3.2
2	☐	500.000	638.164	7833.19	0.0028	P	1.2
3	☐	5000.000	6028.661	70107.94	0.0256	P	1.7
4	☐	12500.000	14735.769	174214.94	0.0625	P	0.2
5	☐	25000.000	30200.068	347717.50	0.1279	P	2.1
6	☐	50000.000	58825.161	686779.50	0.2489	P	3.0
7	☐	100000.00	111834.07	1328684.26	0.4731	A	1.4
8	☐	500000.00	496424.34	6567233.79	2.0997	A	15.7

$$y = 4.2294E-006 * x + 1.4878E-004$$

R = 0.9996

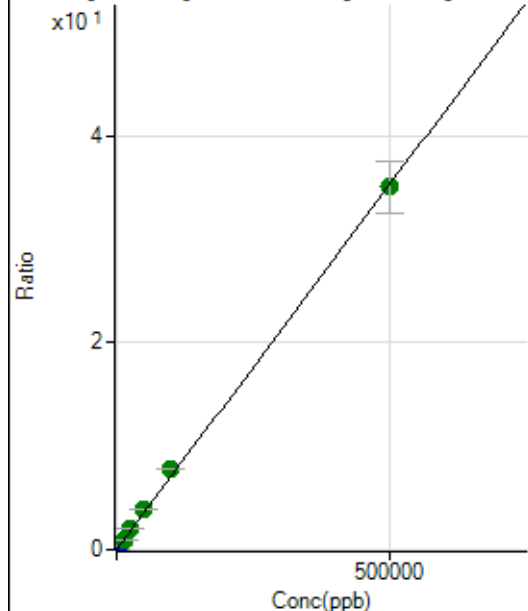
DL = 3.369

BEC = 35.18

Weight: <None>

Min Conc: 0

44 Ca [No Gas] ISTD:45 Sc [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	8399.36	0.0030	P	4.5
2	☐	500.000	634.163	131278.14	0.0477	P	1.3
3	☐	5000.000	5857.774	1136680.00	0.4158	P	0.8
4	☐	12500.000	13860.482	2731916.42	0.9797	A	0.7
5	☐	25000.000	28326.264	5434619.50	1.9990	A	3.4
6	☐	50000.000	55239.490	10747658.10	3.8953	A	2.1
7	☐	100000.00	110983.84	21969185.65	7.8232	A	1.6
8	☐	500000.00	497070.24	109631225.0	35.0276	A	14.4

$$y = 7.0462E-005 * x + 0.0030$$

R = 0.9997

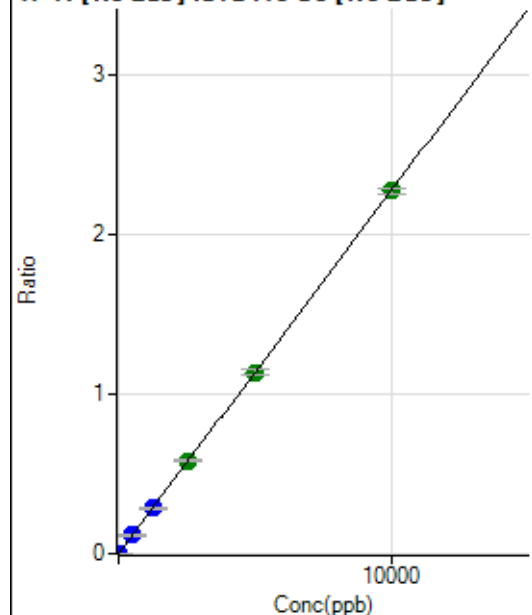
DL = 5.821

BEC = 43.19

Weight: <None>

Min Conc: 0

47 Ti [No Gas] ISTD:45 Sc [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	54.45	0.0000	P	22.2
2	☐	5.000	5.384	3429.31	0.0012	P	2.8
3	☐	500.000	504.786	314528.19	0.1151	P	1.1
4	☐	1250.000	1244.046	790667.95	0.2835	P	0.5
5	☐	2500.000	2559.743	1585997.69	0.5834	A	3.5
6	☐	5000.000	5000.291	3143671.34	1.1395	A	3.0
7	☐	10000.000	9985.424	6390259.07	2.2756	A	1.6
8	☐			472.24	0.0002	P	34.3

$$y = 2.2789E-004 * x + 1.9787E-005$$

R = 1.0000

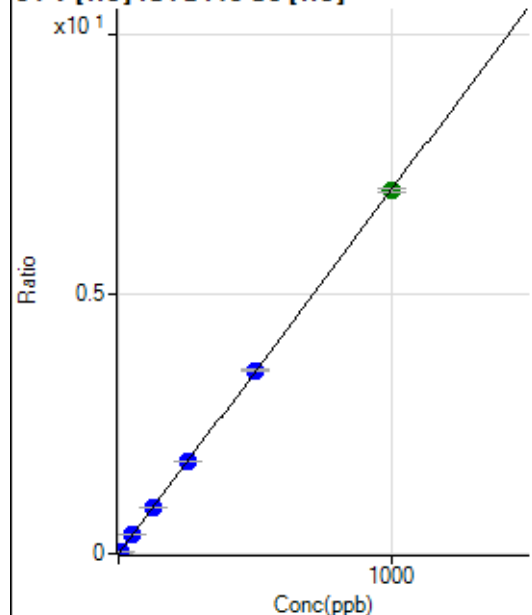
DL = 0.05789

BEC = 0.08683

Weight: <None>

Min Conc: 0

51 V [He] ISTD:45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	7.78	0.0000	P	108.
2	☐	5.000	5.293	9825.50	0.0372	P	1.5
3	☐	50.000	50.510	92084.42	0.3548	P	0.8
4	☐	125.000	125.839	229139.35	0.8838	P	0.1
5	☐	250.000	254.054	448219.85	1.7842	P	0.6
6	☐	500.000	504.423	896969.19	3.5425	P	0.5
7	☐	1000.000	996.643	1825850.10	6.9993	A	1.1
8	☐			598.91	0.0021	P	8.5

$$y = 0.0070 * x + 2.9666E-005$$

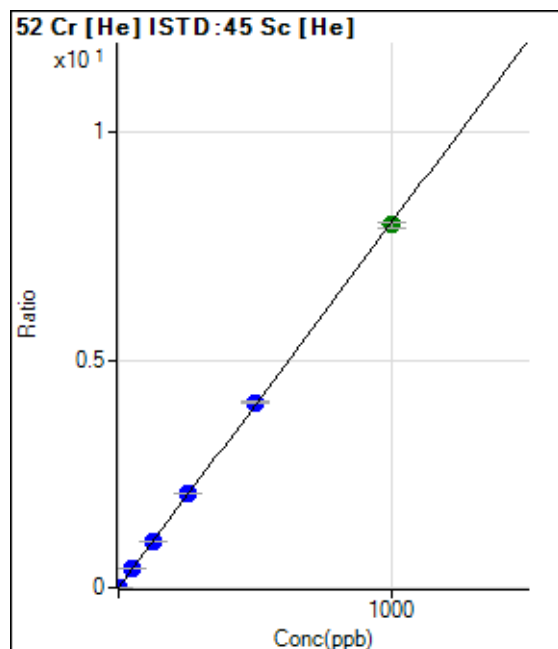
R = 1.0000

DL = 0.0137

BEC = 0.004224

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	861.14	0.0033	P	10.5
2	☐	2.000	2.211	5542.18	0.0210	P	1.2
3	☐	50.000	51.624	108232.74	0.4170	P	0.2
4	☐	125.000	127.391	265520.08	1.0241	P	0.5
5	☐	250.000	258.158	520527.24	2.0720	P	0.5
6	☐	500.000	507.342	1030238.41	4.0688	P	0.4
7	☐	1000.000	993.909	2078500.70	7.9679	A	1.3
8	☐			19858.72	0.0701	P	1.9

$$y = 0.0080 * x + 0.0033$$

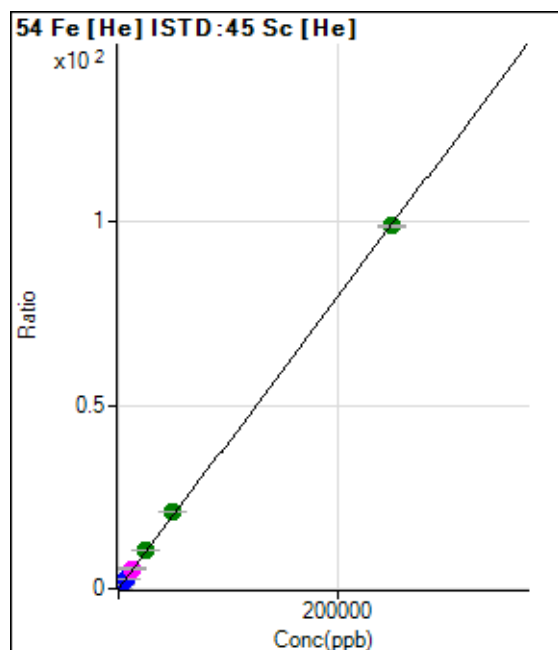
$$R = 0.9999$$

$$DL = 0.1287$$

$$BEC = 0.4083$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	2506.90	0.0095	P	5.7
2	☐	50.000	60.866	8892.70	0.0337	P	2.8
3	☐	2500.000	2783.841	289181.03	1.1141	P	1.0
4	☐	6250.000	6876.171	709821.62	2.7378	P	0.7
5	☐	12500.000	13746.945	1372697.41	5.4639	M	1.8
6	☐	25000.000	26627.924	2677528.54	10.5746	A	0.9
7	☐	50000.000	52613.001	5447886.83	20.8847	A	1.7
8	☐	250000.00	249233.76	28029551.53	98.8974	A	0.7

$$y = 3.9677E-004 * x + 0.0095$$

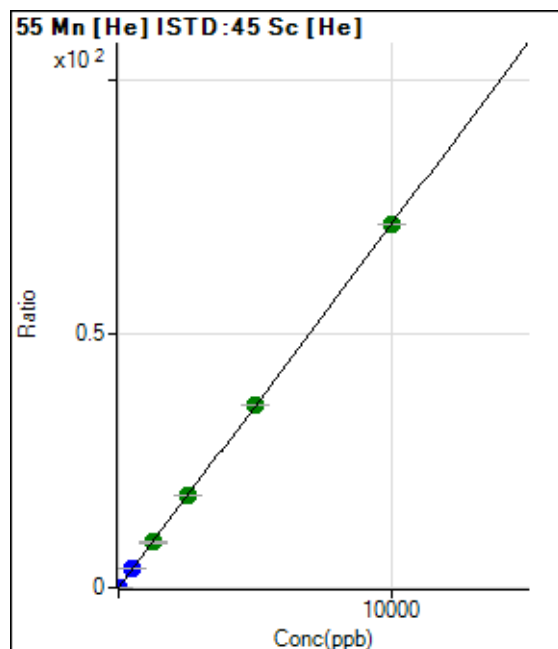
$$R = 0.9999$$

$$DL = 4.076$$

$$BEC = 24$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1774.57	0.0067	P	4.0
2	☐	1.000	0.990	3648.26	0.0138	P	2.5
3	☐	500.000	507.637	943402.38	3.6343	P	0.4
4	☐	1250.000	1243.051	2304772.90	8.8896	A	1.4
5	☐	2500.000	2534.054	4550815.76	18.1152	A	1.1
6	☐	5000.000	5022.304	9089043.54	35.8963	A	0.4
7	☐	10000.000	9980.821	18608105.00	71.3299	A	0.1
8	☐			13065.75	0.0461	P	1.6

$$y = 0.0071 * x + 0.0067$$

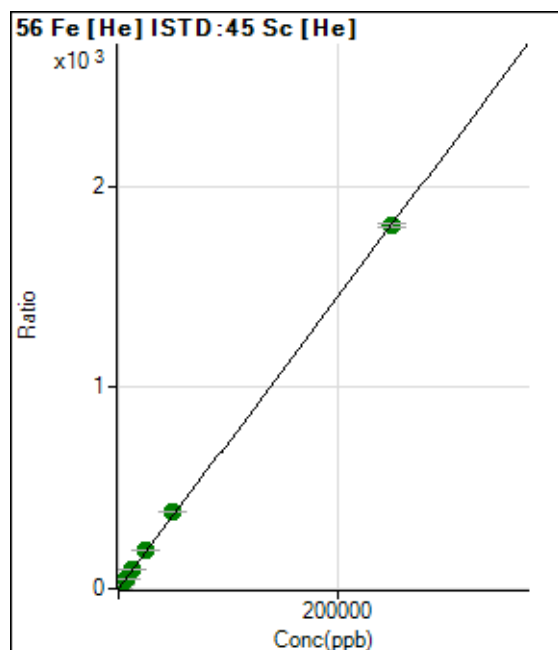
R = 1.0000

DL = 0.1132

BEC = 0.9432

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	21637.88	0.0822	P	1.0
2	☐	50.000	59.518	135299.35	0.5123	P	1.7
3	☐	2500.000	2632.877	4960533.57	19.1104	A	1.0
4	☐	6250.000	6523.452	12244827.32	47.2281	A	0.9
5	☐	12500.000	13352.988	24263387.41	96.5862	A	0.9
6	☐	25000.000	26345.747	48231206.50	190.4868	A	0.7
7	☐	50000.000	52485.407	98971627.42	379.4020	A	0.9
8	☐	250000.00	249317.52	510686899.0	1,801.936	A	1.0

$$y = 0.0072 * x + 0.0822$$

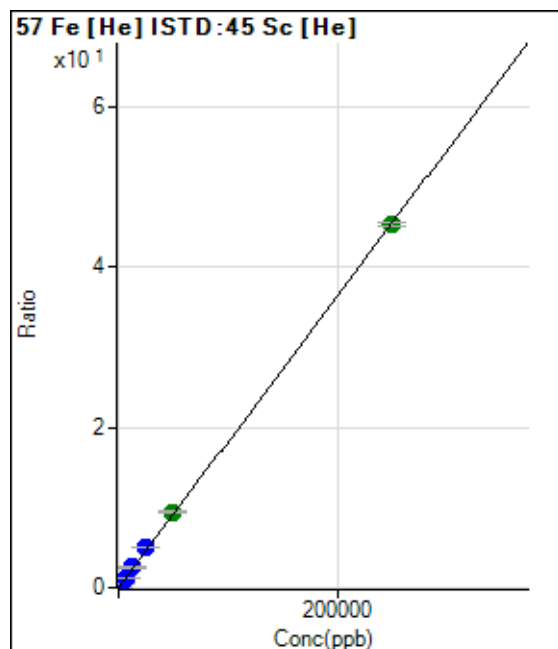
R = 0.9999

DL = 0.3256

BEC = 11.37

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	1271.18	0.0048	P	1.4
2	☐	50.000	63.425	4315.11	0.0163	P	0.6
3	☐	2500.000	2759.045	131227.14	0.5056	P	0.5
4	☐	6250.000	6808.723	321624.88	1.2405	P	0.7
5	☐	12500.000	13871.578	633652.21	2.5223	P	0.5
6	☐	25000.000	27339.842	1257541.93	4.9666	P	0.6
7	☐	50000.000	52037.439	2464868.90	9.4488	A	0.6
8	☐	250000.00	249273.38	12822699.67	45.2440	A	1.2

$$y = 1.8148E-004 * x + 0.0048$$

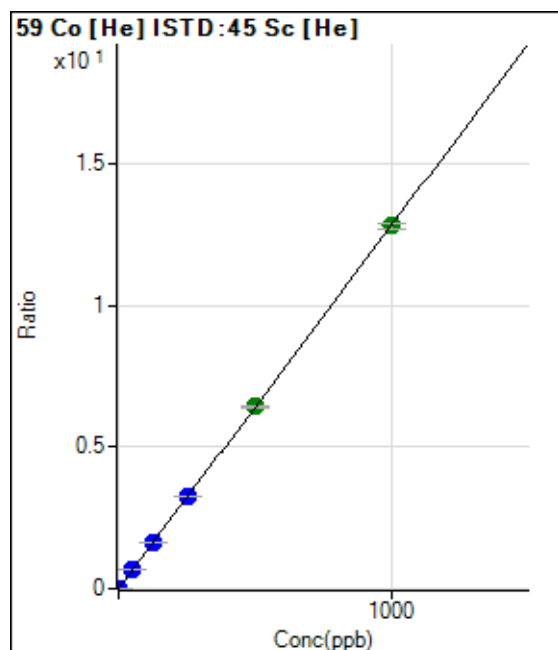
R = 0.9999

DL = 1.148

BEC = 26.6

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	111.11	0.0004	P	7.2
2	☐	1.000	1.164	4058.37	0.0154	P	3.8
3	☐	50.000	51.106	170440.56	0.6566	P	0.9
4	☐	125.000	126.473	421151.55	1.6244	P	0.3
5	☐	250.000	255.155	823156.78	3.2767	P	0.5
6	☐	500.000	500.137	1626146.14	6.4223	A	0.4
7	☐	1000.000	998.403	3344210.16	12.8202	A	1.3
8	☐			9557.56	0.0337	P	2.0

$$y = 0.0128 * x + 4.2192E-004$$

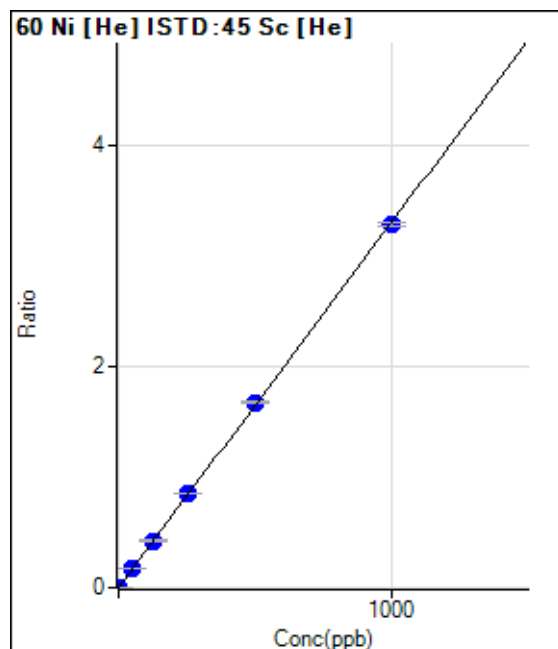
R = 1.0000

DL = 0.007139

BEC = 0.03286

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	221.11	0.0008	P	14.0
2	☐	1.000	1.026	1116.72	0.0042	P	7.2
3	☐	50.000	52.453	45197.91	0.1741	P	1.7
4	☐	125.000	128.375	110184.41	0.4250	P	1.0
5	☐	250.000	258.327	214622.61	0.8543	P	0.5
6	☐	500.000	507.968	425162.99	1.6791	P	0.4
7	☐	1000.000	993.390	856398.35	3.2829	P	1.1
8	☐			3839.42	0.0135	P	3.0

$$y = 0.0033 * x + 8.3958E-004$$

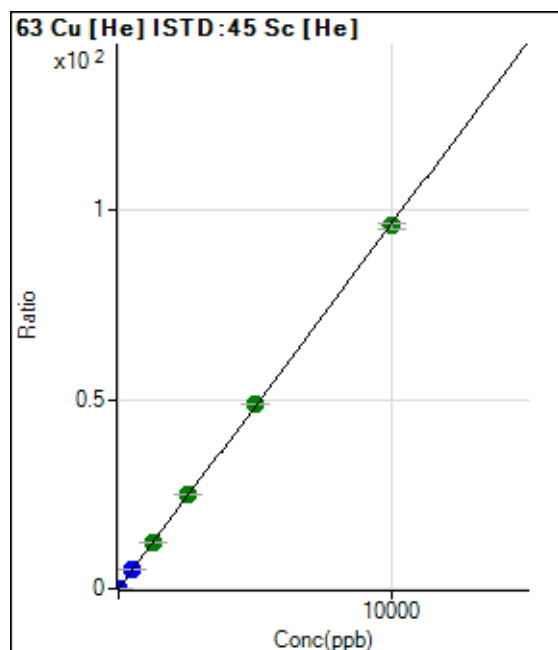
R = 0.9999

DL = 0.1069

BEC = 0.2541

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1491.20	0.0057	P	1.7
2	☐	2.000	2.129	6916.11	0.0262	P	2.6
3	☐	500.000	514.689	1289674.68	4.9685	P	0.6
4	☐	1250.000	1276.062	3191583.04	12.3099	A	1.4
5	☐	2500.000	2580.910	6252788.17	24.8918	A	1.9
6	☐	5000.000	5063.227	12363204.68	48.8272	A	0.3
7	☐	10000.000	9944.167	25013829.90	95.8910	A	1.3
8	☐			8920.51	0.0315	P	2.4

$$y = 0.0096 * x + 0.0057$$

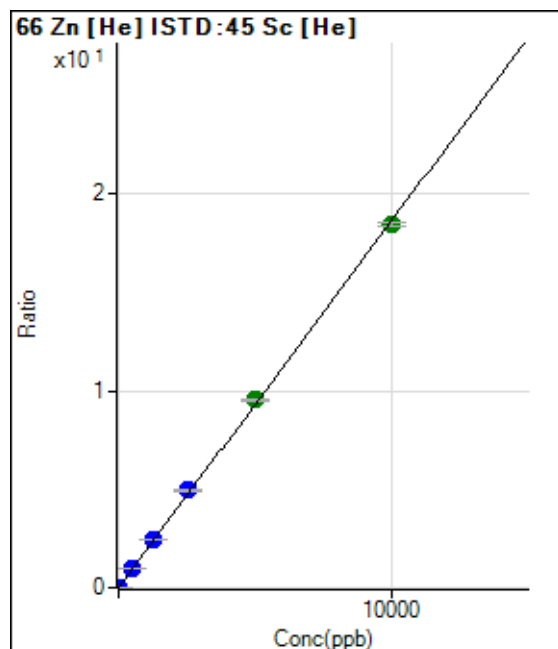
R = 0.9999

DL = 0.02992

BEC = 0.5873

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	345.56	0.0013	P	5.1
2	☐	5.000	5.156	2883.63	0.0109	P	1.4
3	☐	500.000	543.494	263212.27	1.0140	P	0.5
4	☐	1250.000	1306.963	631742.29	2.4366	P	0.9
5	☐	2500.000	2651.060	1241303.24	4.9411	P	0.7
6	☐	5000.000	5122.913	2417385.94	9.5470	A	0.7
7	☐	10000.000	9891.483	4808305.80	18.4324	A	1.0
8	☐			9059.49	0.0320	P	2.5

$$y = 0.0019 * x + 0.0013$$

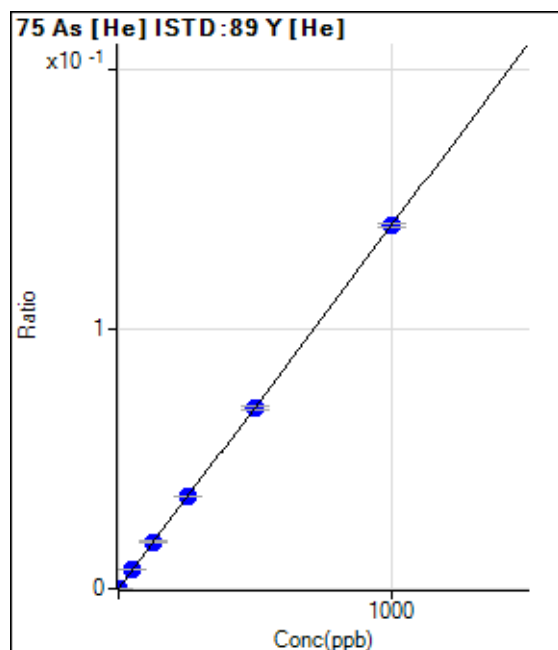
$$R = 0.9998$$

$$DL = 0.1083$$

$$BEC = 0.7045$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	8.89	0.0000	P	58.6
2	☐	1.000	1.195	357.79	0.0002	P	6.0
3	☐	50.000	51.270	14903.12	0.0072	P	0.4
4	☐	125.000	128.128	37403.69	0.0179	P	2.4
5	☐	250.000	255.025	73793.39	0.0357	P	0.4
6	☐	500.000	499.150	147348.94	0.0698	P	2.3
7	☐	1000.000	998.714	298258.80	0.1396	P	1.0
8	☐			164.45	0.0001	P	19.8

$$y = 1.3981E-004 * x + 4.3346E-006$$

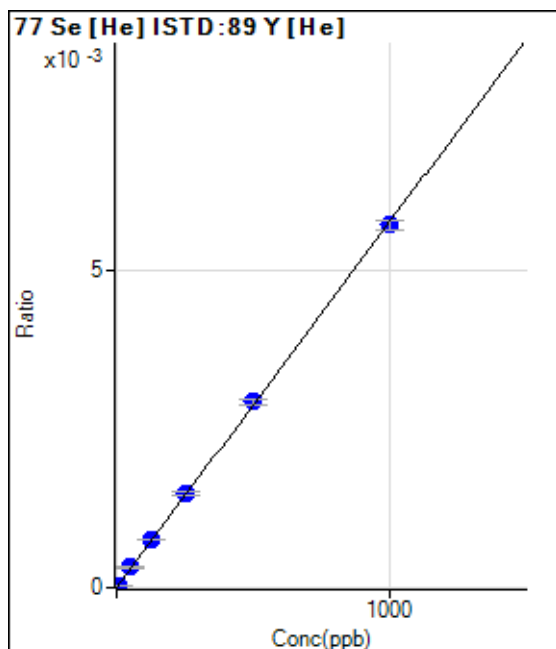
$$R = 1.0000$$

$$DL = 0.05449$$

$$BEC = 0.031$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	0.00	0.0000	P	
2	☐	5.000	5.628	67.78	0.0000	P	3.8
3	☐	50.000	56.851	682.24	0.0003	P	9.4
4	☐	125.000	130.911	1577.88	0.0008	P	0.7
5	☐	250.000	258.014	3082.58	0.0015	P	3.0
6	☐	500.000	508.929	6204.68	0.0029	P	2.8
7	☐	1000.000	992.447	12238.47	0.0057	P	2.5
8	☐			7.78	0.0000	P	26.5

$$y = 5.7730\text{E-}006 * x + 0.0000\text{E+}000$$

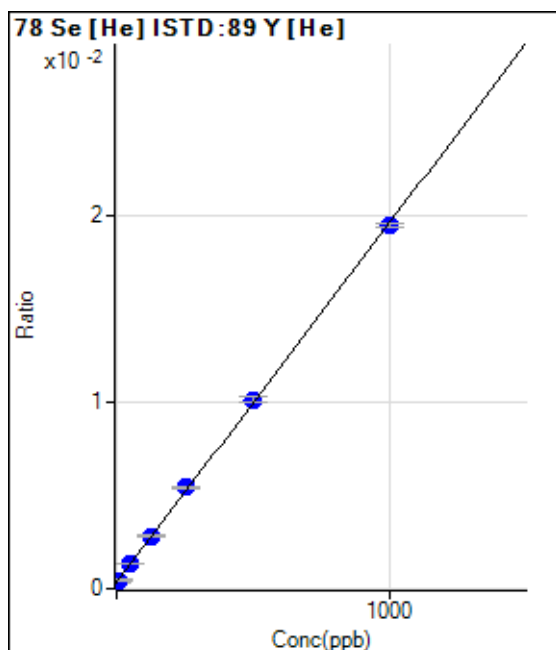
R = 0.9999

DL = 0

BEC = 0

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	685.58	0.0003	P	4.5
2	☐	5.000	6.589	957.82	0.0005	P	6.7
3	☐	50.000	53.671	2839.19	0.0014	P	2.6
4	☐	125.000	128.337	5857.89	0.0028	P	2.6
5	☐	250.000	265.999	11301.08	0.0055	P	1.9
6	☐	500.000	508.501	21407.84	0.0101	P	2.4
7	☐	1000.000	991.141	41533.73	0.0194	P	1.1
8	☐			658.91	0.0003	P	5.3

$$y = 1.9284\text{E-}005 * x + 3.3158\text{E-}004$$

R = 0.9998

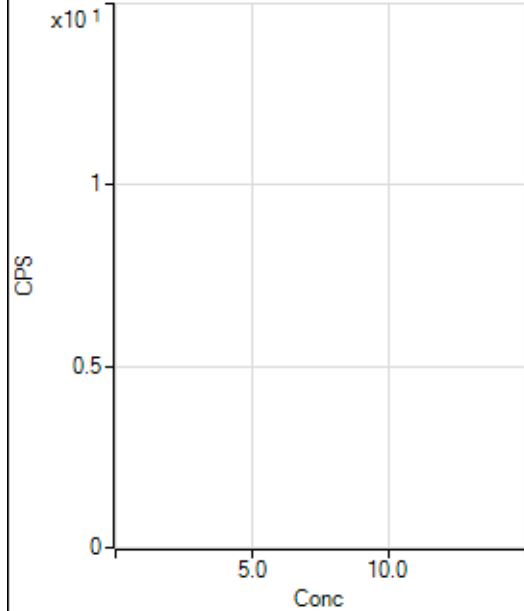
DL = 2.307

BEC = 17.19

Weight: <None>

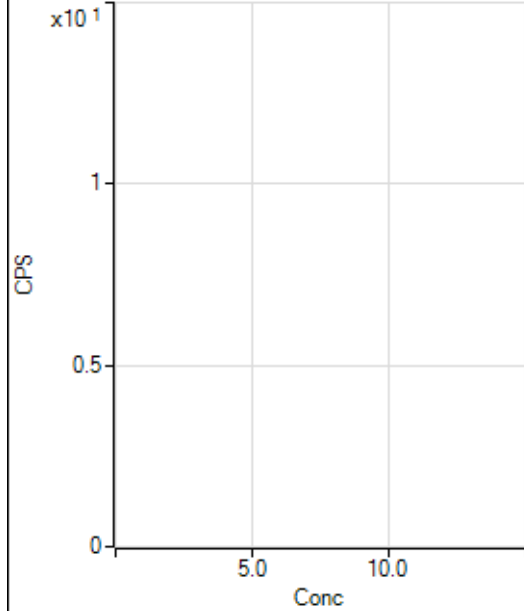
Min Conc: 0

81 Br [No Gas] No available calibration points

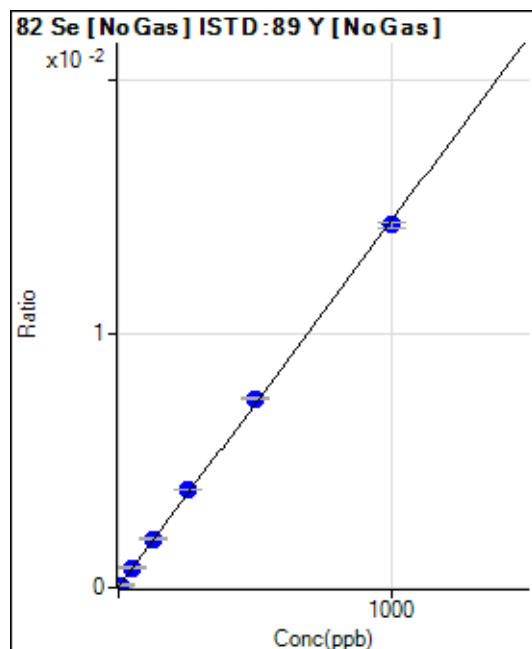


	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			25258.41		P	0.9
2	☐			24934.57		P	1.0
3	☐			24480.40		P	0.5
4	☐			24194.48		P	0.3
5	☐			24374.73		P	0.8
6	☐			24550.53		P	1.1
7	☐			25796.06		P	1.5
8	☐			27192.93		P	3.2

81 Br [He] No available calibration points



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			312.23		P	16.6
2	☐			235.56		P	4.5
3	☐			184.45		P	14.5
4	☐			193.33		P	7.9
5	☐			205.56		P	11.0
6	☐			181.11		P	6.5
7	☐			165.56		P	20.2
8	☐			228.90		P	12.6



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	181.94	0.0000	P	17.5
2	☐	5.000	6.002	791.28	0.0001	P	4.4
3	☐	50.000	53.223	5483.80	0.0008	P	1.7
4	☐	125.000	131.746	13615.67	0.0019	P	1.8
5	☐	250.000	266.412	26952.85	0.0039	P	0.5
6	☐	500.000	513.228	52098.29	0.0074	P	1.3
7	☐	1000.000	988.273	102693.68	0.0143	P	1.6
8	☐			370.51	0.0000	P	15.2

$y = 1.4426E-005 * x + 2.5751E-005$

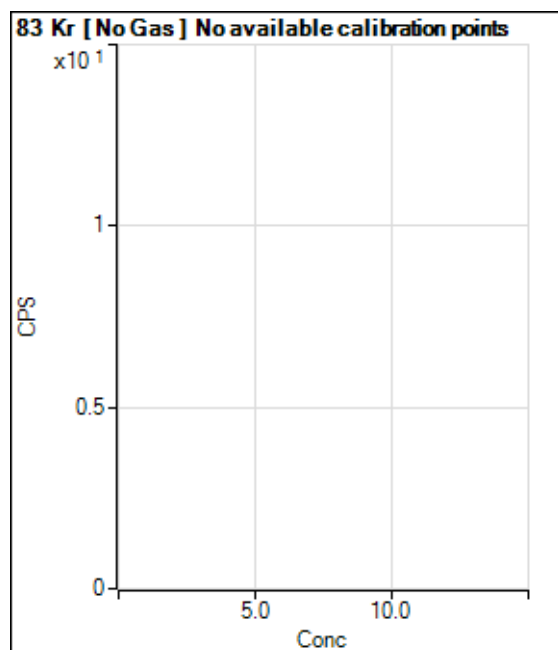
$R = 0.9997$

$DL = 0.9381$

$BEC = 1.785$

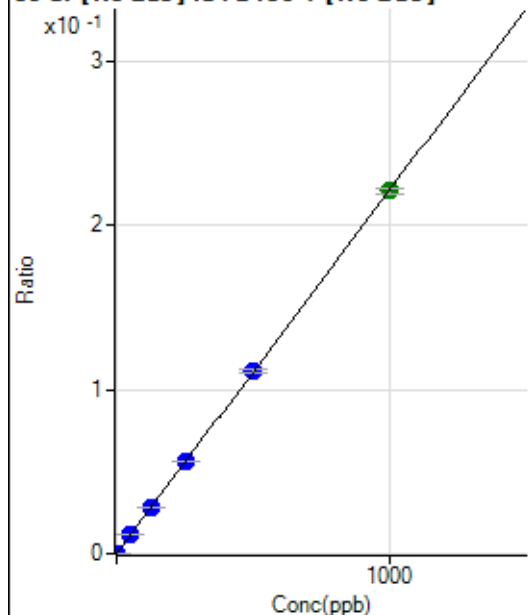
Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			330.00		P	10.6
2	☐			343.34		P	4.2
3	☐			362.23		P	7.8
4	☐			414.46		P	8.1
5	☐			327.79		P	11.3
6	☐			327.78		P	7.6
7	☐			343.34		P	19.3
8	☐			378.90		P	16.3

86 Sr [No Gas] ISTD:89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	568.90	0.0001	P	7.0
2	☐	1.000	1.087	2260.20	0.0003	P	2.1
3	☐	50.000	50.736	78113.55	0.0113	P	0.7
4	☐	125.000	124.792	195697.45	0.0277	P	1.0
5	☐	250.000	253.606	391367.07	0.0562	P	0.2
6	☐	500.000	501.693	778710.03	0.1111	P	1.5
7	☐	1000.000	998.241	1588327.96	0.2209	A	1.5
8	☐			5940.15	0.0007	P	12.7

$$y = 2.2120E-004 * x + 8.0445E-005$$

R = 1.0000

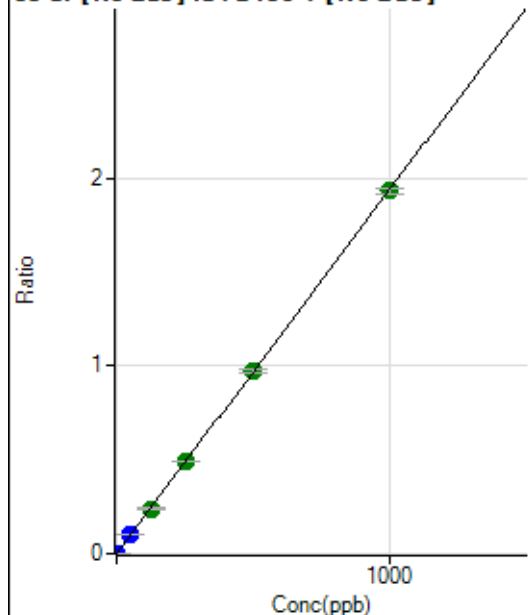
DL = 0.07616

BEC = 0.3637

Weight: <None>

Min Conc: 0

88 Sr [No Gas] ISTD:89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	94.44	0.0000	P	15.2
2	☐	1.000	1.109	15222.40	0.0022	P	1.4
3	☐	50.000	51.169	685295.21	0.0992	P	0.3
4	☐	125.000	124.009	1698716.64	0.2403	A	0.9
5	☐	250.000	255.665	3451322.00	0.4954	A	0.3
6	☐	500.000	502.810	6831551.43	0.9743	A	1.9
7	☐	1000.000	997.244	13894760.35	1.9324	A	1.4
8	☐			48038.80	0.0060	P	14.7

$$y = 0.0019 * x + 1.3345E-005$$

R = 1.0000

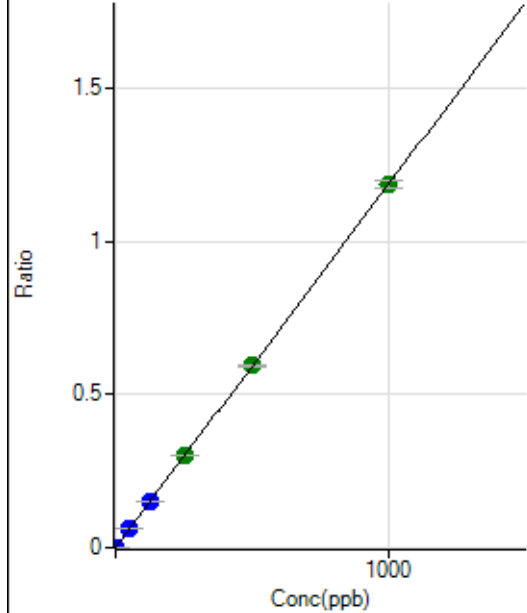
DL = 0.003147

BEC = 0.006887

Weight: <None>

Min Conc: 0

90 Zr [No Gas] ISTD : 89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	267.78	0.0000	P	9.2
2	☐	1.000	1.047	9001.73	0.0013	P	3.7
3	☐	50.000	50.655	415464.28	0.0601	P	0.4
4	☐	125.000	125.369	1051373.91	0.1487	P	1.1
5	☐	250.000	254.756	2105290.28	0.3022	A	0.8
6	☐	500.000	500.474	4162790.73	0.5936	A	1.4
7	☐	1000.000	998.495	8515830.01	1.1843	A	2.0
8	☐			4350.69	0.0005	P	14.4

$$y = 0.0012 * x + 3.7889E-005$$

$$R = 1.0000$$

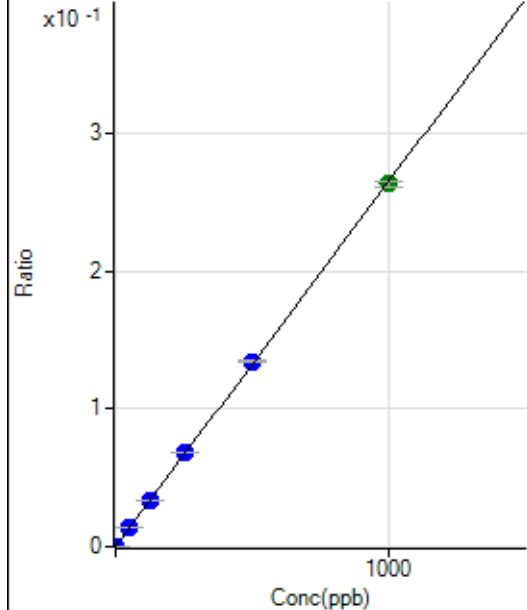
$$DL = 0.008847$$

$$BEC = 0.03194$$

Weight: <None>

Min Conc: 0

91 Zr [No Gas] ISTD : 89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	63.33	0.0000	P	63.3
2	☐	1.000	1.013	1949.04	0.0003	P	2.8
3	☐	50.000	50.868	93047.24	0.0135	P	0.4
4	☐	125.000	125.339	234412.54	0.0332	P	1.2
5	☐	250.000	256.439	472599.71	0.0678	P	0.3
6	☐	500.000	508.334	942905.20	0.1345	P	1.4
7	☐	1000.000	994.138	1890821.60	0.2630	A	1.5
8	☐			945.59	0.0001	P	17.8

$$y = 2.6451E-004 * x + 9.0082E-006$$

$$R = 0.9999$$

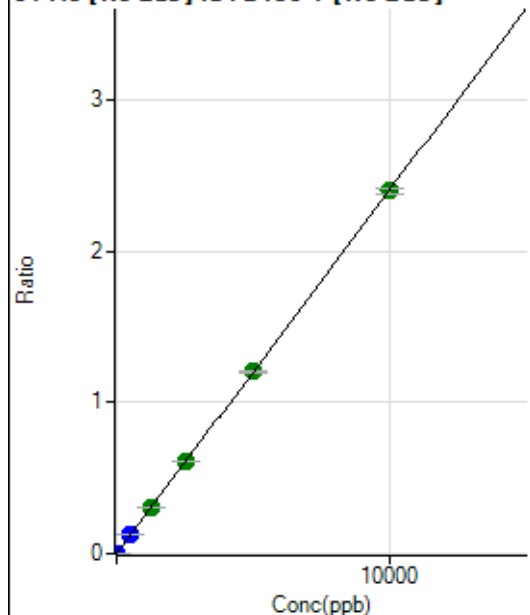
$$DL = 0.06464$$

$$BEC = 0.03406$$

Weight: <None>

Min Conc: 0

94 Mo [No Gas] ISTD:89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	126.67	0.0000	P	3.7
2	☐	5.000	6.359	10880.77	0.0015	P	2.6
3	☐	500.000	506.398	841089.22	0.1217	P	0.6
4	☐	1250.000	1253.767	2129881.46	0.3013	A	1.1
5	☐	2500.000	2544.828	4260465.98	0.6116	A	0.5
6	☐	5000.000	5016.041	8452942.44	1.2054	A	1.0
7	☐	10000.000	9979.981	17244711.55	2.3983	A	1.9
8	☐			4454.06	0.0006	P	17.9

$$y = 2.4031E-004 * x + 1.7917E-005$$

R = 1.0000

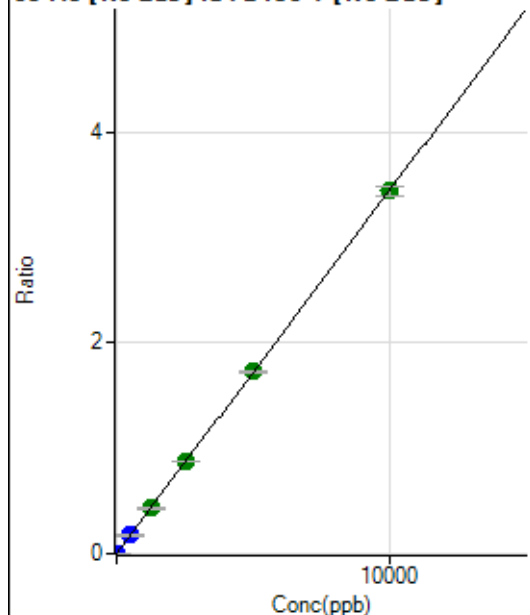
DL = 0.008239

BEC = 0.07456

Weight: <None>

Min Conc: 0

95 Mo [No Gas] ISTD:89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	27.78	0.0000	P	14.8
2	☐	5.000	5.354	13024.81	0.0018	P	0.8
3	☐	500.000	504.383	1201798.91	0.1739	P	0.7
4	☐	1250.000	1244.654	3033324.50	0.4292	A	2.3
5	☐	2500.000	2522.069	6058049.91	0.8696	A	0.3
6	☐	5000.000	5007.868	12107675.10	1.7267	A	1.6
7	☐	10000.000	9990.997	24769506.85	3.4448	A	2.4
8	☐			3781.64	0.0005	P	22.9

$$y = 3.4479E-004 * x + 3.9336E-006$$

R = 1.0000

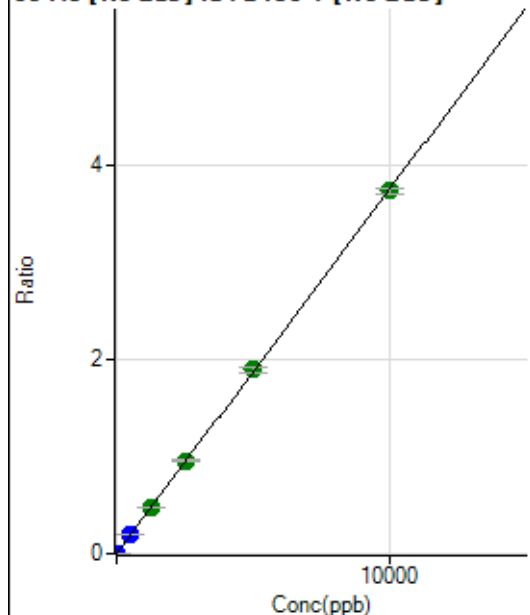
DL = 0.005049

BEC = 0.01141

Weight: <None>

Min Conc: 0

96 Mo [No Gas] ISTD:89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	133.34	0.0000	P	12.1
2	☐	5.000	5.513	14715.30	0.0021	P	2.1
3	☐	500.000	507.751	1318762.40	0.1908	P	0.4
4	☐	1250.000	1255.847	3336291.51	0.4720	A	0.9
5	☐	2500.000	2553.570	6685499.21	0.9597	A	0.9
6	☐	5000.000	5047.226	13299327.16	1.8968	A	2.7
7	☐	10000.000	9961.876	26918616.82	3.7437	A	1.7
8	☐			16366.05	0.0021	P	17.2

$$y = 3.7581E-004 * x + 1.8860E-005$$

R = 1.0000

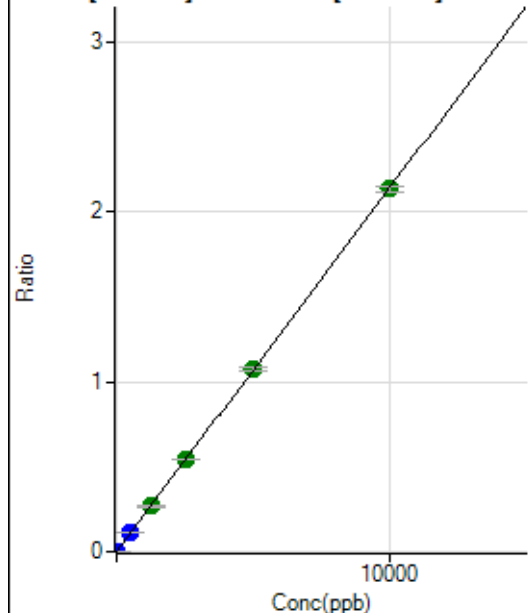
DL = 0.01819

BEC = 0.05018

Weight: <None>

Min Conc: 0

97 Mo [No Gas] ISTD:89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	31.11	0.0000	P	15.7
2	☐	5.000	5.336	8081.21	0.0011	P	0.9
3	☐	500.000	512.943	759490.13	0.1099	P	0.3
4	☐	1250.000	1247.811	1889815.09	0.2673	A	1.1
5	☐	2500.000	2544.768	3798201.71	0.5452	A	0.7
6	☐	5000.000	5021.054	7543376.35	1.0758	A	1.2
7	☐	10000.000	9977.907	15371085.19	2.1377	A	1.6
8	☐			2584.70	0.0003	P	16.5

$$y = 2.1425E-004 * x + 4.3993E-006$$

R = 1.0000

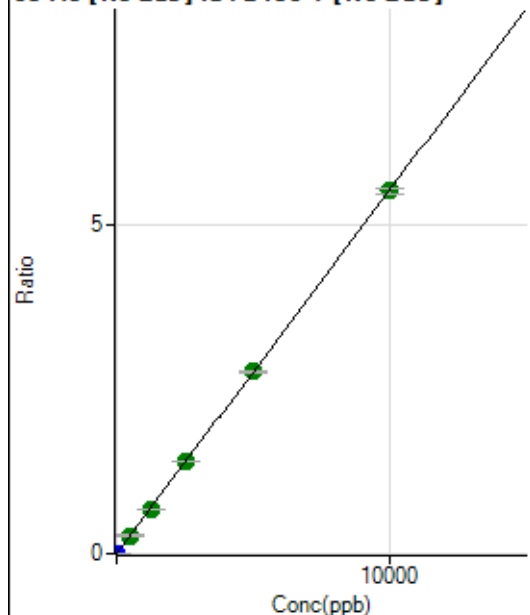
DL = 0.009657

BEC = 0.02053

Weight: <None>

Min Conc: 0

98 Mo [No Gas] ISTD:89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	43.33	0.0000	P	16.3
2	☐	5.000	5.459	21272.27	0.0030	P	2.8
3	☐	500.000	501.078	1913163.25	0.2769	A	2.3
4	☐	1250.000	1236.340	4828643.26	0.6831	A	0.8
5	☐	2500.000	2552.170	9823094.72	1.4101	A	1.1
6	☐	5000.000	5010.810	19412629.29	2.7685	A	1.4
7	☐	10000.000	9983.206	39660181.08	5.5157	A	1.7
8	☐			5774.54	0.0007	P	17.3

$$y = 5.5250E-004 * x + 6.1366E-006$$

$$R = 1.0000$$

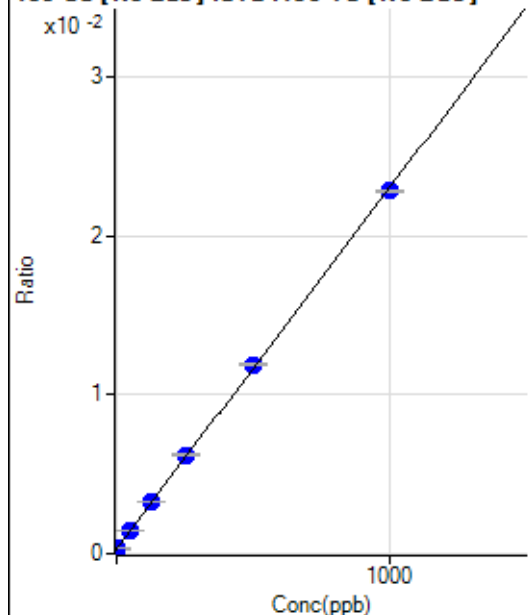
$$DL = 0.005441$$

$$BEC = 0.01111$$

Weight: <None>

Min Conc: 0

106 Cd [No Gas] ISTD:159 Tb [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	1749.02	0.0003	P	4.7
2	☐	1.000	1.225	1920.15	0.0003	P	3.8
3	☐	50.000	52.733	8744.93	0.0015	P	1.7
4	☐	125.000	131.024	19277.34	0.0033	P	0.7
5	☐	250.000	260.067	37289.06	0.0062	P	1.6
6	☐	500.000	510.597	71477.27	0.0119	P	1.1
7	☐	1000.000	991.295	140396.64	0.0229	P	0.3
8	☐			2094.62	0.0003	P	0.3

$$y = 2.2768E-005 * x + 2.9719E-004$$

$$R = 0.9999$$

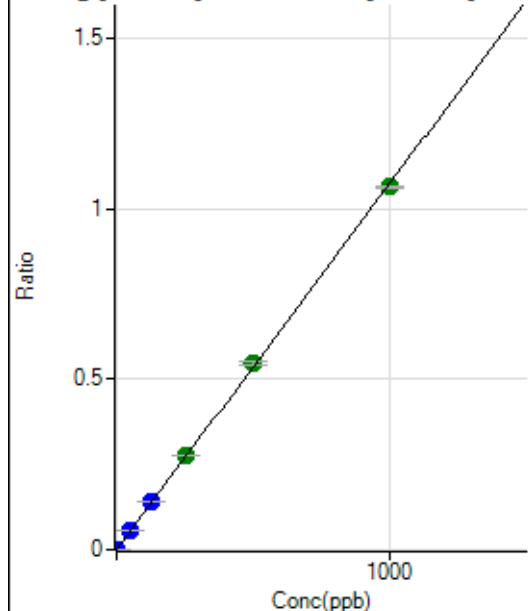
$$DL = 1.826$$

$$BEC = 13.05$$

Weight: <None>

Min Conc: 0

107 Ag [No Gas] ISTD :159 Tb [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	48.89	0.0000	P	40.3
2	☐	1.000	1.110	7087.35	0.0012	P	2.6
3	☐	50.000	53.219	333475.21	0.0571	P	1.3
4	☐	125.000	133.353	840962.60	0.1431	P	0.3
5	☐	250.000	257.024	1653924.40	0.2758	A	1.1
6	☐	500.000	510.445	3283445.54	0.5478	A	1.4
7	☐	1000.000	991.816	6533953.38	1.0643	A	0.8
8	☐			691.13	0.0001	P	31.0

$$y = 0.0011 * x + 8.3426E-006$$

R = 0.9999

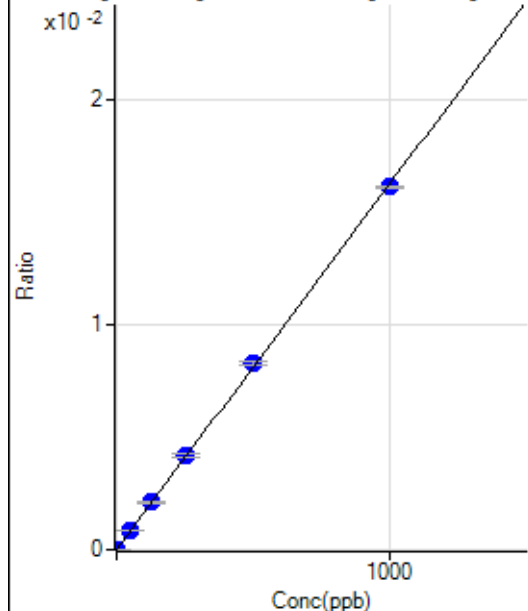
DL = 0.009391

BEC = 0.007774

Weight: <None>

Min Conc: 0

108 Cd [No Gas] ISTD :159 Tb [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	13.33	0.0000	P	75.8
2	☐	1.000	1.015	111.11	0.0000	P	8.7
3	☐	50.000	52.240	4978.67	0.0009	P	2.3
4	☐	125.000	129.045	12354.24	0.0021	P	1.4
5	☐	250.000	257.529	25144.12	0.0042	P	2.4
6	☐	500.000	509.450	49712.79	0.0083	P	1.7
7	☐	1000.000	992.775	99210.84	0.0162	P	0.5
8	☐			46.67	0.0000	P	8.2

$$y = 1.6274E-005 * x + 2.2863E-006$$

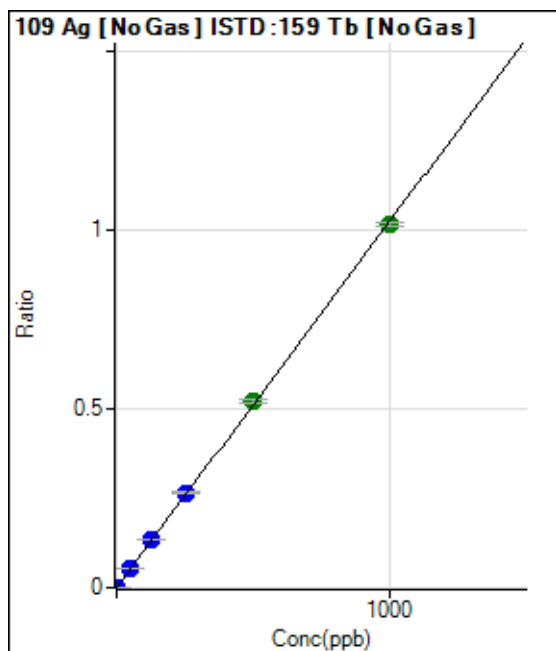
R = 0.9999

DL = 0.3196

BEC = 0.1405

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	17.78	0.0000	P	76.6
2	☐	1.000	1.123	6799.44	0.0012	P	2.0
3	☐	50.000	53.025	316516.52	0.0542	P	1.0
4	☐	125.000	132.719	797274.62	0.1357	P	1.1
5	☐	250.000	259.956	1593523.36	0.2658	P	0.7
6	☐	500.000	510.341	3127475.09	0.5217	A	1.5
7	☐	1000.000	991.224	6220829.84	1.0133	A	1.0
8	☐			658.91	0.0001	P	21.2

$$y = 0.0010 * x + 3.0212E-006$$

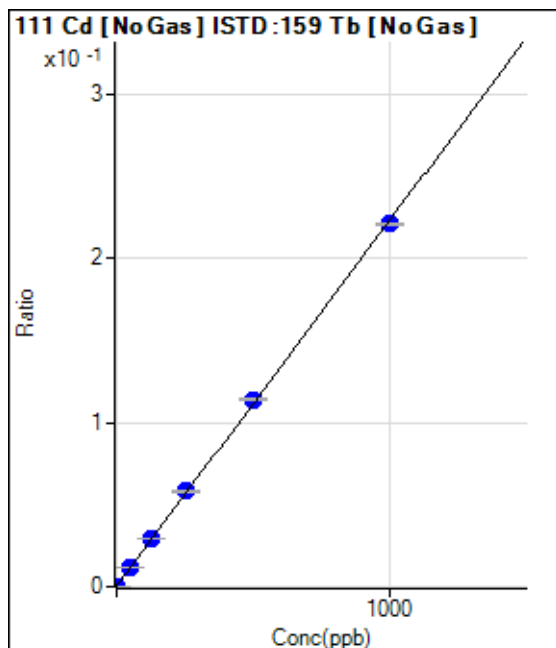
$$R = 0.9999$$

$$DL = 0.006793$$

$$BEC = 0.002955$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	1227.20	0.0002	P	4.3
2	☐	1.000	1.171	2771.97	0.0005	P	3.1
3	☐	50.000	52.427	69366.04	0.0119	P	0.5
4	☐	125.000	131.782	173629.03	0.0295	P	0.4
5	☐	250.000	259.996	348328.17	0.0581	P	0.9
6	☐	500.000	510.282	682262.74	0.1138	P	0.8
7	☐	1000.000	991.391	1356279.77	0.2209	P	0.6
8	☐			1685.79	0.0002	P	1.3

$$y = 2.2262E-004 * x + 2.0852E-004$$

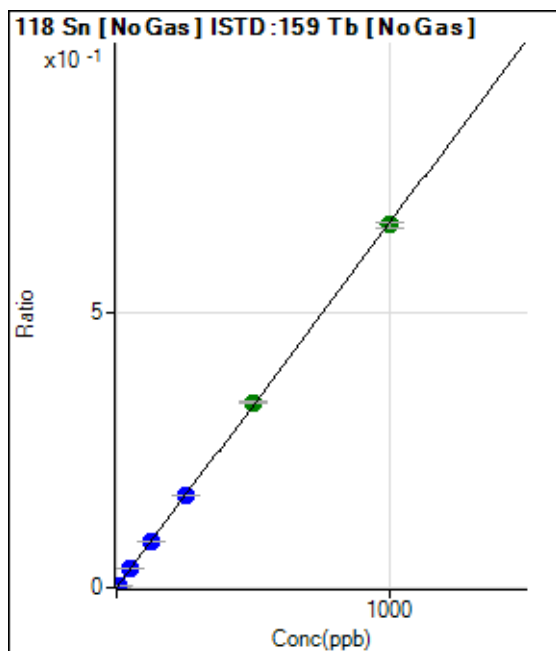
$$R = 0.9999$$

$$DL = 0.1217$$

$$BEC = 0.9366$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	752.25	0.0001	P	5.0
2	☐	5.000	5.722	23167.59	0.0039	P	1.1
3	☐	50.000	51.256	199145.73	0.0341	P	1.7
4	☐	125.000	128.204	500231.64	0.0851	P	0.3
5	☐	250.000	252.745	1005560.60	0.1677	P	0.4
6	☐	500.000	507.838	2019120.86	0.3368	A	0.9
7	☐	1000.000	994.928	4050682.72	0.6598	A	1.6
8	☐			1570.10	0.0002	P	9.6

$$y = 6.6298E-004 * x + 1.2789E-004$$

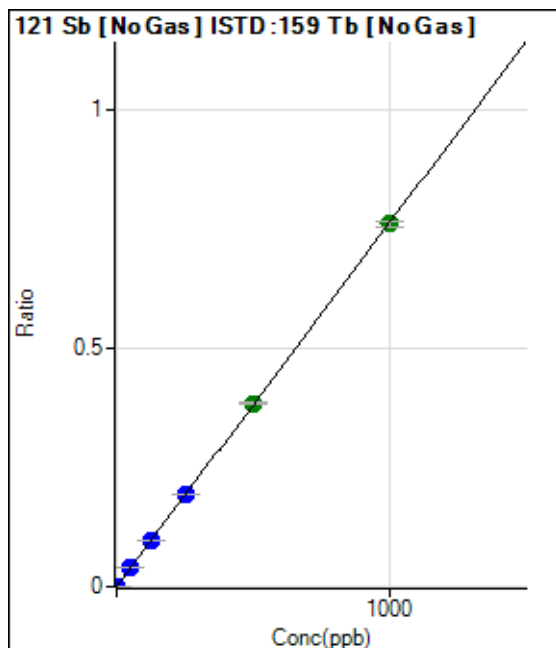
R = 0.9999

DL = 0.02907

BEC = 0.1929

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det	RSD
1	☐	0.000	0.000	35.55	0.0000	P	69.7
2	☐	2.000	2.208	9980.20	0.0017	P	1.9
3	☐	50.000	51.583	229700.02	0.0393	P	1.2
4	☐	125.000	128.145	574256.56	0.0977	P	0.7
5	☐	250.000	252.221	1153339.38	0.1923	P	0.7
6	☐	500.000	503.398	2301181.04	0.3839	A	1.2
7	☐	1000.000	997.273	4668627.15	0.7605	A	1.4
8	☐			2265.76	0.0003	P	20.0

$$y = 7.6257E-004 * x + 5.9919E-006$$

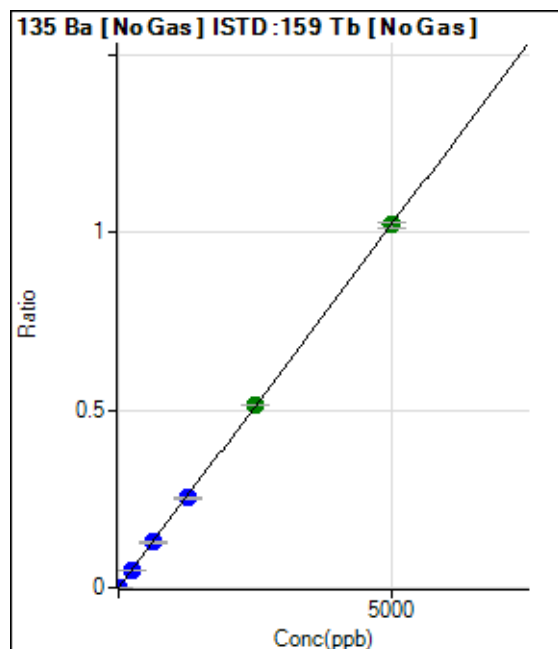
R = 1.0000

DL = 0.01644

BEC = 0.007858

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	23.33	0.0000	P	22.6
2	☐	10.000	10.446	12622.34	0.0021	P	3.2
3	☐	250.000	249.441	297414.68	0.0509	P	0.5
4	☐	625.000	622.670	747166.29	0.1271	P	0.3
5	☐	1250.000	1232.991	1509661.99	0.2518	P	0.6
6	☐	2500.000	2515.406	3078995.51	0.5136	A	1.0
7	☐	5000.000	4996.867	6264641.16	1.0203	A	1.5
8	☐			2640.27	0.0004	P	18.5

$$y = 2.0419E-004 * x + 3.9528E-006$$

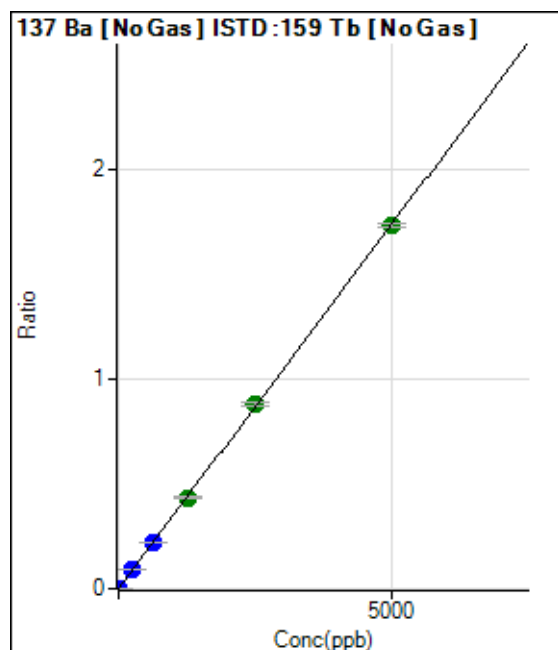
$$R = 1.0000$$

$$DL = 0.01312$$

$$BEC = 0.01936$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	16.67	0.0000	P	20.0
2	☐	10.000	10.654	21929.21	0.0037	P	1.1
3	☐	250.000	252.281	512880.72	0.0878	P	0.4
4	☐	625.000	629.906	1288758.31	0.2193	P	0.3
5	☐	1250.000	1252.799	2615471.68	0.4362	A	0.9
6	☐	2500.000	2534.720	5290136.76	0.8825	A	1.8
7	☐	5000.000	4981.212	10647266.92	1.7343	A	1.1
8	☐			4618.57	0.0007	P	15.2

$$y = 3.4816E-004 * x + 2.8315E-006$$

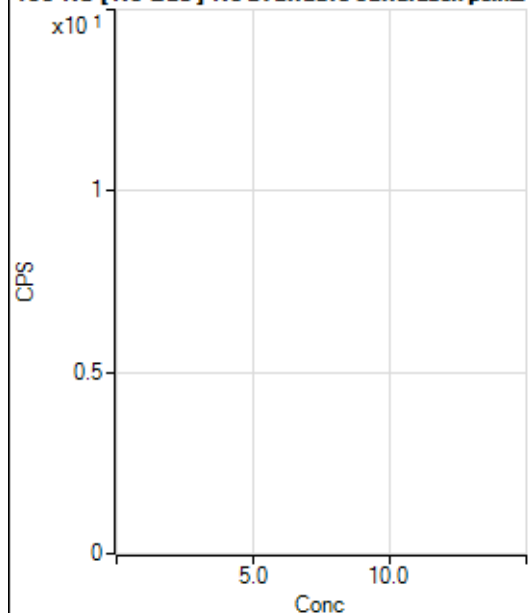
$$R = 1.0000$$

$$DL = 0.004892$$

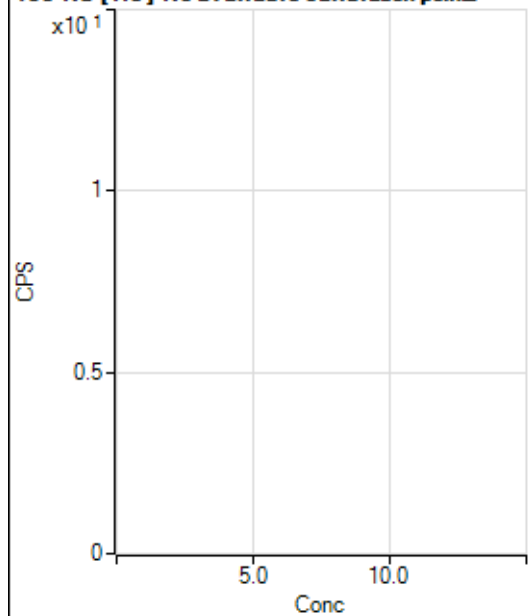
$$BEC = 0.008133$$

Weight: <None>

Min Conc: 0

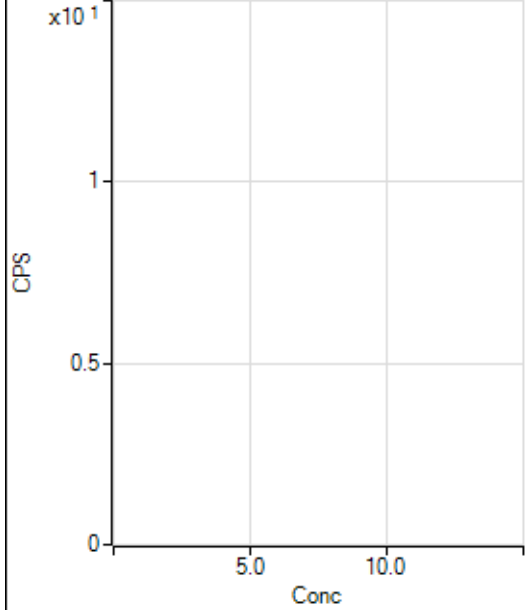
150 Nd [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			3.33		P	173.
2	☐			5.56		P	34.7
3	☐			10.00		P	57.7
4	☐			54.44		P	21.5
5	☐			73.33		P	32.8
6	☐			153.34		P	12.1
7	☐			337.78		P	12.2
8	☐			96.67		P	26.0

150 Nd [He] No available calibration points

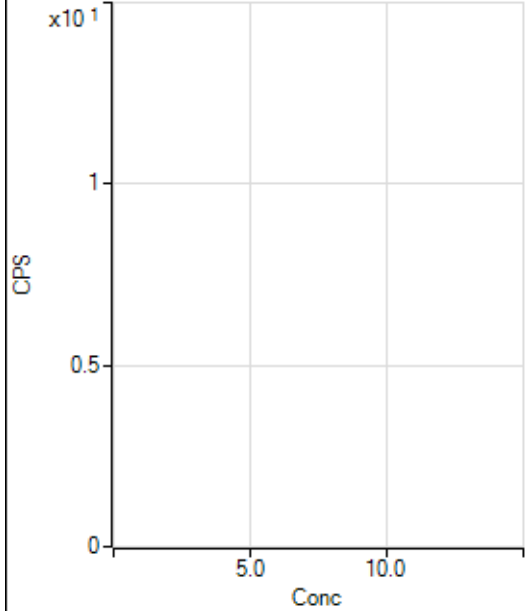
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			1.11		P	173.
2	☐			2.22		P	86.6
3	☐			7.78		P	24.7
4	☐			14.45		P	74.2
5	☐			20.00		P	16.7
6	☐			40.00		P	44.1
7	☐			103.34		P	11.2
8	☐			86.67		P	20.0

156 Dy [No Gas] No available calibration points



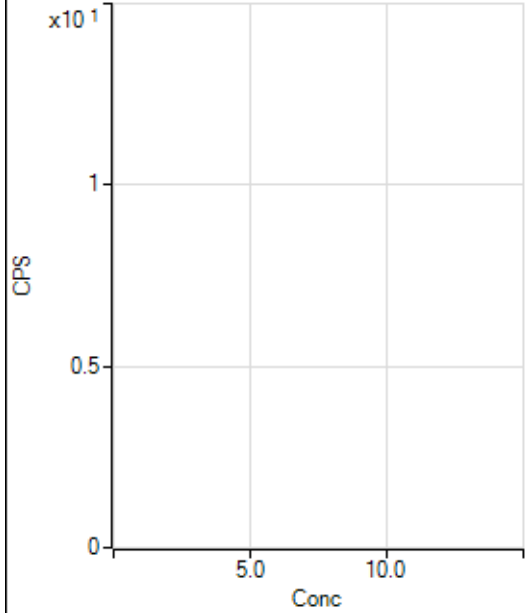
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.44		P	114.
2	☐			7.78		P	107.
3	☐			6.67		P	86.6
4	☐			24.44		P	47.9
5	☐			33.33		P	20.0
6	☐			54.44		P	9.4
7	☐			118.89		P	18.7
8	☐			177.78		P	21.1

156 Dy [He] No available calibration points



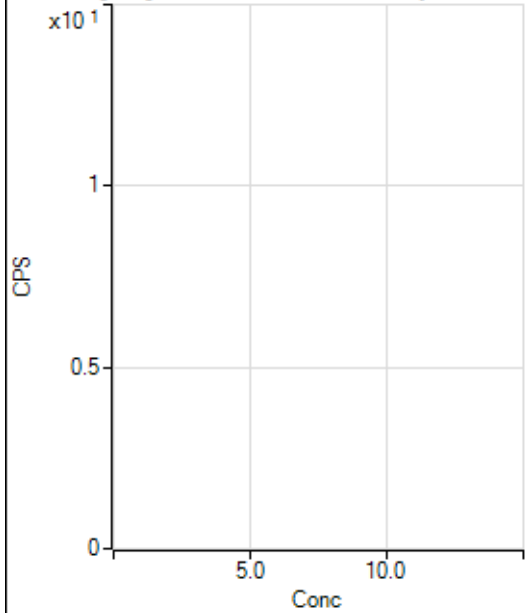
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			4.44		P	114.
2	☐			5.56		P	91.6
3	☐			23.33		P	NaN
4	☐			52.22		P	46.2
5	☐			83.33		P	17.4
6	☐			158.89		P	13.6
7	☐			360.01		P	7.9
8	☐			132.23		P	10.5

160 Gd [No Gas] Noavailable calibration poin...



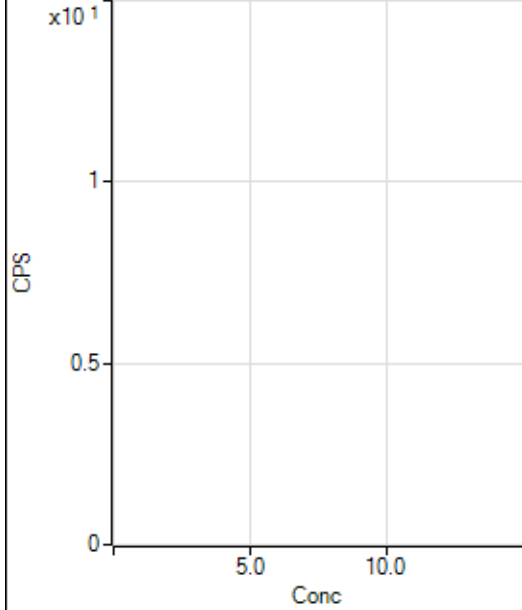
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			26.67		P	37.5
2	☐			21.11		P	9.1
3	☐			23.34		P	49.5
4	☐			28.89		P	17.6
5	☐			40.00		P	14.4
6	☐			54.44		P	27.6
7	☐			102.22		P	13.2
8	☐			191.11		P	9.6

160 Gd [He] No available calibration points



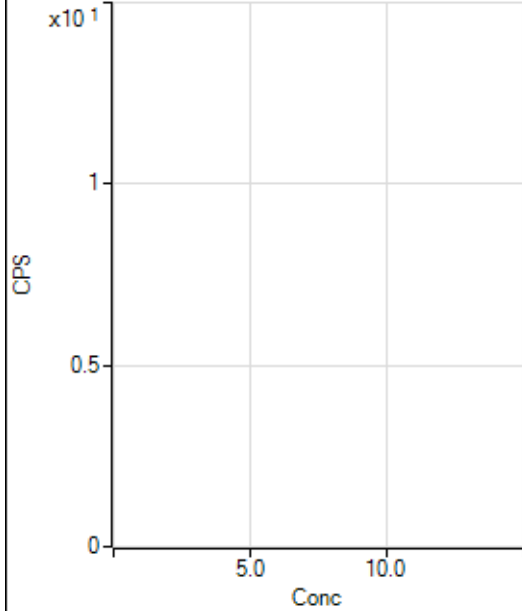
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			276.67		P	14.8
2	☐			270.00		P	20.8
3	☐			267.78		P	8.3
4	☐			280.01		P	19.7
5	☐			253.34		P	16.0
6	☐			304.45		P	10.2
7	☐			301.12		P	0.6
8	☐			403.34		P	6.2

164 Er [No Gas] No available calibration points



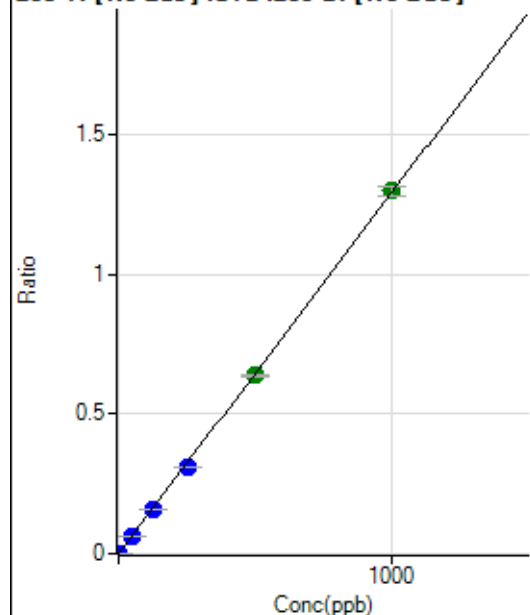
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			42.22		P	52.6
2	☐			41.11		P	28.5
3	☐			57.78		P	14.5
4	☐			52.22		P	32.8
5	☐			66.67		P	8.7
6	☐			95.56		P	22.4
7	☐			113.33		P	23.0
8	☐			245.56		P	19.4

164 Er [He] No available calibration points



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐			34.44		P	34.0
2	☐			37.78		P	22.2
3	☐			34.44		P	55.9
4	☐			38.89		P	21.6
5	☐			53.33		P	49.6
6	☐			63.33		P	13.9
7	☐			113.34		P	23.5
8	☐			180.00		P	11.3

203 TI [No Gas] ISTD :209 Bi [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	56.67	0.0000	P	24.0
2	☐	1.000	1.001	4644.16	0.0013	P	3.5
3	☐	50.000	47.643	222354.70	0.0614	P	0.8
4	☐	125.000	120.357	563863.86	0.1552	P	0.4
5	☐	250.000	239.820	1141915.61	0.3093	P	0.3
6	☐	500.000	494.636	2361314.69	0.6378	A	1.3
7	☐	1000.000	1005.925	4742493.68	1.2971	A	3.0
8	☐			668.91	0.0002	P	11.8

$$y = 0.0013 * x + 1.5820E-005$$

$$R = 0.9999$$

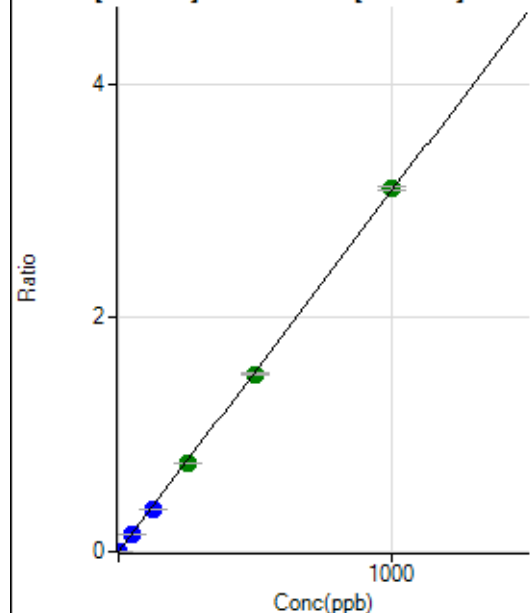
$$DL = 0.008841$$

$$BEC = 0.01227$$

Weight: <None>

Min Conc: 0

205 TI [No Gas] ISTD :209 Bi [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	212.22	0.0001	P	5.9
2	☐	1.000	1.004	11192.47	0.0031	P	3.8
3	☐	50.000	47.034	524199.31	0.1449	P	0.6
4	☐	125.000	118.443	1324982.47	0.3647	P	0.4
5	☐	250.000	243.834	2772271.07	0.7508	A	0.6
6	☐	500.000	491.627	5603772.00	1.5137	A	0.9
7	☐	1000.000	1006.696	11334566.36	3.0994	A	0.9
8	☐			1542.32	0.0004	P	12.8

$$y = 0.0031 * x + 5.9195E-005$$

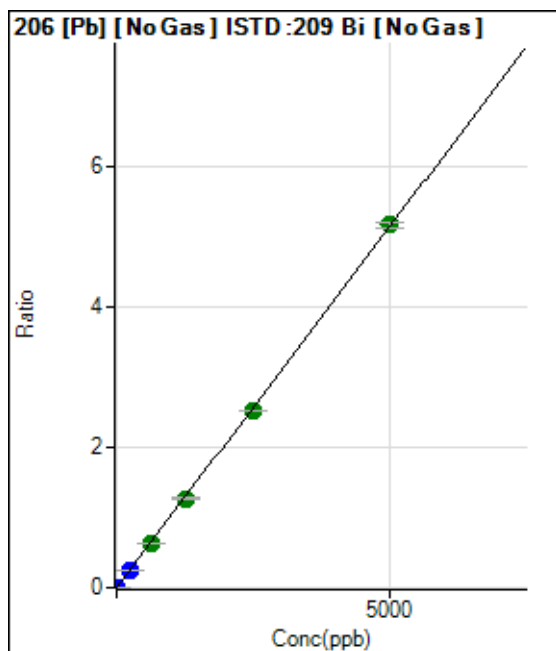
$$R = 0.9999$$

$$DL = 0.0034$$

$$BEC = 0.01923$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	702.25	0.0002	P	13.7
2	☐	1.000	0.991	4309.62	0.0012	P	3.1
3	☐	250.000	239.817	891119.86	0.2463	P	1.5
4	☐	625.000	614.609	2291949.51	0.6309	A	1.9
5	☐	1250.000	1234.716	4679101.08	1.2672	A	1.8
6	☐	2500.000	2454.625	9325726.74	2.5189	A	0.3
7	☐	5000.000	5028.316	18868531.94	5.1599	A	1.3
8	☐			9407.81	0.0025	P	16.7

$$y = 0.0010 * x + 1.9602E-004$$

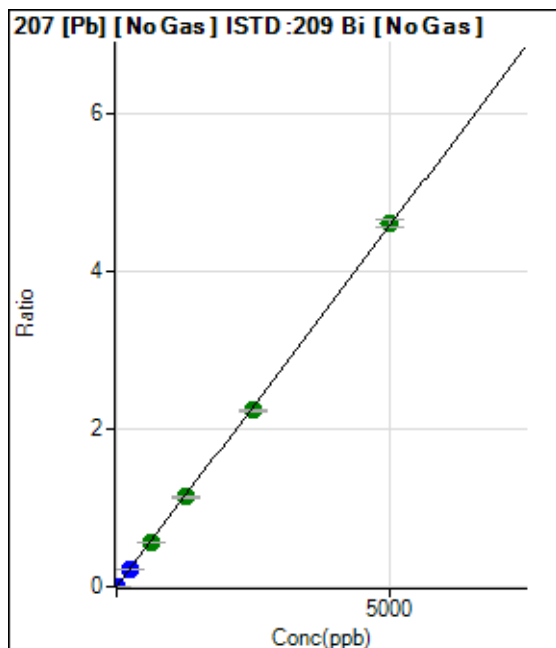
R = 0.9999

DL = 0.07866

BEC = 0.191

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	0.000	0.000	516.68	0.0001	P	3.2
2	☐	1.000	1.028	3849.48	0.0011	P	0.8
3	☐	250.000	236.455	782077.61	0.2161	P	1.4
4	☐	625.000	616.319	2045833.46	0.5631	A	0.7
5	☐	1250.000	1241.422	4187910.49	1.1342	A	1.1
6	☐	2500.000	2444.586	8267536.89	2.2332	A	1.2
7	☐	5000.000	5031.614	16806714.33	4.5964	A	2.0
8	☐			8652.84	0.0023	P	15.6

$$y = 9.1348E-004 * x + 1.4405E-004$$

R = 0.9999

DL = 0.01511

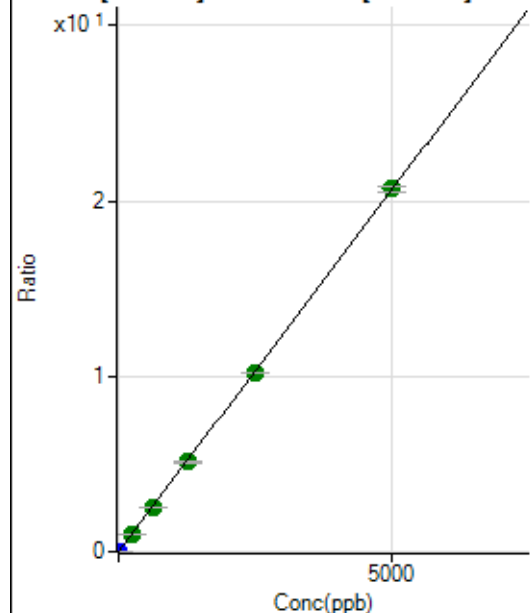
BEC = 0.1577

Weight: <None>

Min Conc: 0

Calibration for 011CAL.S.d

208 Pb [No Gas] ISTD :209 Bi [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	2613.46	0.0007	P	4.5
2	☐	1.000	1.016	17472.37	0.0049	P	2.8
3	☐	250.000	241.947	3610839.13	0.9979	A	1.8
4	☐	625.000	617.511	9248758.94	2.5458	A	0.4
5	☐	1250.000	1240.138	18876421.35	5.1120	A	0.6
6	☐	2500.000	2471.756	37718645.27	10.1882	A	0.6
7	☐	5000.000	5017.926	75630068.18	20.6825	A	1.5
8	☐			38386.01	0.0102	P	15.3

$$y = 0.0041 * x + 7.2901E-004$$

R = 1.0000

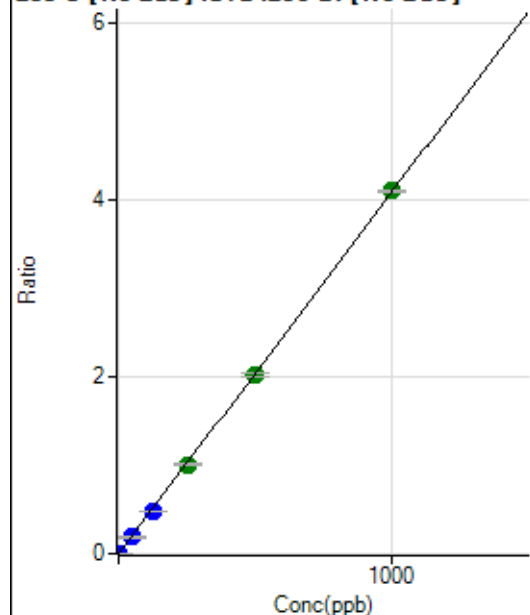
DL = 0.0241

BEC = 0.1769

Weight: <None>

Min Conc: 0

238 U [No Gas] ISTD :209 Bi [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det.	RSD
1	☐	0.000	0.000	12.22	0.0000	P	127.
2	☐	1.000	1.013	14733.82	0.0041	P	0.6
3	☐	50.000	45.289	669780.51	0.1851	P	1.3
4	☐	125.000	115.342	1712626.99	0.4714	P	0.6
5	☐	250.000	245.471	3704731.72	1.0033	A	2.1
6	☐	500.000	495.143	7492090.17	2.0237	A	1.3
7	☐	1000.000	1005.004	15021830.61	4.1076	A	0.7
8	☐			787.81	0.0002	P	16.5

$$y = 0.0041 * x + 3.3740E-006$$

R = 0.9999

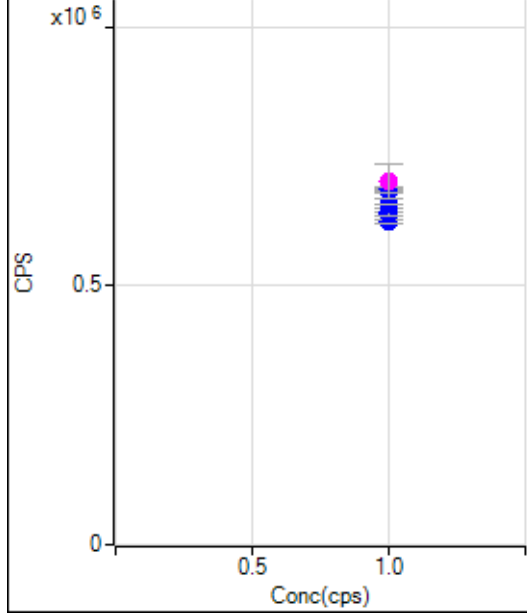
DL = 0.003161

BEC = 0.0008255

Weight: <None>

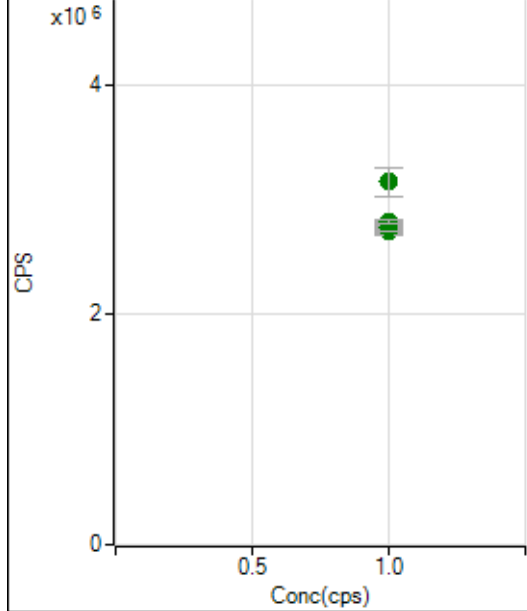
Min Conc: 0

6 Li (ISTD) [No Gas]



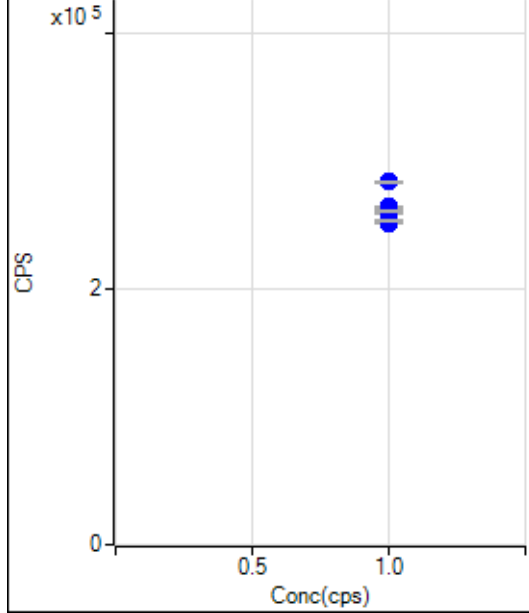
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		624264.85		P	1.7
2	☐	1.000		638245.47		P	1.1
3	☐	1.000		642711.48		P	1.9
4	☐	1.000		657786.30		P	0.3
5	☐	1.000		681966.29		P	0.3
6	☐	1.000		686361.59		P	0.3
7	☐	1.000		685907.85		P	1.7
8	☐	1.000		701157.15		M	9.6

45 Sc (ISTD) [No Gas]



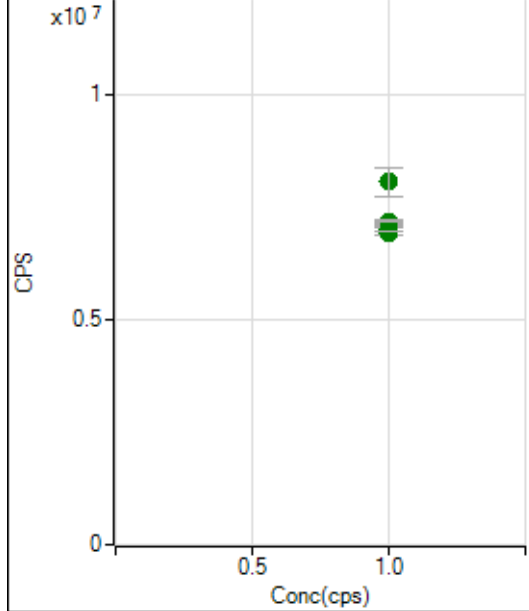
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2762364.91		A	3.4
2	☐	1.000		2750569.79		A	0.1
3	☐	1.000		2733883.75		A	1.0
4	☐	1.000		2788650.51		A	0.7
5	☐	1.000		2719832.41		A	1.9
6	☐	1.000		2759865.79		A	2.0
7	☐	1.000		2808456.94		A	1.1
8	☐	1.000		3153196.65		A	7.7

45 Sc (ISTD) [He]



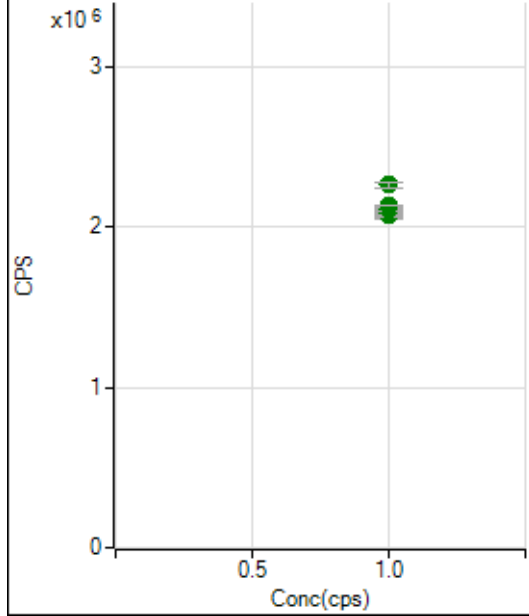
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		263306.40		P	0.6
2	☐	1.000		264104.92		P	0.7
3	☐	1.000		259581.42		P	1.1
4	☐	1.000		259272.32		P	0.3
5	☐	1.000		251219.90		P	0.7
6	☐	1.000		253204.94		P	0.4
7	☐	1.000		260874.40		P	0.8
8	☐	1.000		283418.84		P	0.7

89 Y (ISTD) [No Gas]



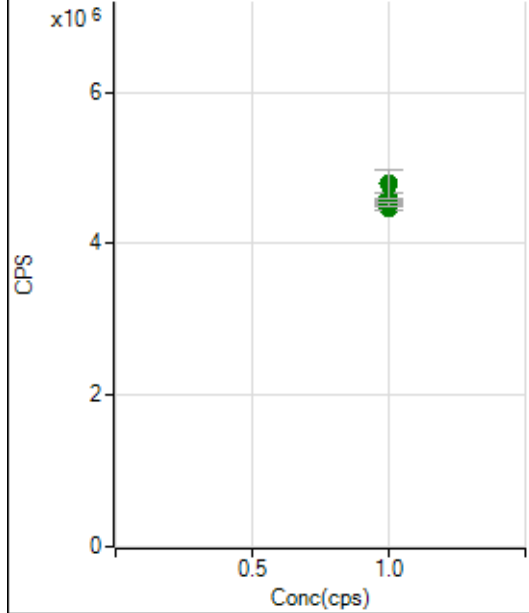
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		7068302.53		A	1.3
2	☐	1.000		7040377.12		A	1.8
3	☐	1.000		6910645.94		A	0.8
4	☐	1.000		7069177.33		A	0.9
5	☐	1.000		6966485.66		A	0.2
6	☐	1.000		7013326.77		A	2.2
7	☐	1.000		7190534.89		A	0.3
8	☐	1.000		8054187.73		A	8.3

89 Y(ISTD) [He]



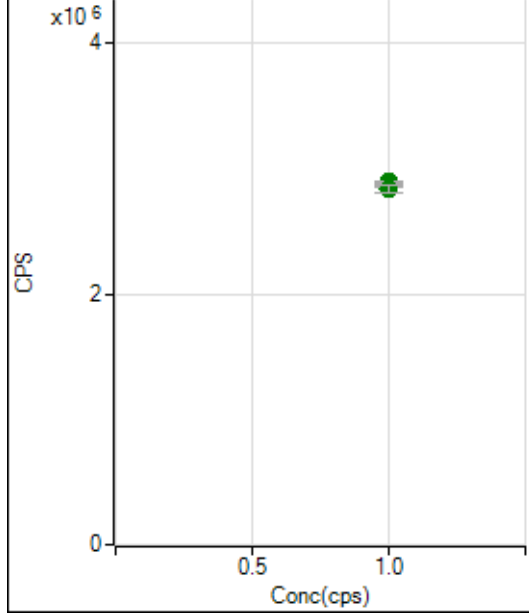
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2069049.85		A	2.4
2	☐	1.000		2087027.14		A	2.1
3	☐	1.000		2077896.36		A	0.8
4	☐	1.000		2087998.16		A	1.9
5	☐	1.000		2069424.26		A	0.2
6	☐	1.000		2111810.96		A	1.5
7	☐	1.000		2136007.57		A	0.2
8	☐	1.000		2262152.45		A	1.8

103 Rh(ISTD) [No Gas]



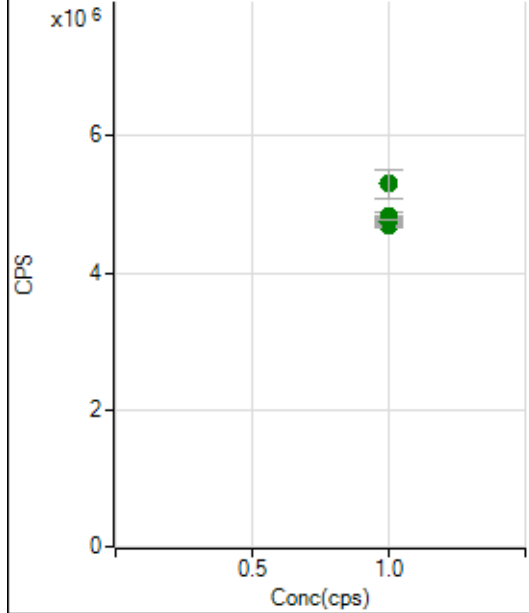
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4631616.74		A	1.2
2	☐	1.000		4556360.35		A	0.8
3	☐	1.000		4565618.30		A	1.0
4	☐	1.000		4567858.27		A	0.7
5	☐	1.000		4520855.14		A	0.3
6	☐	1.000		4473396.01		A	1.2
7	☐	1.000		4525194.62		A	0.9
8	☐	1.000		4789135.76		A	7.7

103 Rh (ISTD) [He]

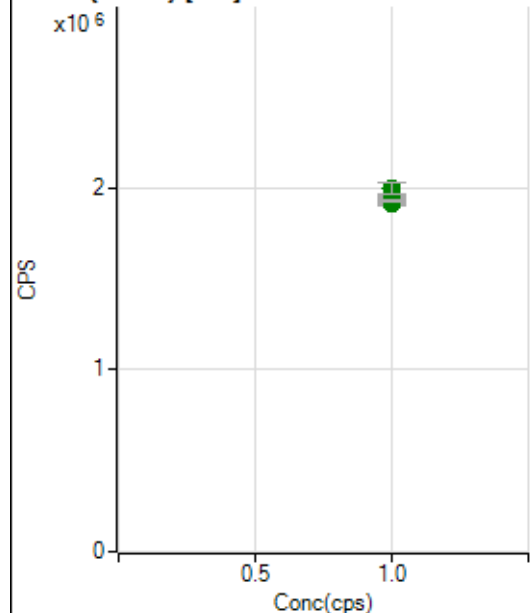


	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		2862402.39		A	0.6
2	☐	1.000		2896737.94		A	0.2
3	☐	1.000		2876262.95		A	0.9
4	☐	1.000		2880906.49		A	1.4
5	☐	1.000		2871408.85		A	0.7
6	☐	1.000		2864940.62		A	0.2
7	☐	1.000		2889667.29		A	0.5
8	☐	1.000		2842348.46		A	2.5

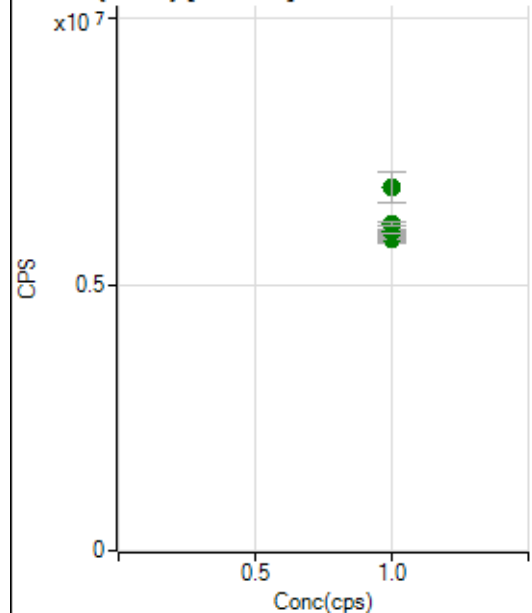
115 In (ISTD) [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4838504.10		A	1.8
2	☐	1.000		4819447.48		A	0.6
3	☐	1.000		4691129.35		A	1.0
4	☐	1.000		4813095.03		A	0.9
5	☐	1.000		4777625.38		A	0.9
6	☐	1.000		4739777.70		A	1.6
7	☐	1.000		4777468.72		A	0.3
8	☐	1.000		5297689.52		A	8.2

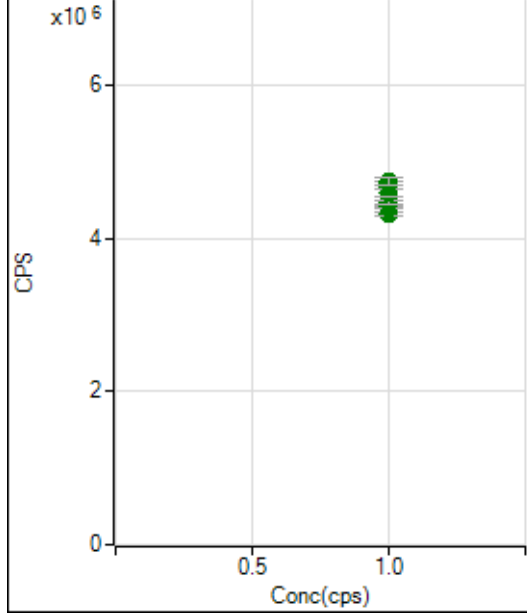
115 In (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		1913072.05		A	1.0
2	☐	1.000		1928094.03		A	0.3
3	☐	1.000		1942865.66		A	2.6
4	☐	1.000		1928094.15		A	0.3
5	☐	1.000		1945967.51		A	0.5
6	☐	1.000		1943675.74		A	0.4
7	☐	1.000		1930489.88		A	0.9
8	☐	1.000		1994213.01		A	3.2

159 Tb (ISTD) [No Gas]

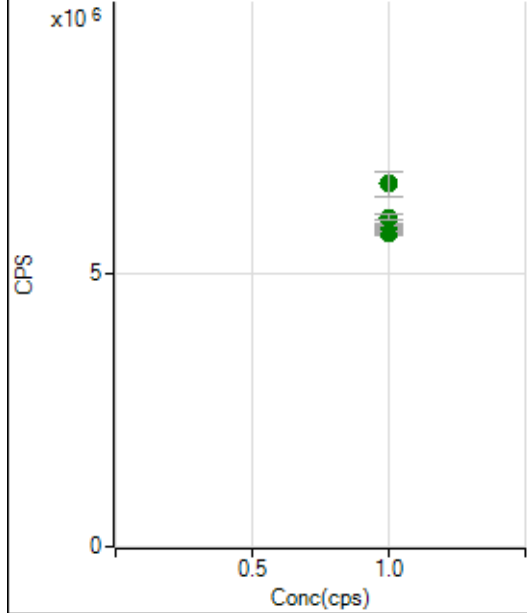
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5885494.08		A	2.0
2	☐	1.000		5907757.27		A	1.2
3	☐	1.000		5839196.16		A	1.4
4	☐	1.000		5876443.53		A	0.7
5	☐	1.000		5996397.41		A	0.4
6	☐	1.000		5995245.60		A	1.5
7	☐	1.000		6139540.60		A	1.1
8	☐	1.000		6820557.47		A	8.5

159 Tb (ISTD) [He]



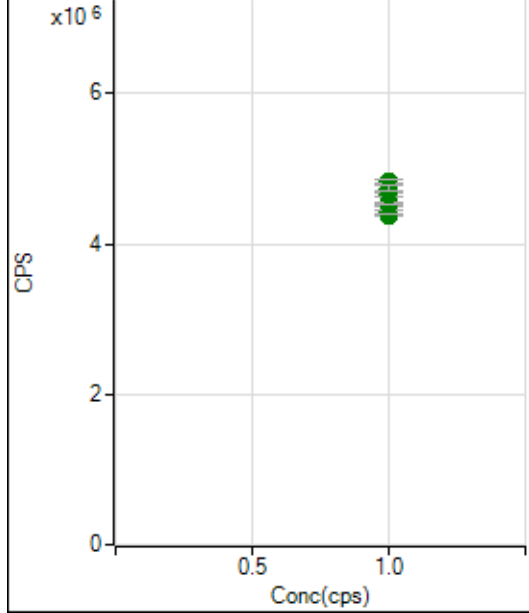
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4318109.07		A	1.2
2	☐	1.000		4405879.03		A	1.0
3	☐	1.000		4422465.39		A	0.9
4	☐	1.000		4473595.14		A	0.7
5	☐	1.000		4597623.47		A	1.8
6	☐	1.000		4675691.94		A	0.8
7	☐	1.000		4728580.52		A	1.3
8	☐	1.000		4737906.46		A	2.1

165 Ho (ISTD) [No Gas]



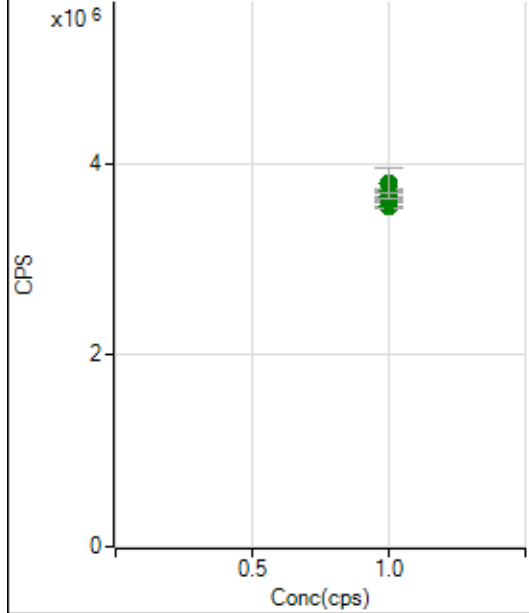
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		5807879.64		A	1.7
2	☐	1.000		5722058.04		A	0.8
3	☐	1.000		5723824.43		A	0.4
4	☐	1.000		5796086.03		A	1.3
5	☐	1.000		5772721.16		A	0.8
6	☐	1.000		5878419.15		A	1.0
7	☐	1.000		6011624.98		A	1.8
8	☐	1.000		6627594.90		A	7.2

165 Ho (ISTD) [He]

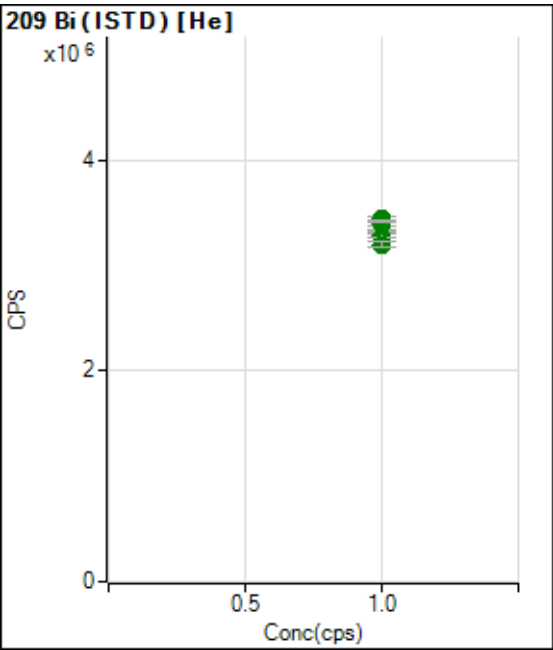


	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		4383949.83		A	0.2
2	☐	1.000		4416623.79		A	1.0
3	☐	1.000		4535341.81		A	1.0
4	☐	1.000		4546607.99		A	0.7
5	☐	1.000		4650298.02		A	0.9
6	☐	1.000		4703960.38		A	0.1
7	☐	1.000		4824387.67		A	1.1
8	☐	1.000		4738966.35		A	1.3

209 Bi (ISTD) [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1	☐	1.000		3586628.97		A	1.9
2	☐	1.000		3555494.29		A	1.7
3	☐	1.000		3618526.89		A	0.5
4	☐	1.000		3632845.57		A	0.5
5	☐	1.000		3692534.32		A	0.5
6	☐	1.000		3702309.04		A	1.1
7	☐	1.000		3657375.92		A	1.8
8	☐	1.000		3783788.03		A	8.6



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	Det .	RSD
1		1.000		3281809.53		A	0.8
2		1.000		3290418.77		A	1.4
3		1.000		3369552.94		A	2.1
4		1.000		3393327.14		A	0.7
5		1.000		3442124.39		A	1.5
6		1.000		3423865.30		A	0.8
7		1.000		3413806.20		A	0.5
8		1.000		3200309.71		A	1.6

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US EPA Tune Check Report

Reviewed By:moh
On:4/9/2025 11:59
AM
Inst Id :P7
LB :LB135315

Operator Name Jaswal
Acq/Data Batch D:\Agilent\ICPMH\1\DATA\P7040425MS.b
Acq. Date-Time 2025-04-04 12:51:02
Report Comment ---
Instrument Name G8403A JP14410463

[No Gas]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
9		6602	66016.09			0.865	5.000
24		80017	800173.55			0.759	5.000
25		10150	101497.17			0.821	5.000
26		11447	114472.12			1.058	5.000
59		44549	445488.35			0.258	5.000
113		6316	63156.54			0.206	5.000
115		75148	751479.57			0.590	5.000
206		14463	144630.74			0.577	5.000
207		12377	123774.18			0.400	5.000
208		29914	299136.18			0.632	5.000
220		0	3.90			21.066	

Mass	RSD% (Flag)
9	
24	
25	
26	
59	
113	
115	
206	
207	
208	
220	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
9	6565	6533	6610	6618	6683
24	79430	79608	80885	80400	79763
25	10084	10057	10166	10269	10173
26	11310	11319	11545	11540	11522
59	44485	44697	44627	44529	44407
113	6334	6312	6321	6298	6313
115	75711	75445	74849	75126	74608
206	14588	14393	14510	14410	14415
207	12415	12343	12351	12445	12333
208	30088	29692	30076	29979	29733

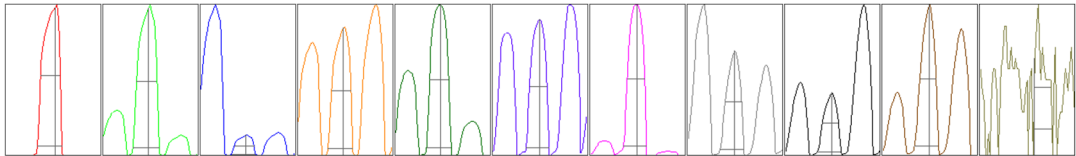
US EPA Tune Check Report

Reviewed By:moh
On:4/9/2025 11:59
AM
Inst Id :P7
LB :LB135315

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
220	0	0	0	0	1

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	11094.98	9.10	8.90 - 9.10	
24	129252.77	23.95	23.90 - 24.10	
25	17009.86	24.95	24.90 - 25.10	
26	19376.41	25.95	25.90 - 26.10	
59	76410.54	58.95	58.90 - 59.10	
113	11991.72	113.00	112.90 - 113.10	
115	140537.06	115.00	114.90 - 115.10	
206	29092.83	206.00	205.90 - 206.10	
207	25282.66	207.00	206.90 - 207.10	
208	60333.38	208.00	207.90 - 208.10	
220	0.45	220.25	-	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.62	0.774	0.900	
24	0.66	0.831	0.900	
25	0.63	0.745	0.900	
26	0.63	0.783	0.900	
59	0.61	0.782	0.900	
113	0.54	0.727	0.900	
115	0.54	0.736	0.900	
206	0.51	0.756	0.900	
207	0.51	0.754	0.900	
208	0.51	0.768	0.900	
220	0.52	0.570		

Integration Time [sec] 0.1
Acquisition Time [sec] 256.770000000002
Y Axis Linear

Tune Parameters

Plasma Parameters

Plasma Mode --- Nebulizer Gas 0.87 L/min Dilution Gas 0.40 L/min

US EPA Tune Check Report

Reviewed By:moh
On:4/9/2025 11:59
AM
Inst Id :P7
LB :LB135315

RF Power 1600 W Option Gas --- Auxiliary Gas 0.90
RF Matching 1.80 V Nebulizer Pump 0.10 rps Plasma Gas 15.0
Sample Depth 8.8 mm S/C Temp 2 °C

Lens Parameters

Extract 1 0.0 V Omega Lens 8.4 V Deflect 15.8 V
Extract 2 -130.0 V Cell Entrance -30 V Plate Bias -35 V
Omega Bias -50 V Cell Exit -50 V

Cell Parameters

Use Gas No 3rd Gas Flow --- Energy Discrimination 5.0 V
He Flow 0.0 mL/min OctP Bias -8.0 V
H2 Flow --- OctP RF 170 V

QP Parameters

Mass Gain 139 Axis Gain 0.9976 QP Bias -3.0 V
Mass Offset 129 Axis Offset 0.12

Hardware Settings

Torch

Torch H -0.1 mm Torch V 0.4 mm

EM

Discriminator 4.7 mV Analog HV 2319 V Pulse HV 1152 V

[He]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
59		15195	151951.51			0.534	
89		50529	505292.27			0.709	
205		16946	169455.12			0.733	

Mass	RSD% (Flag)
59	
89	
205	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
59	15276	15246	15170	15216	15068
89	50908	50934	50267	50243	50294
205	17114	17001	16954	16790	16869

Integration Time [sec] 0.1

Tune Parameters

Plasma Parameters

Plasma Mode --- Nebulizer Gas 0.87 L/min Dilution Gas 0.40 L/min
RF Power 1600 W Option Gas --- Auxiliary Gas 0.90 L/min
RF Matching 1.80 V Nebulizer Pump 0.10 rps Plasma Gas 15.0 L/min
Sample Depth 8.8 mm S/C Temp 2 °C

Lens Parameters

Extract 1 0.0 V Omega Lens 9.8 V Deflect 4.0 V

US EPA Tune Check Report

Reviewed By:moh
On:4/9/2025 11:59
AM
Inst Id :P7
LB :LB135315

Extract 2	-165.0 V	Cell Entrance	-40 V	Plate Bias	-60 V
Omega Bias	-80 V	Cell Exit	-60 V		
Cell Parameters					
Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	3.9 mL/min	OctP Bias	-18.0 V		
H2 Flow	---	OctP RF	200 V		
QP Parameters					
Mass Gain	139	Axis Gain	0.9976	QP Bias	-13.0 V
Mass Offset	129	Axis Offset	0.12		
Hardware Settings					
Torch					
Torch H	-0.1 mm	Torch V	0.4 mm		
EM					
Discriminator	4.7 mV	Analog HV	2319 V	Pulse HV	1152 V

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S0 Instrumnet Name : P7
Client Sample ID : S0 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:09:04 DataFile Name : 005CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.23	-0.10	-0.13	0.00	N/A	ppb
Antimony	121-1	0.01	0.00	0.00	0.00	N/A	ppb
Arsenic	75-2	-0.02	0.00	0.02	0.00	N/A	ppb
Barium	135-1	0.01	0.00	0.00	0.00	N/A	ppb
Barium	137-1	0.00	0.00	0.00	0.00	N/A	ppb
Beryllium	9-1	0.01	-0.01	0.00	0.00	N/A	ppb
Bismuth	209-1				100		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.11	0.00	0.11	0.00	N/A	ppb
Cadmium	106-1	-0.16	0.67	-0.51	0.00	N/A	ppb
Cadmium	111-1	-0.01	0.04	-0.04	0.00	N/A	ppb
Calcium	43-1	0.51	0.78	-1.29	0.00	N/A	ppb
Calcium	44-1	-1.90	-0.07	1.97	0.00	N/A	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.02	-0.02	0.05	0.00	N/A	ppb
Cobalt	59-2	0.00	0.00	0.00	0.00	N/A	ppb
Copper	63-2	-0.01	0.01	0.00	0.00	N/A	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				100		%
Holmium	165-2				100		%
Indium	115-1				100		%
Indium	115-2				100		%
Iron	56-2	-0.04	-0.08	0.12	0.00	N/A	ppb
Iron	57-2	-0.06	0.41	-0.35	0.00	N/A	ppb
Iron	54-2	1.01	-1.54	0.53	0.00	N/A	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S0 Instrumnet Name : P7
Client Sample ID : S0 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:09:04 DataFile Name : 005CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	-0.03	0.02	0.01	0.00	N/A	ppb
Lead	207-1	0.00	-0.01	0.00	0.00	N/A	ppb
Lead	208-1	-0.01	0.00	0.01	0.00	N/A	ppb
Lithium	6-1				100		%
Magnesium	24-2	-0.06	0.04	0.02	0.00	N/A	ppb
Manganese	55-2	0.04	-0.04	0.00	0.00	N/A	ppb
Molybdenum	94-1	0.00	0.00	0.00	0.00	N/A	ppb
Molybdenum	95-1	0.00	0.00	0.00	0.00	N/A	ppb
Molybdenum	96-1	0.01	-0.01	0.00	0.00	N/A	ppb
Molybdenum	97-1	0.00	0.00	0.00	0.00	N/A	ppb
Molybdenum	98-1	0.00	0.00	0.00	0.00	N/A	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.04	-0.01	-0.03	0.00	N/A	ppb
Phosphorus	31-2	-25.04	-23.20	-19.20	-22.48		ppb
Potassium	39-2	1.60	-0.54	-1.06	0.00	N/A	ppb
Rhodium	103-1				100		%
Rhodium	103-2				100		%
Scandium	45-1				100		%
Scandium	45-2				100		%
Selenium	82-1	0.16	-0.36	0.20	0.00	N/A	ppb
Selenium	77-2	0.00	0.00	0.00	0.00	N/A	ppb
Selenium	78-2	-0.84	0.18	0.66	0.00	N/A	ppb
Silicon	28-1	-3.72	2.55	1.17	0.00	N/A	ppb
Silver	107-1	0.00	0.00	0.00	0.00	N/A	ppb
Silver	109-1	0.00	0.00	0.00	0.00	N/A	ppb
Sodium	23-2	0.00	0.24	-0.24	0.00	N/A	ppb
Strontium	86-1	0.03	-0.01	-0.02	0.00	N/A	ppb
Strontium	88-1	0.00	0.00	0.00	0.00	N/A	ppb
Sulfur	34-1	-340.64	121.90	87.37	-43.79		ppb
Terbium	159-1				100		%
Terbium	159-2				100		%
Thallium	203-1	0.00	0.00	0.00	0.00	N/A	ppb
Thallium	205-1	0.00	0.00	0.00	0.00	N/A	ppb
Tin	118-1	-0.01	0.01	0.00	0.00	N/A	ppb
Titanium	47-1	-0.02	-0.01	0.02	0.00	N/A	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S0 Instrumnet Name : P7
Client Sample ID : S0 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:09:04 DataFile Name : 005CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00	N/A	ppb
Vanadium	51-2	0.00	0.00	0.00	0.00	N/A	ppb
Yttrium	89-1				100		%
Yttrium	89-2				100		%
Zinc	66-2	-0.01	-0.03	0.04	0.00	N/A	ppb
Zirconium	90-1	0.00	0.00	0.00	0.00	N/A	ppb
Zirconium	91-1	-0.02	-0.01	0.02	0.00	N/A	ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S2 Instrumnet Name : P7
Client Sample ID : S2 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:15:42 DataFile Name : 007CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	21.50	22.64	20.75	21.63	4.40	ppb
Antimony	121-1	2.25	2.18	2.19	2.21	1.86	ppb
Arsenic	75-2	1.28	1.13	1.18	1.20	6.20	ppb
Barium	135-1	10.63	10.65	10.06	10.45	3.23	ppb
Barium	137-1	10.78	10.55	10.63	10.65	1.12	ppb
Beryllium	9-1	1.02	1.12	1.12	1.09	5.27	ppb
Bismuth	209-1				99		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.95	0.96	1.13	1.01	9.94	ppb
Cadmium	106-1	1.57	1.51	0.60	1.23	44.14	ppb
Cadmium	111-1	1.18	1.23	1.10	1.17	5.59	ppb
Calcium	43-1	637.33	646.55	630.62	638.16	1.25	ppb
Calcium	44-1	632.36	643.40	626.73	634.16	1.34	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.21	2.24	2.18	2.21	1.36	ppb
Cobalt	59-2	1.19	1.19	1.11	1.16	3.95	ppb
Copper	63-2	2.11	2.21	2.07	2.13	3.34	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				99		%
Holmium	165-2				101		%
Indium	115-1				100		%
Indium	115-2				101		%
Iron	56-2	59.18	60.82	58.54	59.52	1.98	ppb
Iron	57-2	63.97	62.87	63.43	63.43	0.87	ppb
Iron	54-2	58.84	60.33	63.43	60.87	3.85	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S2 Instrumnet Name : P7
Client Sample ID : S2 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:15:42 DataFile Name : 007CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.97	0.97	1.03	0.99	3.67	ppb
Lead	207-1	1.02	1.03	1.04	1.03	0.96	ppb
Lead	208-1	1.00	0.99	1.05	1.02	3.34	ppb
Lithium	6-1				102		%
Magnesium	24-2	549.39	557.66	546.84	551.29	1.03	ppb
Manganese	55-2	1.03	0.93	1.01	0.99	4.93	ppb
Molybdenum	94-1	6.45	6.16	6.47	6.36	2.68	ppb
Molybdenum	95-1	5.35	5.40	5.31	5.35	0.81	ppb
Molybdenum	96-1	5.63	5.40	5.51	5.51	2.16	ppb
Molybdenum	97-1	5.30	5.39	5.32	5.34	0.95	ppb
Molybdenum	98-1	5.47	5.30	5.61	5.46	2.80	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.99	1.13	0.96	1.03	8.99	ppb
Phosphorus	31-2	24.91	15.18	27.34	22.48	28.64	ppb
Potassium	39-2	567.31	569.87	569.54	568.91	0.24	ppb
Rhodium	103-1				98		%
Rhodium	103-2				101		%
Scandium	45-1				100		%
Scandium	45-2				100		%
Selenium	82-1	5.80	6.40	5.81	6.00	5.77	ppb
Selenium	77-2	5.84	5.64	5.41	5.63	3.79	ppb
Selenium	78-2	7.68	4.75	7.34	6.59	24.34	ppb
Silicon	28-1	0.33	0.28	-0.01	0.20	92.19	ppb
Silver	107-1	1.08	1.12	1.13	1.11	2.63	ppb
Silver	109-1	1.10	1.12	1.15	1.12	2.03	ppb
Sodium	23-2	548.86	562.28	555.14	555.43	1.21	ppb
Strontium	86-1	1.05	1.10	1.11	1.09	2.78	ppb
Strontium	88-1	1.11	1.09	1.12	1.11	1.43	ppb
Sulfur	34-1	27.03	82.63	21.70	43.79	77.07	ppb
Terbium	159-1				100		%
Terbium	159-2				102		%
Thallium	203-1	0.97	1.04	1.00	1.00	3.53	ppb
Thallium	205-1	0.96	1.01	1.04	1.00	3.83	ppb
Tin	118-1	5.79	5.66	5.72	5.72	1.16	ppb
Titanium	47-1	5.21	5.47	5.47	5.38	2.82	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S2 Instrumnet Name : P7
Client Sample ID : S2 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:15:42 DataFile Name : 007CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	1.02	1.01	1.01	1.01	0.57	ppb
Vanadium	51-2	5.38	5.25	5.24	5.29	1.49	ppb
Yttrium	89-1				100		%
Yttrium	89-2				101		%
Zinc	66-2	5.10	5.25	5.11	5.16	1.64	ppb
Zirconium	90-1	1.07	1.00	1.07	1.05	3.78	ppb
Zirconium	91-1	0.98	1.01	1.04	1.01	2.90	ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S3 Instrumnet Name : P7
Client Sample ID : S3 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:19:02 DataFile Name : 008CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1022.11	1036.34	1044.82	1034.42	1.11	ppb
Antimony	121-1	51.89	50.89	51.97	51.58	1.16	ppb
Arsenic	75-2	51.02	51.38	51.41	51.27	0.43	ppb
Barium	135-1	250.39	248.07	249.87	249.44	0.49	ppb
Barium	137-1	252.58	251.12	253.15	252.28	0.42	ppb
Beryllium	9-1	53.53	52.41	53.73	53.22	1.34	ppb
Bismuth	209-1				101		%
Bismuth	209-2				103		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	51.10	53.48	52.15	52.24	2.28	ppb
Cadmium	106-1	53.93	51.78	52.49	52.73	2.07	ppb
Cadmium	111-1	52.53	52.11	52.64	52.43	0.53	ppb
Calcium	43-1	6059.77	5915.82	6110.40	6028.66	1.67	ppb
Calcium	44-1	5865.08	5807.16	5901.08	5857.77	0.81	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	51.50	51.74	51.62	51.62	0.23	ppb
Cobalt	59-2	50.60	51.31	51.41	51.11	0.86	ppb
Copper	63-2	511.00	517.27	515.80	514.69	0.64	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				99		%
Holmium	165-2				103		%
Indium	115-1				97		%
Indium	115-2				102		%
Iron	56-2	2611.44	2662.67	2624.52	2632.88	1.01	ppb
Iron	57-2	2746.40	2756.17	2774.56	2759.04	0.52	ppb
Iron	54-2	2763.15	2814.44	2773.93	2783.84	0.97	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S3 Instrumnet Name : P7
Client Sample ID : S3 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:19:02 DataFile Name : 008CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	236.97	243.76	238.72	239.82	1.47	ppb
Lead	207-1	233.86	240.11	235.40	236.46	1.38	ppb
Lead	208-1	238.39	246.83	240.63	241.95	1.81	ppb
Lithium	6-1				103		%
Magnesium	24-2	5130.03	5166.78	5211.27	5169.36	0.79	ppb
Manganese	55-2	506.77	509.98	506.16	507.64	0.40	ppb
Molybdenum	94-1	508.49	502.77	507.93	506.40	0.62	ppb
Molybdenum	95-1	508.12	503.76	501.26	504.38	0.69	ppb
Molybdenum	96-1	510.15	506.34	506.76	507.75	0.41	ppb
Molybdenum	97-1	512.29	514.85	511.69	512.94	0.33	ppb
Molybdenum	98-1	500.30	513.03	489.90	501.08	2.31	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	51.40	52.84	53.12	52.45	1.75	ppb
Phosphorus	31-2	1076.36	1036.05	1034.96	1049.12	2.25	ppb
Potassium	39-2	2673.34	2681.05	2691.96	2682.12	0.35	ppb
Rhodium	103-1				99		%
Rhodium	103-2				100		%
Scandium	45-1				99		%
Scandium	45-2				99		%
Selenium	82-1	53.59	52.13	53.95	53.22	1.81	ppb
Selenium	77-2	61.65	57.82	51.08	56.85	9.41	ppb
Selenium	78-2	51.61	54.39	55.01	53.67	3.38	ppb
Silicon	28-1	48.46	45.15	45.59	46.40	3.88	ppb
Silver	107-1	53.53	52.46	53.68	53.22	1.25	ppb
Silver	109-1	53.04	52.46	53.57	53.03	1.04	ppb
Sodium	23-2	5303.30	5376.43	5380.07	5353.26	0.81	ppb
Strontium	86-1	50.70	51.11	50.40	50.74	0.71	ppb
Strontium	88-1	51.17	50.99	51.35	51.17	0.35	ppb
Sulfur	34-1	1248.59	1065.72	1101.42	1138.58	8.51	ppb
Terbium	159-1				99		%
Terbium	159-2				102		%
Thallium	203-1	47.67	48.03	47.23	47.64	0.85	ppb
Thallium	205-1	46.94	47.37	46.80	47.03	0.63	ppb
Tin	118-1	51.47	50.31	51.98	51.26	1.67	ppb
Titanium	47-1	505.77	498.93	509.65	504.79	1.08	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S3 Instrumnet Name : P7
Client Sample ID : S3 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:19:02 DataFile Name : 008CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	44.61	45.62	45.65	45.29	1.31	ppb
Vanadium	51-2	50.43	50.13	50.96	50.51	0.83	ppb
Yttrium	89-1				98		%
Yttrium	89-2				100		%
Zinc	66-2	540.35	545.01	545.12	543.49	0.50	ppb
Zirconium	90-1	50.52	50.91	50.53	50.65	0.44	ppb
Zirconium	91-1	50.75	50.74	51.11	50.87	0.42	ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S4 Instrumnet Name : P7
Client Sample ID : S4 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:22:15 DataFile Name : 009CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	2539.85	2563.91	2516.50	2540.08	0.93	ppb
Antimony	121-1	128.55	128.76	127.12	128.14	0.70	ppb
Arsenic	75-2	125.40	131.47	127.52	128.13	2.40	ppb
Barium	135-1	620.61	623.25	624.15	622.67	0.30	ppb
Barium	137-1	629.61	631.90	628.21	629.91	0.30	ppb
Beryllium	9-1	131.27	132.41	132.55	132.08	0.53	ppb
Bismuth	209-1				101		%
Bismuth	209-2				103		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	128.00	131.20	127.93	129.04	1.45	ppb
Cadmium	106-1	130.96	130.07	132.04	131.02	0.75	ppb
Cadmium	111-1	131.24	132.01	132.10	131.78	0.36	ppb
Calcium	43-1	14761.35	14713.57	14732.39	14735.77	0.16	ppb
Calcium	44-1	13901.16	13753.30	13926.99	13860.48	0.68	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	127.18	128.17	126.82	127.39	0.55	ppb
Cobalt	59-2	126.41	126.93	126.09	126.47	0.34	ppb
Copper	63-2	1287.10	1284.90	1256.19	1276.06	1.35	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				100		%
Holmium	165-2				104		%
Indium	115-1				99		%
Indium	115-2				101		%
Iron	56-2	6553.07	6560.42	6456.87	6523.45	0.89	ppb
Iron	57-2	6802.44	6856.23	6767.50	6808.72	0.66	ppb
Iron	54-2	6905.22	6902.18	6821.11	6876.17	0.69	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S4 Instrumnet Name : P7
Client Sample ID : S4 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:22:15 DataFile Name : 009CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	606.84	609.13	627.85	614.61	1.88	ppb
Lead	207-1	612.20	616.44	620.32	616.32	0.66	ppb
Lead	208-1	614.98	617.48	620.07	617.51	0.41	ppb
Lithium	6-1				105		%
Magnesium	24-2	12894.81	13091.78	12813.79	12933.46	1.11	ppb
Manganese	55-2	1234.61	1263.72	1230.82	1243.05	1.45	ppb
Molybdenum	94-1	1267.81	1253.21	1240.27	1253.77	1.10	ppb
Molybdenum	95-1	1268.01	1253.51	1212.44	1244.65	2.32	ppb
Molybdenum	96-1	1268.67	1253.18	1245.69	1255.85	0.93	ppb
Molybdenum	97-1	1263.18	1241.07	1239.18	1247.81	1.07	ppb
Molybdenum	98-1	1247.12	1231.77	1230.12	1236.34	0.76	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	127.47	129.80	127.85	128.38	0.97	ppb
Phosphorus	31-2	2550.00	2497.82	2518.51	2522.11	1.04	ppb
Potassium	39-2	6393.58	6326.42	6242.45	6320.82	1.20	ppb
Rhodium	103-1				99		%
Rhodium	103-2				101		%
Scandium	45-1				101		%
Scandium	45-2				98		%
Selenium	82-1	134.09	131.95	129.19	131.75	1.86	ppb
Selenium	77-2	129.90	131.64	131.19	130.91	0.69	ppb
Selenium	78-2	124.04	129.67	131.30	128.34	2.97	ppb
Silicon	28-1	133.42	130.76	134.40	132.86	1.42	ppb
Silver	107-1	133.57	132.85	133.64	133.35	0.33	ppb
Silver	109-1	134.16	132.70	131.30	132.72	1.07	ppb
Sodium	23-2	13026.71	13133.69	13019.76	13060.05	0.49	ppb
Strontium	86-1	125.32	125.72	123.34	124.79	1.02	ppb
Strontium	88-1	123.85	125.18	122.99	124.01	0.89	ppb
Sulfur	34-1	2617.12	2553.34	2540.93	2570.47	1.59	ppb
Terbium	159-1				100		%
Terbium	159-2				104		%
Thallium	203-1	119.83	120.45	120.79	120.36	0.40	ppb
Thallium	205-1	118.20	118.20	118.93	118.44	0.36	ppb
Tin	118-1	127.80	128.65	128.17	128.20	0.33	ppb
Titanium	47-1	1250.26	1245.14	1236.74	1244.05	0.55	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S4 Instrumnet Name : P7
Client Sample ID : S4 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:22:15 DataFile Name : 009CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	115.03	114.84	116.16	115.34	0.62	ppb
Vanadium	51-2	125.97	125.76	125.79	125.84	0.09	ppb
Yttrium	89-1				100		%
Yttrium	89-2				101		%
Zinc	66-2	1313.21	1313.67	1294.01	1306.96	0.86	ppb
Zirconium	90-1	126.22	126.15	123.73	125.37	1.13	ppb
Zirconium	91-1	126.31	126.14	123.57	125.34	1.22	ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S5 Instrumnet Name : P7
Client Sample ID : S5 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:25:20 DataFile Name : 010CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	5153.36	5076.30	5081.65	5103.77	0.84	ppb
Antimony	121-1	250.37	254.06	252.24	252.22	0.73	ppb
Arsenic	75-2	255.73	255.63	253.71	255.02	0.45	ppb
Barium	135-1	1225.68	1233.64	1239.65	1232.99	0.57	ppb
Barium	137-1	1242.78	1250.50	1265.12	1252.80	0.91	ppb
Beryllium	9-1	257.29	259.88	262.58	259.92	1.02	ppb
Bismuth	209-1				103		%
Bismuth	209-2				105		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	250.45	260.02	262.12	257.53	2.42	ppb
Cadmium	106-1	264.45	260.20	255.54	260.07	1.71	ppb
Cadmium	111-1	260.37	262.01	257.61	260.00	0.86	ppb
Calcium	43-1	29960.16	30911.60	29728.44	30200.07	2.08	ppb
Calcium	44-1	27815.71	29437.05	27726.03	28326.26	3.40	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	259.29	258.24	256.94	258.16	0.46	ppb
Cobalt	59-2	256.71	254.49	254.26	255.16	0.53	ppb
Copper	63-2	2619.35	2526.27	2597.11	2580.91	1.88	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				99		%
Holmium	165-2				106		%
Indium	115-1				99		%
Indium	115-2				102		%
Iron	56-2	13431.68	13210.17	13417.12	13352.99	0.93	ppb
Iron	57-2	13810.57	13860.27	13943.90	13871.58	0.49	ppb
Iron	54-2	13459.73	13886.47	13894.63	13746.95	1.81	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S5 Instrumnet Name : P7
Client Sample ID : S5 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:25:20 DataFile Name : 010CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	1208.95	1246.29	1248.91	1234.72	1.81	ppb
Lead	207-1	1225.67	1251.52	1247.08	1241.42	1.11	ppb
Lead	208-1	1231.93	1244.65	1243.84	1240.14	0.57	ppb
Lithium	6-1				109		%
Magnesium	24-2	25959.93	25753.84	25837.86	25850.55	0.40	ppb
Manganese	55-2	2515.81	2519.41	2566.95	2534.05	1.13	ppb
Molybdenum	94-1	2539.26	2559.85	2535.37	2544.83	0.52	ppb
Molybdenum	95-1	2527.89	2524.01	2514.31	2522.07	0.28	ppb
Molybdenum	96-1	2543.99	2581.04	2535.68	2553.57	0.95	ppb
Molybdenum	97-1	2525.96	2557.85	2550.49	2544.77	0.66	ppb
Molybdenum	98-1	2530.30	2542.27	2583.94	2552.17	1.10	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	259.90	257.46	257.62	258.33	0.53	ppb
Phosphorus	31-2	5066.37	5060.40	5196.41	5107.72	1.50	ppb
Potassium	39-2	12554.82	12522.75	12761.11	12612.89	1.03	ppb
Rhodium	103-1				98		%
Rhodium	103-2				100		%
Scandium	45-1				98		%
Scandium	45-2				95		%
Selenium	82-1	266.22	267.80	265.22	266.41	0.49	ppb
Selenium	77-2	249.23	261.75	263.06	258.01	2.96	ppb
Selenium	78-2	266.35	271.09	260.56	266.00	1.98	ppb
Silicon	28-1	268.79	289.43	276.12	278.11	3.76	ppb
Silver	107-1	259.91	256.89	254.27	257.02	1.10	ppb
Silver	109-1	258.04	261.33	260.50	259.96	0.66	ppb
Sodium	23-2	26337.76	26274.88	26270.50	26294.38	0.14	ppb
Strontium	86-1	253.60	254.12	253.10	253.61	0.20	ppb
Strontium	88-1	254.81	256.43	255.76	255.67	0.32	ppb
Sulfur	34-1	5388.44	5805.60	5184.85	5459.63	5.80	ppb
Terbium	159-1				102		%
Terbium	159-2				106		%
Thallium	203-1	240.01	240.54	238.91	239.82	0.35	ppb
Thallium	205-1	244.93	242.03	244.54	243.83	0.65	ppb
Tin	118-1	253.34	253.41	251.48	252.74	0.43	ppb
Titanium	47-1	2502.85	2661.95	2514.43	2559.74	3.47	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S5 Instrumnet Name : P7
Client Sample ID : S5 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:25:20 DataFile Name : 010CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	239.71	246.78	249.92	245.47	2.13	ppb
Vanadium	51-2	254.33	252.31	255.52	254.05	0.64	ppb
Yttrium	89-1				99		%
Yttrium	89-2				100		%
Zinc	66-2	2636.39	2645.82	2670.97	2651.06	0.67	ppb
Zirconium	90-1	255.01	256.53	252.73	254.76	0.75	ppb
Zirconium	91-1	255.93	255.98	257.41	256.44	0.33	ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S6 Instrumnet Name : P7
Client Sample ID : S6 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:28:16 DataFile Name : 011CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	10078.01	10029.63	9870.40	9992.68	1.09	ppb
Antimony	121-1	510.03	497.91	502.26	503.40	1.22	ppb
Arsenic	75-2	497.13	488.75	511.57	499.15	2.31	ppb
Barium	135-1	2535.85	2487.47	2522.90	2515.41	1.00	ppb
Barium	137-1	2561.37	2480.73	2562.05	2534.72	1.84	ppb
Beryllium	9-1	509.49	512.11	515.47	512.36	0.59	ppb
Bismuth	209-1				103		%
Bismuth	209-2				104		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	517.13	500.41	510.81	509.45	1.66	ppb
Cadmium	106-1	510.44	505.15	516.20	510.60	1.08	ppb
Cadmium	111-1	514.28	505.71	510.86	510.28	0.85	ppb
Calcium	43-1	57292.85	58437.15	60745.49	58825.16	2.99	ppb
Calcium	44-1	54047.87	55331.42	56339.18	55239.49	2.08	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	507.45	509.32	505.26	507.34	0.40	ppb
Cobalt	59-2	501.30	501.11	498.00	500.14	0.37	ppb
Copper	63-2	5072.59	5068.97	5048.12	5063.23	0.26	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				101		%
Holmium	165-2				107		%
Indium	115-1				98		%
Indium	115-2				102		%
Iron	56-2	26561.83	26290.33	26185.08	26345.75	0.74	ppb
Iron	57-2	27474.19	27399.06	27146.28	27339.84	0.63	ppb
Iron	54-2	26572.78	26902.18	26408.81	26627.92	0.94	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S6 Instrumnet Name : P7
Client Sample ID : S6 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:28:16 DataFile Name : 011CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2460.78	2445.52	2457.57	2454.62	0.33	ppb
Lead	207-1	2466.81	2409.77	2457.18	2444.59	1.25	ppb
Lead	208-1	2485.00	2457.41	2472.86	2471.76	0.56	ppb
Lithium	6-1				110		%
Magnesium	24-2	51118.78	51146.81	50523.79	50929.79	0.69	ppb
Manganese	55-2	5044.80	4999.72	5022.39	5022.30	0.45	ppb
Molybdenum	94-1	5022.14	5061.33	4964.65	5016.04	0.97	ppb
Molybdenum	95-1	4987.07	5098.60	4937.94	5007.87	1.64	ppb
Molybdenum	96-1	5001.80	5199.69	4940.19	5047.23	2.69	ppb
Molybdenum	97-1	5028.45	5079.45	4955.27	5021.05	1.24	ppb
Molybdenum	98-1	5077.43	5016.38	4938.61	5010.81	1.39	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	509.61	505.81	508.49	507.97	0.38	ppb
Phosphorus	31-2	10202.62	10230.94	9882.30	10105.29	1.92	ppb
Potassium	39-2	25323.34	25217.05	24891.14	25143.84	0.90	ppb
Rhodium	103-1				97		%
Rhodium	103-2				100		%
Scandium	45-1				100		%
Scandium	45-2				96		%
Selenium	82-1	511.05	520.70	507.94	513.23	1.30	ppb
Selenium	77-2	525.32	498.09	503.38	508.93	2.84	ppb
Selenium	78-2	522.42	497.57	505.51	508.50	2.50	ppb
Silicon	28-1	465.27	496.04	505.90	489.07	4.33	ppb
Silver	107-1	518.58	504.34	508.42	510.45	1.44	ppb
Silver	109-1	515.36	501.70	513.97	510.34	1.47	ppb
Sodium	23-2	52053.90	52248.52	51539.71	51947.38	0.70	ppb
Strontium	86-1	503.37	508.29	493.41	501.69	1.51	ppb
Strontium	88-1	503.52	511.77	493.14	502.81	1.86	ppb
Sulfur	34-1	9787.04	9766.79	10206.97	9920.27	2.50	ppb
Terbium	159-1				102		%
Terbium	159-2				108		%
Thallium	203-1	497.90	487.37	498.64	494.64	1.27	ppb
Thallium	205-1	495.06	486.35	493.48	491.63	0.94	ppb
Tin	118-1	512.52	503.33	507.66	507.84	0.91	ppb
Titanium	47-1	4873.81	4960.33	5166.73	5000.29	3.01	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S6 Instrumnet Name : P7
Client Sample ID : S6 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:28:16 DataFile Name : 011CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	497.69	487.81	499.93	495.14	1.30	ppb
Vanadium	51-2	506.96	504.75	501.56	504.42	0.54	ppb
Yttrium	89-1				99		%
Yttrium	89-2				102		%
Zinc	66-2	5083.29	5149.49	5135.96	5122.91	0.68	ppb
Zirconium	90-1	498.91	508.06	494.45	500.47	1.39	ppb
Zirconium	91-1	508.37	515.29	501.34	508.33	1.37	ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S7 Instrumnet Name : P7
Client Sample ID : S7 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:31:06 DataFile Name : 012CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	20193.21	19954.68	20273.75	20140.55	0.82	ppb
Antimony	121-1	1010.74	983.17	997.91	997.27	1.38	ppb
Arsenic	75-2	1009.99	996.77	989.38	998.71	1.05	ppb
Barium	135-1	4910.33	5023.88	5056.39	4996.87	1.53	ppb
Barium	137-1	4971.49	4931.25	5040.90	4981.21	1.11	ppb
Beryllium	9-1	971.97	990.32	1008.59	990.29	1.85	ppb
Bismuth	209-1				102		%
Bismuth	209-2				104		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	988.20	992.35	997.78	992.78	0.48	ppb
Cadmium	106-1	988.38	994.77	990.73	991.30	0.33	ppb
Cadmium	111-1	992.63	984.80	996.74	991.39	0.61	ppb
Calcium	43-1	110233.88	113379.88	111888.47	111834.08	1.41	ppb
Calcium	44-1	108960.39	112269.35	111721.81	110983.85	1.60	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1008.09	982.71	990.93	993.91	1.30	ppb
Cobalt	59-2	1007.62	983.35	1004.23	998.40	1.32	ppb
Copper	63-2	10054.08	9806.37	9972.05	9944.17	1.27	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				104		%
Holmium	165-2				110		%
Indium	115-1				99		%
Indium	115-2				101		%
Iron	56-2	52973.83	51981.88	52500.51	52485.41	0.95	ppb
Iron	57-2	52323.71	51678.41	52110.19	52037.44	0.63	ppb
Iron	54-2	53570.11	51853.72	52415.17	52613.00	1.66	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S7 Instrumnet Name : P7
Client Sample ID : S7 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:31:06 DataFile Name : 012CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	5053.53	4953.41	5078.01	5028.32	1.31	ppb
Lead	207-1	5070.36	4916.88	5107.60	5031.61	2.01	ppb
Lead	208-1	5025.21	4938.56	5090.02	5017.93	1.51	ppb
Lithium	6-1				110		%
Magnesium	24-2	101216.81	99691.27	101485.49	100797.86	0.96	ppb
Manganese	55-2	9970.56	9975.09	9996.81	9980.82	0.14	ppb
Molybdenum	94-1	9758.51	10115.53	10065.90	9979.98	1.94	ppb
Molybdenum	95-1	9713.03	10147.46	10112.51	9991.00	2.42	ppb
Molybdenum	96-1	9829.44	10148.03	9908.16	9961.88	1.67	ppb
Molybdenum	97-1	9818.71	10145.66	9969.36	9977.91	1.64	ppb
Molybdenum	98-1	9791.26	10080.53	10077.82	9983.21	1.67	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1005.40	985.25	989.52	993.39	1.07	ppb
Phosphorus	31-2	19998.37	19753.01	19994.23	19915.20	0.71	ppb
Potassium	39-2	50377.74	48666.58	50123.77	49722.70	1.86	ppb
Rhodium	103-1				98		%
Rhodium	103-2				101		%
Scandium	45-1				102		%
Scandium	45-2				99		%
Selenium	82-1	975.73	1006.32	982.76	988.27	1.62	ppb
Selenium	77-2	985.91	1019.78	971.64	992.45	2.49	ppb
Selenium	78-2	1003.62	986.17	983.63	991.14	1.10	ppb
Silicon	28-1	979.09	1014.07	1000.03	997.73	1.76	ppb
Silver	107-1	999.07	983.09	993.28	991.82	0.82	ppb
Silver	109-1	999.88	980.49	993.30	991.22	1.00	ppb
Sodium	23-2	103199.70	101566.94	104252.79	103006.48	1.31	ppb
Strontium	86-1	980.87	1003.84	1010.01	998.24	1.54	ppb
Strontium	88-1	980.96	1003.53	1007.24	997.24	1.43	ppb
Sulfur	34-1	19382.71	20602.73	19742.23	19909.22	3.15	ppb
Terbium	159-1				104		%
Terbium	159-2				110		%
Thallium	203-1	1002.12	978.02	1037.64	1005.93	2.98	ppb
Thallium	205-1	1008.22	996.57	1015.30	1006.70	0.94	ppb
Tin	118-1	981.42	990.94	1012.43	994.93	1.60	ppb
Titanium	47-1	9827.03	10136.55	9992.69	9985.42	1.55	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S7 Instrumnet Name : P7
Client Sample ID : S7 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:31:06 DataFile Name : 012CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	1010.54	997.36	1007.11	1005.00	0.68	ppb
Vanadium	51-2	995.42	986.36	1008.16	996.64	1.10	ppb
Yttrium	89-1				102		%
Yttrium	89-2				103		%
Zinc	66-2	9977.03	9788.20	9909.22	9891.48	0.97	ppb
Zirconium	90-1	975.90	1012.58	1007.00	998.50	1.98	ppb
Zirconium	91-1	980.23	1009.77	992.41	994.14	1.49	ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S8 Instrumnet Name : P7
Client Sample ID : S8 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:33:50 DataFile Name : 013CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	100038.11	99273.54	100586.61	99966.09	0.66	ppb
Antimony	121-1	0.33	0.46	0.50	0.43	20.37	ppb
Arsenic	75-2	0.47	0.40	0.60	0.49	21.02	ppb
Barium	135-1	1.50	2.00	2.19	1.90	18.71	ppb
Barium	137-1	1.62	2.04	2.20	1.95	15.28	ppb
Beryllium	9-1	0.13	0.08	0.09	0.10	26.07	ppb
Bismuth	209-1				105		%
Bismuth	209-2				98		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.24	0.29	0.31	0.28	12.28	ppb
Cadmium	106-1	0.47	0.44	0.39	0.43	8.72	ppb
Cadmium	111-1	0.16	0.17	0.19	0.17	8.14	ppb
Calcium	43-1	406582.23	534082.53	548608.28	496424.35	15.74	ppb
Calcium	44-1	415010.13	531036.38	545164.22	497070.24	14.37	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	8.53	8.27	8.21	8.34	2.02	ppb
Cobalt	59-2	2.53	2.62	2.62	2.59	1.99	ppb
Copper	63-2	2.59	2.73	2.71	2.68	2.90	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				114		%
Holmium	165-2				108		%
Indium	115-1				109		%
Indium	115-2				104		%
Iron	56-2	251621.98	246512.49	249818.12	249317.53	1.04	ppb
Iron	57-2	252288.68	246539.13	248992.36	249273.39	1.16	ppb
Iron	54-2	251043.61	248751.10	247906.58	249233.77	0.65	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S8 Instrumnet Name : P7
Client Sample ID : S8 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:33:50 DataFile Name : 013CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	1.80	2.38	2.59	2.26	18.12	ppb
Lead	207-1	1.92	2.56	2.63	2.37	16.59	ppb
Lead	208-1	1.87	2.47	2.58	2.31	16.51	ppb
Lithium	6-1				112		%
Magnesium	24-2	503880.75	494075.35	501120.92	499692.34	1.01	ppb
Manganese	55-2	5.56	5.57	5.39	5.51	1.90	ppb
Molybdenum	94-1	1.77	2.45	2.53	2.25	18.53	ppb
Molybdenum	95-1	1.01	1.48	1.61	1.37	23.07	ppb
Molybdenum	96-1	4.34	5.78	6.10	5.41	17.37	ppb
Molybdenum	97-1	1.23	1.52	1.72	1.49	16.73	ppb
Molybdenum	98-1	1.05	1.34	1.50	1.30	17.49	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	3.98	3.82	3.74	3.85	3.16	ppb
Phosphorus	31-2	-17.89	-18.72	-15.73	-17.45		ppb
Potassium	39-2	250736.50	248083.59	251275.01	250031.70	0.68	ppb
Rhodium	103-1				103		%
Rhodium	103-2				99		%
Scandium	45-1				114		%
Scandium	45-2				108		%
Selenium	82-1	1.10	1.18	1.98	1.42	34.23	ppb
Selenium	77-2	0.50	0.51	0.78	0.60	26.47	ppb
Selenium	78-2	-2.92	-2.01	-1.32	-2.08		ppb
Silicon	28-1	-33.97	-27.28	-10.55	-23.93		ppb
Silver	107-1	0.06	0.09	0.12	0.09	33.75	ppb
Silver	109-1	0.07	0.10	0.11	0.09	21.91	ppb
Sodium	23-2	505343.14	492396.65	499625.19	499121.66	1.30	ppb
Strontium	86-1	2.51	3.16	3.31	2.99	14.21	ppb
Strontium	88-1	2.57	3.33	3.39	3.10	14.74	ppb
Sulfur	34-1	-2796.78	-1826.30	-1450.84	-2024.64		ppb
Terbium	159-1				116		%
Terbium	159-2				110		%
Thallium	203-1	0.11	0.13	0.14	0.13	12.97	ppb
Thallium	205-1	0.10	0.12	0.13	0.11	14.94	ppb
Tin	118-1	0.12	0.17	0.18	0.16	21.39	ppb
Titanium	47-1	0.37	0.54	0.83	0.58	39.43	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S8 Instrumnet Name : P7
Client Sample ID : S8 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:33:50 DataFile Name : 013CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.04	0.05	0.06	0.05	16.73	ppb
Vanadium	51-2	0.31	0.31	0.27	0.30	8.65	ppb
Yttrium	89-1				114		%
Yttrium	89-2				109		%
Zinc	66-2	16.20	16.94	16.20	16.45	2.60	ppb
Zirconium	90-1	0.35	0.46	0.47	0.43	15.49	ppb
Zirconium	91-1	0.33	0.43	0.48	0.41	19.28	ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : ICV01 Instrumnet Name : P7
Client Sample ID : ICV01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:58:50 DataFile Name : 015ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	480.14	478.90	472.33	477.12	0.88	ppb
Antimony	121-1	198.10	210.39	208.66	205.71	3.23	ppb
Arsenic	75-2	203.56	207.64	208.29	206.50	1.24	ppb
Barium	135-1	99.56	102.79	102.35	101.56	1.72	ppb
Barium	137-1	101.05	104.08	104.16	103.10	1.72	ppb
Beryllium	9-1	109.29	101.91	101.40	104.20	4.24	ppb
Bismuth	209-1				107		%
Bismuth	209-2				107		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	96.32	95.33	89.64	93.76	3.85	ppb
Cadmium	106-1	91.78	96.17	96.66	94.87	2.83	ppb
Cadmium	111-1	102.34	109.24	109.25	106.94	3.73	ppb
Calcium	43-1	2243.01	2243.21	2228.90	2238.38	0.37	ppb
Calcium	44-1	2206.25	2274.36	2247.70	2242.77	1.53	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	102.51	101.82	102.13	102.15	0.34	ppb
Cobalt	59-2	101.67	101.39	101.42	101.49	0.15	ppb
Copper	63-2	94.09	93.50	93.48	93.69	0.37	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				106		%
Holmium	165-2				109		%
Indium	115-1				108		%
Indium	115-2				111		%
Iron	56-2	2051.63	2036.96	2032.54	2040.38	0.49	ppb
Iron	57-2	2123.41	2104.64	2107.60	2111.88	0.48	ppb
Iron	54-2	2189.97	2159.31	2177.34	2175.54	0.71	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : ICV01 Instrumnet Name : P7
Client Sample ID : ICV01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:58:50 DataFile Name : 015ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	196.27	193.06	197.45	195.59	1.16	ppb
Lead	207-1	189.30	180.21	184.90	184.80	2.46	ppb
Lead	208-1	193.00	185.41	189.83	189.41	2.01	ppb
Lithium	6-1				96		%
Magnesium	24-2	1111.89	1114.83	1110.79	1112.50	0.19	ppb
Manganese	55-2	91.05	90.85	90.35	90.75	0.40	ppb
Molybdenum	94-1	0.05	0.06	0.04	0.05	13.98	ppb
Molybdenum	95-1	0.03	0.02	0.03	0.03	17.59	ppb
Molybdenum	96-1	0.07	0.08	0.07	0.07	6.70	ppb
Molybdenum	97-1	0.02	0.03	0.04	0.03	25.93	ppb
Molybdenum	98-1	0.04	0.04	0.02	0.03	25.07	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	102.50	102.27	102.62	102.46	0.18	ppb
Phosphorus	31-2	-24.47	-24.27	-13.69	-20.81		ppb
Potassium	39-2	2028.80	2017.15	2021.04	2022.33	0.29	ppb
Rhodium	103-1				107		%
Rhodium	103-2				110		%
Scandium	45-1				105		%
Scandium	45-2				109		%
Selenium	82-1	216.65	213.03	217.43	215.70	1.09	ppb
Selenium	77-2	200.71	225.81	220.81	215.78	6.16	ppb
Selenium	78-2	213.82	227.19	224.85	221.95	3.22	ppb
Silicon	28-1	-5.72	-7.50	-7.71	-6.98		ppb
Silver	107-1	50.06	52.80	52.60	51.82	2.95	ppb
Silver	109-1	50.40	52.79	52.06	51.75	2.37	ppb
Sodium	23-2	1960.36	1958.74	1945.57	1954.89	0.41	ppb
Strontium	86-1	0.23	0.31	0.30	0.28	15.90	ppb
Strontium	88-1	0.25	0.24	0.26	0.25	4.55	ppb
Sulfur	34-1	-1489.26	-1490.52	-1549.91	-1509.89		ppb
Terbium	159-1				106		%
Terbium	159-2				111		%
Thallium	203-1	193.67	182.35	188.49	188.17	3.01	ppb
Thallium	205-1	195.81	191.83	198.62	195.42	1.75	ppb
Tin	118-1	0.01	0.02	0.03	0.02	41.62	ppb
Titanium	47-1	0.07	-0.01	0.02	0.02	161.43	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : ICV01 Instrumnet Name : P7
Client Sample ID : ICV01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:58:50 DataFile Name : 015ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00	228.00	ppb
Vanadium	51-2	99.33	98.28	99.64	99.08	0.72	ppb
Yttrium	89-1				107		%
Yttrium	89-2				110		%
Zinc	66-2	183.39	179.78	182.54	181.90	1.04	ppb
Zirconium	90-1	0.02	0.02	0.02	0.02	19.28	ppb
Zirconium	91-1	0.05	0.05	0.04	0.05	14.03	ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : LLICV Instrumnet Name : P7
Client Sample ID : LLICV Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:17:08 DataFile Name : 019LLIC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	20.71	19.89	20.77	20.46	2.40	ppb
Antimony	121-1	2.07	2.06	2.18	2.10	3.10	ppb
Arsenic	75-2	1.32	1.15	0.93	1.13	17.05	ppb
Barium	135-1	9.81	10.08	10.02	9.97	1.46	ppb
Barium	137-1	9.78	10.21	9.95	9.98	2.17	ppb
Beryllium	9-1	1.16	1.15	1.24	1.18	3.96	ppb
Bismuth	209-1				107		%
Bismuth	209-2				104		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.79	1.24	1.34	1.12	26.35	ppb
Cadmium	106-1	-0.29	0.28	-0.55	-0.19		ppb
Cadmium	111-1	1.09	1.03	0.86	0.99	11.75	ppb
Calcium	43-1	586.34	596.45	581.88	588.22	1.27	ppb
Calcium	44-1	587.77	599.09	607.71	598.19	1.67	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.16	2.14	2.09	2.13	1.61	ppb
Cobalt	59-2	1.09	1.03	1.07	1.06	3.11	ppb
Copper	63-2	1.89	1.87	2.04	1.93	4.81	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				105		%
Holmium	165-2				106		%
Indium	115-1				108		%
Indium	115-2				108		%
Iron	56-2	57.35	55.66	57.11	56.71	1.61	ppb
Iron	57-2	59.69	58.12	58.01	58.61	1.61	ppb
Iron	54-2	57.71	55.74	59.04	57.50	2.89	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : LLICV Instrumnet Name : P7
Client Sample ID : LLICV Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:17:08 DataFile Name : 019LLIC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.94	0.96	0.97	0.96	1.61	ppb
Lead	207-1	0.96	1.00	1.04	1.00	3.95	ppb
Lead	208-1	0.94	0.99	1.01	0.98	3.36	ppb
Lithium	6-1				97		%
Magnesium	24-2	517.92	509.49	507.30	511.57	1.10	ppb
Manganese	55-2	1.00	1.01	0.96	0.99	2.83	ppb
Molybdenum	94-1	5.95	5.98	5.91	5.94	0.59	ppb
Molybdenum	95-1	5.21	5.05	5.06	5.11	1.72	ppb
Molybdenum	96-1	5.24	5.30	5.30	5.28	0.67	ppb
Molybdenum	97-1	5.05	5.22	5.08	5.12	1.79	ppb
Molybdenum	98-1	5.16	5.08	5.20	5.15	1.28	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.02	1.06	1.03	1.03	2.01	ppb
Phosphorus	31-2	10.79	20.78	13.39	14.98	34.59	ppb
Potassium	39-2	520.99	521.57	515.05	519.20	0.70	ppb
Rhodium	103-1				107		%
Rhodium	103-2				109		%
Scandium	45-1				105		%
Scandium	45-2				108		%
Selenium	82-1	5.27	5.23	5.59	5.36	3.69	ppb
Selenium	77-2	5.78	5.16	2.59	4.51	37.47	ppb
Selenium	78-2	3.58	5.06	4.23	4.29	17.30	ppb
Silicon	28-1	-10.11	-6.29	-6.95	-7.78		ppb
Silver	107-1	1.04	1.04	1.01	1.03	1.57	ppb
Silver	109-1	1.03	1.09	1.03	1.05	3.28	ppb
Sodium	23-2	519.94	514.82	513.52	516.09	0.66	ppb
Strontium	86-1	0.99	1.01	1.11	1.04	6.41	ppb
Strontium	88-1	1.06	1.04	1.04	1.05	1.27	ppb
Sulfur	34-1	-1493.54	-1414.88	-1400.71	-1436.38		ppb
Terbium	159-1				108		%
Terbium	159-2				109		%
Thallium	203-1	1.00	0.96	1.02	0.99	3.11	ppb
Thallium	205-1	0.94	0.94	1.01	0.97	3.81	ppb
Tin	118-1	5.18	5.28	5.33	5.26	1.44	ppb
Titanium	47-1	5.15	5.04	5.15	5.11	1.29	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : LLICV Instrumnet Name : P7
Client Sample ID : LLICV Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:17:08 DataFile Name : 019LLIC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.94	0.96	0.95	0.95	1.20	ppb
Vanadium	51-2	5.18	5.13	4.96	5.09	2.25	ppb
Yttrium	89-1				107		%
Yttrium	89-2				109		%
Zinc	66-2	4.88	5.13	4.80	4.94	3.45	ppb
Zirconium	90-1	1.01	1.04	1.03	1.02	1.45	ppb
Zirconium	91-1	1.03	0.98	0.97	0.99	3.49	ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : ICB01 Instrumnet Name : P7
Client Sample ID : ICB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:20:36 DataFile Name : 020_ICB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.66	0.01	0.51	0.39	85.82	ppb
Antimony	121-1	0.01	0.00	0.00	0.01	69.78	ppb
Arsenic	75-2	-0.01	-0.01	-0.02	-0.01		ppb
Barium	135-1	-0.01	0.00	-0.01	-0.01		ppb
Barium	137-1	0.01	0.01	0.01	0.01	19.42	ppb
Beryllium	9-1	-0.02	0.01	0.02	0.00	493.01	ppb
Bismuth	209-1				107		%
Bismuth	209-2				108		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.14	-0.01	-0.14	-0.10		ppb
Cadmium	106-1	0.16	-1.19	-0.59	-0.54		ppb
Cadmium	111-1	0.01	-0.08	-0.03	-0.03		ppb
Calcium	43-1	-3.87	-1.93	-5.83	-3.88		ppb
Calcium	44-1	0.44	-0.09	-0.15	0.07	475.84	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.01	0.06	0.00	0.03	125.90	ppb
Cobalt	59-2	-0.01	-0.01	-0.01	-0.01		ppb
Copper	63-2	0.02	0.01	-0.03	0.00	5333.66	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				107		%
Holmium	165-2				109		%
Indium	115-1				108		%
Indium	115-2				109		%
Iron	56-2	0.97	0.69	0.28	0.65	53.43	ppb
Iron	57-2	0.39	0.30	-0.80	-0.04		ppb
Iron	54-2	-0.44	2.93	1.23	1.24	135.99	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : ICB01 Instrumnet Name : P7
Client Sample ID : ICB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:20:36 DataFile Name : 020_ICB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.03	0.00	-0.01	0.01	219.78	ppb
Lead	207-1	0.03	0.05	0.00	0.03	90.48	ppb
Lead	208-1	0.02	0.02	0.00	0.01	65.75	ppb
Lithium	6-1				96		%
Magnesium	24-2	0.20	0.18	-0.08	0.10	155.99	ppb
Manganese	55-2	0.02	0.05	-0.04	0.01	393.31	ppb
Molybdenum	94-1	-0.01	-0.01	0.01	0.00		ppb
Molybdenum	95-1	0.01	0.00	0.01	0.01	70.12	ppb
Molybdenum	96-1	0.00	0.00	0.01	0.00	137.54	ppb
Molybdenum	97-1	0.00	0.00	0.02	0.00	239.64	ppb
Molybdenum	98-1	0.00	0.00	0.00	0.00	64.80	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.02	-0.07	0.00	-0.02		ppb
Phosphorus	31-2	-23.54	-25.03	-17.94	-22.17		ppb
Potassium	39-2	-7.33	-8.21	-9.63	-8.39		ppb
Rhodium	103-1				107		%
Rhodium	103-2				108		%
Scandium	45-1				106		%
Scandium	45-2				106		%
Selenium	82-1	0.03	0.92	-0.17	0.26	222.97	ppb
Selenium	77-2	0.00	0.00	0.00	0.00	N/A	ppb
Selenium	78-2	0.50	-1.21	0.65	-0.02		ppb
Silicon	28-1	-8.14	-7.29	-9.40	-8.28		ppb
Silver	107-1	0.00	0.00	0.00	0.00		ppb
Silver	109-1	0.00	0.00	0.00	0.00	159.74	ppb
Sodium	23-2	5.33	3.41	5.41	4.72	23.96	ppb
Strontium	86-1	-0.02	-0.01	-0.05	-0.02		ppb
Strontium	88-1	0.00	0.00	0.00	0.00		ppb
Sulfur	34-1	-1579.36	-1458.96	-1560.74	-1533.02		ppb
Terbium	159-1				108		%
Terbium	159-2				111		%
Thallium	203-1	0.01	0.01	0.01	0.01	8.50	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	21.33	ppb
Tin	118-1	0.00	0.02	0.02	0.01	84.18	ppb
Titanium	47-1	-0.02	-0.03	-0.02	-0.02		ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : ICB01 Instrumnet Name : P7
Client Sample ID : ICB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:20:36 DataFile Name : 020_ICB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00		ppb
Vanadium	51-2	0.00	0.00	0.00	0.00		ppb
Yttrium	89-1				107		%
Yttrium	89-2				109		%
Zinc	66-2	0.03	-0.04	0.02	0.00		ppb
Zirconium	90-1	0.00	-0.01	0.00	0.00		ppb
Zirconium	91-1	-0.02	0.01	0.01	0.00	1147.87	ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : ICSA01 Instrumnet Name : P7
Client Sample ID : ICSA01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:24:44 DataFile Name : 021ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	96271.90	98123.89	96567.77	96987.86	1.03	ppb
Antimony	121-1	1.34	1.33	1.30	1.32	1.37	ppb
Arsenic	75-2	0.45	0.35	0.22	0.34	34.65	ppb
Barium	135-1	1.53	1.61	1.65	1.60	3.79	ppb
Barium	137-1	1.60	1.51	1.59	1.56	3.23	ppb
Beryllium	9-1	0.26	0.34	0.29	0.30	13.06	ppb
Bismuth	209-1				105		%
Bismuth	209-2				105		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	7.14	7.00	6.73	6.96	2.96	ppb
Cadmium	106-1	-1.35	-1.19	-1.58	-1.37		ppb
Cadmium	111-1	0.14	0.22	0.21	0.19	23.05	ppb
Calcium	43-1	113327.73	111726.44	116395.00	113816.39	2.08	ppb
Calcium	44-1	111184.43	115151.77	115811.94	114049.38	2.19	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	21.22	21.23	21.11	21.19	0.30	ppb
Cobalt	59-2	1.32	1.29	1.26	1.29	2.11	ppb
Copper	63-2	9.92	9.81	9.73	9.82	0.96	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				109		%
Holmium	165-2				110		%
Indium	115-1				107		%
Indium	115-2				108		%
Iron	56-2	109037.71	107988.02	108149.79	108391.84	0.52	ppb
Iron	57-2	107140.37	106024.81	105083.05	106082.74	0.97	ppb
Iron	54-2	107918.47	109345.52	107133.85	108132.61	1.04	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : ICSA01 Instrumnet Name : P7
Client Sample ID : ICSA01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:24:44 DataFile Name : 021ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	5.22	5.19	5.14	5.19	0.79	ppb
Lead	207-1	4.52	4.36	4.38	4.42	1.96	ppb
Lead	208-1	4.79	4.75	4.61	4.72	2.02	ppb
Lithium	6-1				99		%
Magnesium	24-2	99104.03	100069.86	98849.17	99341.02	0.65	ppb
Manganese	55-2	7.37	7.53	7.56	7.49	1.33	ppb
Molybdenum	94-1	1649.19	1740.63	1656.35	1682.06	3.02	ppb
Molybdenum	95-1	2027.00	2086.31	2025.87	2046.40	1.69	ppb
Molybdenum	96-1	2033.78	2035.99	1986.76	2018.84	1.38	ppb
Molybdenum	97-1	2063.65	2081.68	2013.15	2052.83	1.73	ppb
Molybdenum	98-1	2022.00	2105.20	2032.57	2053.25	2.21	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	6.41	6.07	6.25	6.24	2.73	ppb
Phosphorus	31-2	104202.10	105064.96	104575.53	104614.20	0.41	ppb
Potassium	39-2	104222.79	103420.40	102595.02	103412.74	0.79	ppb
Rhodium	103-1				103		%
Rhodium	103-2				105		%
Scandium	45-1				104		%
Scandium	45-2				103		%
Selenium	82-1	-0.08	-0.22	-0.12	-0.14		ppb
Selenium	77-2	0.26	0.77	0.00	0.34	114.22	ppb
Selenium	78-2	0.34	-3.08	-2.24	-1.66		ppb
Silicon	28-1	-9.48	-26.89	-25.67	-20.68		ppb
Silver	107-1	0.01	0.02	0.03	0.02	36.74	ppb
Silver	109-1	0.01	0.02	0.04	0.02	49.72	ppb
Sodium	23-2	106507.67	107696.17	105438.77	106547.54	1.06	ppb
Strontium	86-1	35.76	36.51	35.35	35.87	1.64	ppb
Strontium	88-1	35.80	37.23	35.92	36.32	2.19	ppb
Sulfur	34-1	106249.07	104456.63	108512.66	106406.12	1.91	ppb
Terbium	159-1				110		%
Terbium	159-2				112		%
Thallium	203-1	0.07	0.07	0.10	0.08	23.01	ppb
Thallium	205-1	0.05	0.07	0.08	0.06	22.99	ppb
Tin	118-1	0.49	0.62	0.66	0.59	14.92	ppb
Titanium	47-1	2038.45	2091.59	2105.61	2078.55	1.70	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : ICSA01 Instrumnet Name : P7
Client Sample ID : ICSA01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:24:44 DataFile Name : 021ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.02	0.03	0.02	0.02	23.45	ppb
Vanadium	51-2	0.20	0.21	0.20	0.20	4.35	ppb
Yttrium	89-1				107		%
Yttrium	89-2				107		%
Zinc	66-2	13.58	14.10	13.55	13.74	2.22	ppb
Zirconium	90-1	0.03	0.04	0.04	0.03	9.67	ppb
Zirconium	91-1	0.02	0.02	0.04	0.03	36.74	ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : ICSAB01 Instrumnet Name : P7
Client Sample ID : ICSAB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:27:51 DataFile Name : 022ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	91384.39	89185.21	90334.80	90301.47	1.22	ppb
Antimony	121-1	20.69	20.90	20.87	20.82	0.57	ppb
Arsenic	75-2	20.42	20.24	20.56	20.41	0.79	ppb
Barium	135-1	21.23	20.29	20.57	20.70	2.32	ppb
Barium	137-1	21.24	20.91	21.12	21.09	0.81	ppb
Beryllium	9-1	21.43	21.25	21.07	21.25	0.86	ppb
Bismuth	209-1				109		%
Bismuth	209-2				109		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	27.22	26.38	25.61	26.40	3.05	ppb
Cadmium	106-1	22.19	20.81	20.88	21.29	3.64	ppb
Cadmium	111-1	19.24	19.74	19.69	19.56	1.41	ppb
Calcium	43-1	106576.65	106991.38	106544.02	106704.02	0.23	ppb
Calcium	44-1	105726.93	107974.01	107874.76	107191.90	1.18	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	40.39	40.50	40.50	40.46	0.16	ppb
Cobalt	59-2	21.35	21.04	21.01	21.13	0.88	ppb
Copper	63-2	28.18	27.79	27.62	27.86	1.03	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				111		%
Holmium	165-2				113		%
Indium	115-1				108		%
Indium	115-2				108		%
Iron	56-2	101611.59	100197.72	100427.36	100745.55	0.75	ppb
Iron	57-2	100235.44	99305.49	98853.70	99464.88	0.71	ppb
Iron	54-2	102124.59	101851.31	101538.47	101838.12	0.29	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : ICSAB01 Instrumnet Name : P7
Client Sample ID : ICSAB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:27:51 DataFile Name : 022ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	24.98	24.36	24.96	24.77	1.42	ppb
Lead	207-1	23.29	23.50	23.40	23.40	0.45	ppb
Lead	208-1	24.04	23.79	23.93	23.92	0.54	ppb
Lithium	6-1				99		%
Magnesium	24-2	92799.27	92259.72	91447.10	92168.70	0.74	ppb
Manganese	55-2	25.93	25.73	25.46	25.71	0.92	ppb
Molybdenum	94-1	1667.23	1742.25	1717.50	1708.99	2.24	ppb
Molybdenum	95-1	1937.30	1975.66	1962.67	1958.54	1.00	ppb
Molybdenum	96-1	1893.80	1975.24	1966.42	1945.15	2.30	ppb
Molybdenum	97-1	1937.93	2004.51	1975.58	1972.67	1.69	ppb
Molybdenum	98-1	1949.69	2005.91	1985.78	1980.46	1.44	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	26.36	25.70	25.12	25.73	2.40	ppb
Phosphorus	31-2	98451.16	97875.65	97265.97	97864.26	0.61	ppb
Potassium	39-2	98270.26	97063.60	96361.89	97231.92	0.99	ppb
Rhodium	103-1				106		%
Rhodium	103-2				107		%
Scandium	45-1				107		%
Scandium	45-2				105		%
Selenium	82-1	18.90	21.09	19.58	19.86	5.63	ppb
Selenium	77-2	19.78	20.17	17.99	19.31	6.02	ppb
Selenium	78-2	18.48	20.09	19.82	19.46	4.41	ppb
Silicon	28-1	-7.23	-5.30	-5.90	-6.14		ppb
Silver	107-1	19.16	19.32	19.20	19.22	0.44	ppb
Silver	109-1	19.11	19.20	18.86	19.06	0.92	ppb
Sodium	23-2	100961.99	99727.07	100175.22	100288.09	0.62	ppb
Strontium	86-1	80.68	82.19	82.35	81.74	1.13	ppb
Strontium	88-1	80.91	83.21	83.95	82.69	1.92	ppb
Sulfur	34-1	100524.27	100805.42	104359.23	101896.31	2.10	ppb
Terbium	159-1				114		%
Terbium	159-2				114		%
Thallium	203-1	19.63	19.87	19.92	19.81	0.79	ppb
Thallium	205-1	19.52	19.57	19.43	19.51	0.37	ppb
Tin	118-1	47.45	47.68	47.69	47.61	0.28	ppb
Titanium	47-1	1971.11	1987.69	1992.12	1983.64	0.56	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : ICSAB01 Instrumnet Name : P7
Client Sample ID : ICSAB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:27:51 DataFile Name : 022ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	47.42	47.22	48.09	47.58	0.95	ppb
Vanadium	51-2	20.31	20.12	20.02	20.15	0.71	ppb
Yttrium	89-1				110		%
Yttrium	89-2				111		%
Zinc	66-2	31.02	31.23	30.45	30.90	1.30	ppb
Zirconium	90-1	48.43	49.29	49.67	49.13	1.30	ppb
Zirconium	91-1	48.50	50.29	50.10	49.63	1.98	ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCV01 Instrumnet Name : P7
Client Sample ID : CCV01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:30:55 DataFile Name : 023CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	49834.44	48933.01	49137.49	49301.64	0.96	ppb
Antimony	121-1	477.67	485.11	486.12	482.97	0.96	ppb
Arsenic	75-2	498.37	499.33	494.07	497.26	0.56	ppb
Barium	135-1	2386.52	2440.03	2423.75	2416.77	1.13	ppb
Barium	137-1	2462.90	2512.95	2483.08	2486.31	1.01	ppb
Beryllium	9-1	501.22	509.13	520.72	510.36	1.92	ppb
Bismuth	209-1				106		%
Bismuth	209-2				102		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	460.91	466.20	470.41	465.84	1.02	ppb
Cadmium	106-1	463.21	463.20	471.70	466.03	1.05	ppb
Cadmium	111-1	458.94	470.92	470.64	466.83	1.46	ppb
Calcium	43-1	263376.77	278568.61	272338.25	271427.88	2.81	ppb
Calcium	44-1	268346.06	273368.87	275441.69	272385.54	1.34	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	500.63	496.88	495.62	497.71	0.52	ppb
Cobalt	59-2	491.94	482.82	471.75	482.17	2.10	ppb
Copper	63-2	4869.39	4782.52	4720.45	4790.79	1.56	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				112		%
Holmium	165-2				111		%
Indium	115-1				107		%
Indium	115-2				106		%
Iron	56-2	127075.19	125081.51	123082.95	125079.88	1.60	ppb
Iron	57-2	127935.31	123638.15	122516.80	124696.75	2.29	ppb
Iron	54-2	126734.53	123546.28	123720.38	124667.06	1.44	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCV01 Instrumnet Name : P7
Client Sample ID : CCV01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:30:55 DataFile Name : 023CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2503.65	2521.97	2545.62	2523.75	0.83	ppb
Lead	207-1	2465.10	2536.26	2535.02	2512.13	1.62	ppb
Lead	208-1	2489.44	2514.37	2543.82	2515.88	1.08	ppb
Lithium	6-1				101		%
Magnesium	24-2	246483.77	239377.90	240042.13	241967.93	1.62	ppb
Manganese	55-2	4929.89	4831.28	4822.72	4861.30	1.23	ppb
Molybdenum	94-1	4859.24	4948.99	4955.32	4921.18	1.09	ppb
Molybdenum	95-1	4898.41	4887.95	4994.01	4926.79	1.19	ppb
Molybdenum	96-1	4889.80	4945.69	4933.77	4923.08	0.60	ppb
Molybdenum	97-1	4775.50	4886.98	4956.84	4873.11	1.88	ppb
Molybdenum	98-1	4794.72	4907.07	4987.64	4896.48	1.98	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	483.37	476.53	478.97	479.62	0.72	ppb
Phosphorus	31-2	9996.50	9938.43	9922.11	9952.35	0.39	ppb
Potassium	39-2	125017.33	122524.12	123379.87	123640.44	1.02	ppb
Rhodium	103-1				103		%
Rhodium	103-2				104		%
Scandium	45-1				107		%
Scandium	45-2				108		%
Selenium	82-1	469.92	473.29	482.22	475.14	1.34	ppb
Selenium	77-2	508.29	488.47	478.85	491.87	3.05	ppb
Selenium	78-2	484.07	496.58	482.22	487.63	1.60	ppb
Silicon	28-1	446.02	460.07	451.74	452.61	1.56	ppb
Silver	107-1	474.48	473.46	486.66	478.20	1.54	ppb
Silver	109-1	473.06	486.03	479.02	479.37	1.35	ppb
Sodium	23-2	250165.32	241449.96	245406.63	245673.97	1.78	ppb
Strontium	86-1	479.86	486.00	489.83	485.23	1.04	ppb
Strontium	88-1	482.36	492.52	490.97	488.62	1.12	ppb
Sulfur	34-1	7945.55	8428.76	7976.61	8116.97	3.33	ppb
Terbium	159-1				113		%
Terbium	159-2				112		%
Thallium	203-1	511.42	508.11	515.62	511.72	0.74	ppb
Thallium	205-1	499.31	501.95	509.58	503.61	1.06	ppb
Tin	118-1	481.97	479.94	492.61	484.84	1.40	ppb
Titanium	47-1	4919.34	4955.29	4930.71	4935.11	0.37	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCV01 Instrumnet Name : P7
Client Sample ID : CCV01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:30:55 DataFile Name : 023CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	499.27	509.56	518.93	509.25	1.93	ppb
Vanadium	51-2	508.20	496.72	495.90	500.27	1.37	ppb
Yttrium	89-1				111		%
Yttrium	89-2				110		%
Zinc	66-2	5421.49	5298.89	5317.14	5345.84	1.24	ppb
Zirconium	90-1	487.71	488.09	504.37	493.39	1.93	ppb
Zirconium	91-1	487.06	494.64	496.97	492.89	1.05	ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCB01 Instrumnet Name : P7
Client Sample ID : CCB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:33:49 DataFile Name : 024CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	-0.49	0.00	-0.16	-0.22		ppb
Antimony	121-1	0.07	0.09	0.09	0.08	10.54	ppb
Arsenic	75-2	-0.01	0.01	-0.01	0.00		ppb
Barium	135-1	0.02	0.00	0.01	0.01	61.56	ppb
Barium	137-1	0.04	0.03	0.01	0.03	57.36	ppb
Beryllium	9-1	0.06	0.03	0.03	0.04	43.26	ppb
Bismuth	209-1				110		%
Bismuth	209-2				109		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.08	-0.05	-0.08	-0.07		ppb
Cadmium	106-1	-0.30	-0.54	-1.20	-0.68		ppb
Cadmium	111-1	0.02	-0.01	-0.06	-0.02		ppb
Calcium	43-1	-0.07	-4.58	-9.39	-4.68		ppb
Calcium	44-1	6.97	3.57	4.00	4.85	38.12	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.00	0.02	0.03	0.02	81.83	ppb
Cobalt	59-2	-0.01	-0.01	0.00	-0.01		ppb
Copper	63-2	0.64	0.58	0.61	0.61	5.19	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				109		%
Holmium	165-2				110		%
Indium	115-1				110		%
Indium	115-2				110		%
Iron	56-2	1.71	1.78	1.61	1.70	5.13	ppb
Iron	57-2	-0.71	-2.92	1.74	-0.63		ppb
Iron	54-2	1.52	1.97	0.84	1.45	39.32	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCB01 Instrumnet Name : P7
Client Sample ID : CCB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:33:49 DataFile Name : 024CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.09	0.07	0.08	0.08	8.84	ppb
Lead	207-1	0.13	0.12	0.08	0.11	22.42	ppb
Lead	208-1	0.11	0.08	0.08	0.09	18.31	ppb
Lithium	6-1				101		%
Magnesium	24-2	3.25	3.21	3.26	3.24	0.74	ppb
Manganese	55-2	0.14	0.16	0.13	0.14	13.26	ppb
Molybdenum	94-1	0.19	0.15	0.14	0.16	14.84	ppb
Molybdenum	95-1	0.17	0.08	0.11	0.12	36.19	ppb
Molybdenum	96-1	0.18	0.09	0.09	0.12	41.56	ppb
Molybdenum	97-1	0.16	0.10	0.10	0.12	29.20	ppb
Molybdenum	98-1	0.17	0.09	0.09	0.12	40.21	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.04	0.00	-0.04	-0.03		ppb
Phosphorus	31-2	-26.67	-20.78	-30.74	-26.06		ppb
Potassium	39-2	2.74	-1.87	-2.99	-0.71		ppb
Rhodium	103-1				107		%
Rhodium	103-2				110		%
Scandium	45-1				104		%
Scandium	45-2				104		%
Selenium	82-1	0.37	-0.18	1.38	0.52	151.42	ppb
Selenium	77-2	0.00	0.00	0.25	0.08	173.21	ppb
Selenium	78-2	-1.48	-1.15	-1.23	-1.29		ppb
Silicon	28-1	-28.04	-27.43	-28.45	-27.98		ppb
Silver	107-1	0.02	0.02	0.02	0.02	14.47	ppb
Silver	109-1	0.02	0.01	0.02	0.02	38.04	ppb
Sodium	23-2	18.74	18.59	18.28	18.54	1.28	ppb
Strontium	86-1	0.02	-0.04	0.03	0.00	1125.76	ppb
Strontium	88-1	0.01	0.00	0.00	0.00	117.36	ppb
Sulfur	34-1	-2346.72	-2137.42	-2316.74	-2266.96		ppb
Terbium	159-1				111		%
Terbium	159-2				112		%
Thallium	203-1	0.10	0.11	0.10	0.11	5.45	ppb
Thallium	205-1	0.11	0.10	0.09	0.10	8.68	ppb
Tin	118-1	0.07	0.07	0.04	0.06	25.53	ppb
Titanium	47-1	0.12	0.01	0.00	0.04	162.99	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCB01 Instrumnet Name : P7
Client Sample ID : CCB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:33:49 DataFile Name : 024CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.01	0.00	0.00	0.01	84.59	ppb
Vanadium	51-2	0.00	0.00	0.01	0.00	52.24	ppb
Yttrium	89-1				106		%
Yttrium	89-2				111		%
Zinc	66-2	0.15	0.25	-0.01	0.13	98.88	ppb
Zirconium	90-1	0.05	0.04	0.05	0.05	7.81	ppb
Zirconium	91-1	0.06	0.04	0.03	0.04	29.21	ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CRI Instrumnet Name : P7
Client Sample ID : CRI Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:37:07 DataFile Name : 025LLCC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	18.36	17.92	19.29	18.52	3.76	ppb
Antimony	121-1	1.97	2.02	2.04	2.01	1.71	ppb
Arsenic	75-2	1.20	1.19	0.90	1.10	15.71	ppb
Barium	135-1	9.47	9.34	9.58	9.47	1.26	ppb
Barium	137-1	9.58	9.74	9.94	9.75	1.88	ppb
Beryllium	9-1	1.04	1.07	1.00	1.04	3.38	ppb
Bismuth	209-1				111		%
Bismuth	209-2				109		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.75	0.82	1.08	0.88	19.84	ppb
Cadmium	106-1	0.89	1.45	-1.24	0.37	384.47	ppb
Cadmium	111-1	0.95	0.95	0.89	0.93	3.80	ppb
Calcium	43-1	545.39	576.98	572.63	565.00	3.03	ppb
Calcium	44-1	554.01	561.81	567.36	561.06	1.20	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.95	2.02	2.10	2.02	3.56	ppb
Cobalt	59-2	1.01	1.01	1.06	1.03	2.51	ppb
Copper	63-2	2.37	2.35	2.47	2.40	2.72	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				109		%
Holmium	165-2				109		%
Indium	115-1				109		%
Indium	115-2				110		%
Iron	56-2	55.47	53.73	54.06	54.42	1.70	ppb
Iron	57-2	53.99	53.91	54.44	54.11	0.52	ppb
Iron	54-2	54.42	56.01	56.30	55.58	1.83	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CRI Instrumnet Name : P7
Client Sample ID : CRI Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:37:07 DataFile Name : 025LLCC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	1.02	1.01	1.00	1.01	1.09	ppb
Lead	207-1	1.02	0.93	0.99	0.98	4.74	ppb
Lead	208-1	0.99	0.96	1.00	0.98	2.23	ppb
Lithium	6-1				100		%
Magnesium	24-2	480.74	488.92	486.76	485.48	0.87	ppb
Manganese	55-2	1.08	0.99	0.97	1.01	5.81	ppb
Molybdenum	94-1	5.79	5.86	6.05	5.90	2.35	ppb
Molybdenum	95-1	4.68	4.82	5.00	4.84	3.31	ppb
Molybdenum	96-1	4.84	5.02	5.03	4.96	2.19	ppb
Molybdenum	97-1	4.65	4.95	4.99	4.86	3.88	ppb
Molybdenum	98-1	4.93	4.93	4.82	4.89	1.31	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.03	1.00	0.96	1.00	3.18	ppb
Phosphorus	31-2	-3.81	-0.28	-2.28	-2.12		ppb
Potassium	39-2	483.11	489.02	492.01	488.05	0.93	ppb
Rhodium	103-1				107		%
Rhodium	103-2				109		%
Scandium	45-1				106		%
Scandium	45-2				106		%
Selenium	82-1	5.25	5.42	4.64	5.10	7.99	ppb
Selenium	77-2	4.31	7.40	4.61	5.44	31.33	ppb
Selenium	78-2	6.10	3.42	3.19	4.24	38.22	ppb
Silicon	28-1	-28.56	-28.87	-27.86	-28.43		ppb
Silver	107-1	0.99	1.00	0.92	0.97	4.57	ppb
Silver	109-1	1.02	0.97	0.97	0.98	2.79	ppb
Sodium	23-2	487.69	505.08	502.40	498.39	1.88	ppb
Strontium	86-1	0.94	1.01	0.93	0.96	4.26	ppb
Strontium	88-1	1.01	1.03	1.01	1.02	0.89	ppb
Sulfur	34-1	-2052.72	-2086.09	-1875.95	-2004.92		ppb
Terbium	159-1				111		%
Terbium	159-2				112		%
Thallium	203-1	1.00	1.00	1.00	1.00	0.38	ppb
Thallium	205-1	0.98	0.97	1.00	0.98	1.78	ppb
Tin	118-1	5.00	5.07	4.94	5.00	1.31	ppb
Titanium	47-1	4.78	4.87	4.91	4.85	1.32	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CRI Instrumnet Name : P7
Client Sample ID : CRI Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:37:07 DataFile Name : 025LLCC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.88	0.90	0.90	0.89	0.78	ppb
Vanadium	51-2	4.94	4.89	4.86	4.89	0.84	ppb
Yttrium	89-1				109		%
Yttrium	89-2				110		%
Zinc	66-2	4.62	4.59	5.19	4.80	7.04	ppb
Zirconium	90-1	0.96	1.00	0.98	0.98	2.07	ppb
Zirconium	91-1	1.01	0.93	0.91	0.95	5.42	ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : PB167465BL Instrumnet Name : P7
Client Sample ID : PB167465BL Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:40:29 DataFile Name : 026CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	-1.29	-1.32	-1.39	-1.33		ppb
Antimony	121-1	0.00	0.01	0.01	0.01	59.57	ppb
Arsenic	75-2	0.02	-0.01	0.00	0.00	391.29	ppb
Barium	135-1	-0.01	0.00	-0.01	-0.01		ppb
Barium	137-1	0.01	0.00	0.00	0.01	86.52	ppb
Beryllium	9-1	0.02	0.02	0.04	0.03	42.11	ppb
Bismuth	209-1				110		%
Bismuth	209-2				109		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.08	-0.05	-0.08	-0.07		ppb
Cadmium	106-1	-0.59	0.32	-0.30	-0.19		ppb
Cadmium	111-1	-0.03	0.02	-0.02	-0.01		ppb
Calcium	43-1	-2.34	7.11	1.35	2.04	233.58	ppb
Calcium	44-1	1.16	5.34	2.47	2.99	71.49	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.07	-0.09	-0.08	-0.08		ppb
Cobalt	59-2	-0.01	-0.02	-0.01	-0.01		ppb
Copper	63-2	0.31	0.26	0.30	0.29	9.11	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				108		%
Holmium	165-2				109		%
Indium	115-1				109		%
Indium	115-2				109		%
Iron	56-2	0.07	-0.21	0.04	-0.03		ppb
Iron	57-2	-6.95	-1.99	-2.72	-3.89		ppb
Iron	54-2	1.21	-0.07	1.08	0.74	94.76	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : PB167465BL Instrumnet Name : P7
Client Sample ID : PB167465BL Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:40:29 DataFile Name : 026CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	-0.01	0.01	-0.01	0.00		ppb
Lead	207-1	0.00	0.03	0.04	0.03	75.42	ppb
Lead	208-1	0.00	0.01	0.02	0.01	91.19	ppb
Lithium	6-1				100		%
Magnesium	24-2	0.62	0.78	0.90	0.77	18.14	ppb
Manganese	55-2	-0.52	-0.48	-0.49	-0.50		ppb
Molybdenum	94-1	0.01	0.01	0.01	0.01	24.34	ppb
Molybdenum	95-1	0.01	0.01	0.02	0.02	30.29	ppb
Molybdenum	96-1	0.02	0.01	0.00	0.01	78.09	ppb
Molybdenum	97-1	0.03	0.01	0.01	0.02	73.96	ppb
Molybdenum	98-1	0.01	0.01	0.02	0.01	22.73	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.05	-0.07	-0.09	-0.07		ppb
Phosphorus	31-2	-31.97	-17.47	-21.63	-23.69		ppb
Potassium	39-2	-14.62	-10.96	-11.95	-12.51		ppb
Rhodium	103-1				109		%
Rhodium	103-2				110		%
Scandium	45-1				106		%
Scandium	45-2				106		%
Selenium	82-1	0.22	-0.10	0.06	0.06	266.79	ppb
Selenium	77-2	0.26	0.00	0.00	0.09	173.21	ppb
Selenium	78-2	3.06	-1.02	-0.34	0.56	386.50	ppb
Silicon	28-1	-30.25	-28.79	-29.21	-29.42		ppb
Silver	107-1	0.00	0.00	0.01	0.01	34.84	ppb
Silver	109-1	0.00	0.00	0.01	0.00	44.05	ppb
Sodium	23-2	10.50	10.87	10.52	10.63	1.97	ppb
Strontium	86-1	-0.07	-0.05	0.00	-0.04		ppb
Strontium	88-1	0.00	0.00	0.00	0.00	99.69	ppb
Sulfur	34-1	-2179.89	-1941.63	-1898.82	-2006.78		ppb
Terbium	159-1				110		%
Terbium	159-2				112		%
Thallium	203-1	0.07	0.08	0.06	0.07	10.00	ppb
Thallium	205-1	0.07	0.07	0.07	0.07	4.58	ppb
Tin	118-1	0.01	0.00	-0.01	0.00	1153.65	ppb
Titanium	47-1	0.03	0.01	0.03	0.02	51.06	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : PB167465BL Instrumnet Name : P7
Client Sample ID : PB167465BL Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:40:29 DataFile Name : 026CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00	108.49	ppb
Vanadium	51-2	0.00	0.00	0.00	0.00	129.53	ppb
Yttrium	89-1				109		%
Yttrium	89-2				109		%
Zinc	66-2	-0.17	-0.13	0.03	-0.09		ppb
Zirconium	90-1	0.01	0.00	0.01	0.01	57.51	ppb
Zirconium	91-1	0.01	0.00	-0.01	0.00		ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : PB167465BS Instrumnet Name : P7
Client Sample ID : PB167465BS Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:43:55 DataFile Name : 027LCSS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	10065.44	10173.60	9962.83	10067.29	1.05	ppb
Antimony	121-1	509.08	508.58	503.26	506.97	0.64	ppb
Arsenic	75-2	510.53	512.14	508.86	510.51	0.32	ppb
Barium	135-1	2521.85	2513.27	2528.01	2521.04	0.29	ppb
Barium	137-1	2599.95	2525.70	2584.50	2570.05	1.52	ppb
Beryllium	9-1	504.59	512.31	516.47	511.12	1.18	ppb
Bismuth	209-1				110		%
Bismuth	209-2				107		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	511.39	497.19	510.43	506.34	1.57	ppb
Cadmium	106-1	504.37	501.07	507.30	504.25	0.62	ppb
Cadmium	111-1	512.21	505.70	509.46	509.12	0.64	ppb
Calcium	43-1	59679.46	59183.59	58424.35	59095.80	1.07	ppb
Calcium	44-1	56532.15	55723.91	54994.37	55750.14	1.38	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	509.81	510.21	511.93	510.65	0.22	ppb
Cobalt	59-2	507.18	501.36	507.55	505.36	0.69	ppb
Copper	63-2	5101.66	5090.31	5184.80	5125.59	1.01	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				111		%
Holmium	165-2				110		%
Indium	115-1				109		%
Indium	115-2				107		%
Iron	56-2	26646.73	26346.37	26334.63	26442.58	0.67	ppb
Iron	57-2	27219.05	27334.76	27567.14	27373.65	0.65	ppb
Iron	54-2	26379.04	26596.39	27207.99	26727.81	1.61	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : PB167465BS Instrumnet Name : P7
Client Sample ID : PB167465BS Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:43:55 DataFile Name : 027LCSS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2494.47	2537.32	2526.39	2519.40	0.88	ppb
Lead	207-1	2510.61	2541.36	2482.23	2511.40	1.18	ppb
Lead	208-1	2505.59	2563.93	2502.72	2524.08	1.37	ppb
Lithium	6-1				101		%
Magnesium	24-2	51013.59	50693.81	51391.52	51032.97	0.68	ppb
Manganese	55-2	4958.87	4995.54	5069.93	5008.11	1.13	ppb
Molybdenum	94-1	4966.25	5110.07	5026.67	5034.33	1.43	ppb
Molybdenum	95-1	4952.34	5108.71	4979.30	5013.45	1.67	ppb
Molybdenum	96-1	5003.37	5159.94	5086.44	5083.25	1.54	ppb
Molybdenum	97-1	4995.84	5034.62	4924.71	4985.06	1.12	ppb
Molybdenum	98-1	5005.66	5096.73	4969.64	5024.01	1.30	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	508.10	506.87	508.58	507.85	0.17	ppb
Phosphorus	31-2	10169.53	10067.64	10186.84	10141.34	0.64	ppb
Potassium	39-2	25567.95	25276.74	25427.24	25423.98	0.57	ppb
Rhodium	103-1				108		%
Rhodium	103-2				108		%
Scandium	45-1				107		%
Scandium	45-2				105		%
Selenium	82-1	499.74	515.08	510.27	508.36	1.54	ppb
Selenium	77-2	527.13	512.96	507.25	515.78	1.98	ppb
Selenium	78-2	508.09	506.62	523.41	512.71	1.81	ppb
Silicon	28-1	521.37	513.22	511.92	515.51	0.99	ppb
Silver	107-1	502.51	502.18	514.03	506.24	1.33	ppb
Silver	109-1	524.80	512.21	522.90	519.97	1.30	ppb
Sodium	23-2	52276.40	52051.51	52583.97	52303.96	0.51	ppb
Strontium	86-1	498.70	504.46	499.57	500.91	0.62	ppb
Strontium	88-1	502.83	506.71	508.05	505.87	0.54	ppb
Sulfur	34-1	8670.32	8510.06	8098.38	8426.26	3.50	ppb
Terbium	159-1				112		%
Terbium	159-2				112		%
Thallium	203-1	500.34	522.77	507.66	510.25	2.24	ppb
Thallium	205-1	505.34	508.80	502.58	505.57	0.62	ppb
Tin	118-1	507.36	504.13	513.28	508.26	0.91	ppb
Titanium	47-1	5082.54	5108.24	5008.37	5066.38	1.02	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : PB167465BS Instrumnet Name : P7
Client Sample ID : PB167465BS Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:43:55 DataFile Name : 027LCSS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	492.56	506.76	489.85	496.39	1.83	ppb
Vanadium	51-2	506.78	509.30	512.15	509.41	0.53	ppb
Yttrium	89-1				110		%
Yttrium	89-2				108		%
Zinc	66-2	5150.61	5109.67	5159.83	5140.04	0.52	ppb
Zirconium	90-1	495.82	503.16	494.65	497.88	0.93	ppb
Zirconium	91-1	498.37	508.28	500.09	502.25	1.05	ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-01 Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:46:45 DataFile Name : 028AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1470.16	1464.85	1472.48	1469.16	0.27	ppb
Antimony	121-1	1.65	1.66	1.70	1.67	1.73	ppb
Arsenic	75-2	0.71	0.85	0.97	0.85	15.73	ppb
Barium	135-1	117.35	116.56	118.02	117.31	0.62	ppb
Barium	137-1	118.61	118.43	120.15	119.06	0.79	ppb
Beryllium	9-1	0.04	0.01	0.00	0.02	131.66	ppb
Bismuth	209-1				121		%
Bismuth	209-2				118		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.11	0.22	0.09	0.14	51.62	ppb
Cadmium	106-1	-0.32	-1.07	-1.13	-0.84		ppb
Cadmium	111-1	0.01	-0.05	-0.05	-0.03		ppb
Calcium	43-1	100775.97	103576.79	104566.47	102973.08	1.91	ppb
Calcium	44-1	101927.21	102814.14	103345.01	102695.46	0.70	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.57	0.60	0.57	0.58	2.52	ppb
Cobalt	59-2	0.17	0.16	0.17	0.17	5.10	ppb
Copper	63-2	0.29	0.27	0.24	0.27	9.47	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				122		%
Holmium	165-2				120		%
Indium	115-1				121		%
Indium	115-2				119		%
Iron	56-2	62.89	62.15	62.49	62.51	0.59	ppb
Iron	57-2	549.27	565.72	564.00	559.66	1.62	ppb
Iron	54-2	60.28	61.95	60.72	60.98	1.41	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-01 Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:46:45 DataFile Name : 028AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.11	0.06	0.04	0.07	48.60	ppb
Lead	207-1	0.08	0.08	0.08	0.08	4.03	ppb
Lead	208-1	0.09	0.07	0.06	0.08	19.97	ppb
Lithium	6-1				112		%
Magnesium	24-2	315.64	317.17	313.03	315.28	0.67	ppb
Manganese	55-2	4.24	4.08	4.25	4.19	2.17	ppb
Molybdenum	94-1	63.28	64.13	64.21	63.88	0.81	ppb
Molybdenum	95-1	78.04	77.70	78.28	78.01	0.38	ppb
Molybdenum	96-1	76.40	75.80	76.73	76.31	0.61	ppb
Molybdenum	97-1	78.89	78.31	79.95	79.05	1.05	ppb
Molybdenum	98-1	79.01	77.50	78.75	78.42	1.03	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	9.88	10.28	10.16	10.11	2.00	ppb
Phosphorus	31-2	9.31	-6.83	3.97	2.15	382.71	ppb
Potassium	39-2	22998.79	23087.64	22861.25	22982.56	0.50	ppb
Rhodium	103-1				118		%
Rhodium	103-2				121		%
Scandium	45-1				118		%
Scandium	45-2				118		%
Selenium	82-1	1.20	0.88	1.75	1.28	34.60	ppb
Selenium	77-2	1.61	0.23	0.23	0.69	115.40	ppb
Selenium	78-2	-0.35	-1.02	-1.87	-1.08		ppb
Silicon	28-1	480.25	486.09	492.71	486.35	1.28	ppb
Silver	107-1	0.01	0.01	0.01	0.01	26.85	ppb
Silver	109-1	0.01	0.01	0.01	0.01	15.01	ppb
Sodium	23-2	19972.57	19994.43	20050.94	20005.98	0.20	ppb
Strontium	86-1	551.39	547.44	552.33	550.39	0.47	ppb
Strontium	88-1	567.26	551.00	555.20	557.82	1.51	ppb
Sulfur	34-1	1164.75	1094.52	1475.74	1245.00	16.30	ppb
Terbium	159-1				124		%
Terbium	159-2				122		%
Thallium	203-1	0.08	0.07	0.05	0.07	18.82	ppb
Thallium	205-1	0.07	0.07	0.06	0.07	6.61	ppb
Tin	118-1	0.26	0.25	0.26	0.26	2.46	ppb
Titanium	47-1	0.36	0.22	0.34	0.30	25.91	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-01 Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:46:45 DataFile Name : 028AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.01	0.01	0.01	0.01	9.13	ppb
Vanadium	51-2	3.79	3.69	3.63	3.71	2.19	ppb
Yttrium	89-1				120		%
Yttrium	89-2				121		%
Zinc	66-2	0.68	0.61	0.46	0.58	19.62	ppb
Zirconium	90-1	0.03	0.03	0.02	0.03	8.36	ppb
Zirconium	91-1	0.04	0.02	0.03	0.03	34.71	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-01DUP Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225DUP Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:49:57 DataFile Name : 029AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1464.84	1451.31	1478.03	1464.73	0.91	ppb
Antimony	121-1	1.65	1.68	1.68	1.67	1.06	ppb
Arsenic	75-2	0.91	0.95	0.95	0.93	2.57	ppb
Barium	135-1	118.26	119.85	117.67	118.59	0.96	ppb
Barium	137-1	119.26	121.76	119.77	120.26	1.10	ppb
Beryllium	9-1	0.00	0.01	0.04	0.02	103.92	ppb
Bismuth	209-1				121		%
Bismuth	209-2				117		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.25	0.22	0.14	0.20	28.19	ppb
Cadmium	106-1	0.06	-0.30	-0.20	-0.15		ppb
Cadmium	111-1	0.03	-0.01	0.00	0.00	355.54	ppb
Calcium	43-1	100481.33	103348.27	103498.74	102442.78	1.66	ppb
Calcium	44-1	100952.35	101533.77	101583.20	101356.44	0.35	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.36	0.40	0.44	0.40	11.09	ppb
Cobalt	59-2	0.11	0.11	0.11	0.11	0.20	ppb
Copper	63-2	0.19	0.21	0.24	0.21	10.67	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				124		%
Holmium	165-2				120		%
Indium	115-1				123		%
Indium	115-2				122		%
Iron	56-2	61.34	61.60	60.85	61.26	0.62	ppb
Iron	57-2	550.10	558.02	543.25	550.46	1.34	ppb
Iron	54-2	57.03	57.83	56.58	57.15	1.11	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-01DUP Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225DUP Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:49:57 DataFile Name : 029AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.01	0.04	0.05	0.03	59.06	ppb
Lead	207-1	0.06	0.06	0.06	0.06	1.64	ppb
Lead	208-1	0.04	0.05	0.05	0.04	10.55	ppb
Lithium	6-1				105		%
Magnesium	24-2	320.90	315.14	314.41	316.82	1.12	ppb
Manganese	55-2	5.41	5.28	5.24	5.31	1.70	ppb
Molybdenum	94-1	63.29	62.56	63.65	63.17	0.88	ppb
Molybdenum	95-1	77.82	76.72	77.65	77.40	0.77	ppb
Molybdenum	96-1	76.05	74.99	75.99	75.68	0.79	ppb
Molybdenum	97-1	77.85	76.59	78.81	77.75	1.43	ppb
Molybdenum	98-1	77.50	77.69	77.85	77.68	0.23	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	8.97	9.40	9.03	9.13	2.56	ppb
Phosphorus	31-2	10.59	13.78	14.78	13.05	16.78	ppb
Potassium	39-2	22988.59	22812.86	23297.01	23032.82	1.06	ppb
Rhodium	103-1				121		%
Rhodium	103-2				122		%
Scandium	45-1				119		%
Scandium	45-2				122		%
Selenium	82-1	1.05	1.24	1.27	1.19	10.02	ppb
Selenium	77-2	1.13	0.90	0.45	0.83	41.74	ppb
Selenium	78-2	-1.57	-0.80	-0.67	-1.01		ppb
Silicon	28-1	474.81	494.53	490.06	486.46	2.12	ppb
Silver	107-1	0.00	0.00	0.00	0.00	100.22	ppb
Silver	109-1	0.00	0.01	0.01	0.00	23.49	ppb
Sodium	23-2	19744.49	19876.68	19896.37	19839.18	0.42	ppb
Strontium	86-1	549.31	545.13	554.43	549.62	0.85	ppb
Strontium	88-1	562.36	557.84	561.64	560.62	0.43	ppb
Sulfur	34-1	1460.51	1784.77	1967.56	1737.61	14.78	ppb
Terbium	159-1				125		%
Terbium	159-2				122		%
Thallium	203-1	0.05	0.06	0.05	0.05	8.49	ppb
Thallium	205-1	0.04	0.04	0.04	0.04	4.04	ppb
Tin	118-1	0.24	0.22	0.23	0.23	3.91	ppb
Titanium	47-1	0.27	0.31	0.31	0.30	7.49	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-01DUP Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225DUP Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:49:57 DataFile Name : 029AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.01	0.01	0.01	20.52	ppb
Vanadium	51-2	3.69	3.66	3.77	3.71	1.52	ppb
Yttrium	89-1				123		%
Yttrium	89-2				124		%
Zinc	66-2	0.60	0.42	0.29	0.44	35.35	ppb
Zirconium	90-1	0.02	0.02	0.02	0.02	10.26	ppb
Zirconium	91-1	0.02	0.00	0.01	0.01	110.92	ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-01LX5 Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225L Dilution Factor : 5
Date & Time Acquired : 2025-04-04 15:53:13 DataFile Name : 030AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	300.08	302.41	304.61	302.37	0.75	ppb
Antimony	121-1	0.35	0.34	0.35	0.35	1.38	ppb
Arsenic	75-2	0.18	0.16	0.20	0.18	12.02	ppb
Barium	135-1	24.32	24.74	23.28	24.11	3.13	ppb
Barium	137-1	24.24	24.61	24.23	24.36	0.88	ppb
Beryllium	9-1	0.04	-0.01	0.02	0.02	160.14	ppb
Bismuth	209-1				112		%
Bismuth	209-2				110		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.08	0.04	0.01	-0.01		ppb
Cadmium	106-1	0.59	-1.07	-0.46	-0.31		ppb
Cadmium	111-1	0.05	-0.07	-0.03	-0.02		ppb
Calcium	43-1	21979.72	21733.89	22141.39	21951.67	0.93	ppb
Calcium	44-1	20491.98	20437.26	21006.93	20645.39	1.52	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.12	0.17	0.11	0.13	23.31	ppb
Cobalt	59-2	0.00	0.01	0.01	0.01	78.30	ppb
Copper	63-2	0.28	0.26	0.25	0.26	5.10	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				112		%
Holmium	165-2				112		%
Indium	115-1				113		%
Indium	115-2				113		%
Iron	56-2	13.89	13.69	13.87	13.82	0.79	ppb
Iron	57-2	112.29	117.21	118.49	116.00	2.82	ppb
Iron	54-2	11.42	11.23	13.56	12.07	10.71	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-01LX5 Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225L Dilution Factor : 5
Date & Time Acquired : 2025-04-04 15:53:13 DataFile Name : 030AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.02	0.00	-0.02	0.00		ppb
Lead	207-1	0.03	0.01	0.03	0.02	37.18	ppb
Lead	208-1	0.01	0.01	0.01	0.01	51.46	ppb
Lithium	6-1				95		%
Magnesium	24-2	64.43	64.05	65.34	64.60	1.03	ppb
Manganese	55-2	0.90	0.94	1.01	0.95	6.12	ppb
Molybdenum	94-1	12.56	13.00	13.16	12.91	2.42	ppb
Molybdenum	95-1	15.71	15.46	15.90	15.69	1.43	ppb
Molybdenum	96-1	15.16	15.33	15.72	15.41	1.86	ppb
Molybdenum	97-1	15.62	15.39	16.00	15.67	1.97	ppb
Molybdenum	98-1	15.60	15.42	15.60	15.54	0.68	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	2.08	2.28	2.05	2.14	5.73	ppb
Phosphorus	31-2	-21.20	-28.15	-22.80	-24.05		ppb
Potassium	39-2	4639.19	4678.06	4647.53	4654.93	0.44	ppb
Rhodium	103-1				113		%
Rhodium	103-2				114		%
Scandium	45-1				110		%
Scandium	45-2				112		%
Selenium	82-1	0.29	-0.74	0.01	-0.15		ppb
Selenium	77-2	0.00	0.48	0.00	0.16	173.21	ppb
Selenium	78-2	0.09	1.04	0.29	0.47	105.95	ppb
Silicon	28-1	91.69	88.28	91.76	90.58	2.19	ppb
Silver	107-1	0.00	0.00	0.00	0.00		ppb
Silver	109-1	0.00	0.00	0.00	0.00	12.31	ppb
Sodium	23-2	3998.17	4043.53	4023.02	4021.57	0.56	ppb
Strontium	86-1	109.99	111.12	111.92	111.01	0.87	ppb
Strontium	88-1	111.37	113.10	110.69	111.72	1.11	ppb
Sulfur	34-1	-1080.00	-1271.94	-1058.25	-1136.73		ppb
Terbium	159-1				115		%
Terbium	159-2				113		%
Thallium	203-1	0.03	0.03	0.03	0.03	11.56	ppb
Thallium	205-1	0.02	0.02	0.03	0.03	14.20	ppb
Tin	118-1	0.06	0.05	0.05	0.05	16.64	ppb
Titanium	47-1	0.08	0.04	0.07	0.06	35.40	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-01LX5 Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225L Dilution Factor : 5
Date & Time Acquired : 2025-04-04 15:53:13 DataFile Name : 030AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00	32.55	ppb
Vanadium	51-2	0.75	0.77	0.82	0.78	4.52	ppb
Yttrium	89-1				115		%
Yttrium	89-2				116		%
Zinc	66-2	0.31	0.34	0.36	0.34	8.64	ppb
Zirconium	90-1	0.02	0.02	0.02	0.02	27.86	ppb
Zirconium	91-1	0.01	0.02	0.00	0.01	74.55	ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-02 Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225MS Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:56:27 DataFile Name : 031AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	10143.88	9897.77	9870.65	9970.77	1.51	ppb
Antimony	121-1	469.06	478.38	475.12	474.19	1.00	ppb
Arsenic	75-2	0.86	0.89	1.03	0.93	10.15	ppb
Barium	135-1	2196.98	2273.93	2244.54	2238.48	1.73	ppb
Barium	137-1	2204.37	2280.70	2238.07	2241.05	1.71	ppb
Beryllium	9-1	494.08	494.47	484.10	490.88	1.20	ppb
Bismuth	209-1				122		%
Bismuth	209-2				116		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	439.21	459.88	452.07	450.39	2.32	ppb
Cadmium	106-1	454.44	465.60	466.27	462.11	1.44	ppb
Cadmium	111-1	454.81	469.34	459.58	461.24	1.61	ppb
Calcium	43-1	148048.41	144609.23	146142.77	146266.80	1.18	ppb
Calcium	44-1	145098.26	144626.79	142540.43	144088.50	0.94	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	461.23	452.94	454.95	456.38	0.95	ppb
Cobalt	59-2	469.83	463.03	457.00	463.29	1.38	ppb
Copper	63-2	4241.99	4173.11	4177.00	4197.37	0.92	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				124		%
Holmium	165-2				120		%
Indium	115-1				123		%
Indium	115-2				119		%
Iron	56-2	22283.75	21972.27	21578.02	21944.68	1.61	ppb
Iron	57-2	23127.37	22866.92	22936.90	22977.06	0.59	ppb
Iron	54-2	22001.47	22092.45	22008.88	22034.26	0.23	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-02 Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225MS Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:56:27 DataFile Name : 031AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2330.06	2310.92	2395.55	2345.51	1.89	ppb
Lead	207-1	2302.11	2314.54	2373.35	2330.00	1.63	ppb
Lead	208-1	2327.00	2320.07	2358.21	2335.09	0.87	ppb
Lithium	6-1				107		%
Magnesium	24-2	47005.80	46127.20	46795.39	46642.79	0.98	ppb
Manganese	55-2	4209.87	4212.82	4145.26	4189.32	0.91	ppb
Molybdenum	94-1	2294.55	2299.36	2246.33	2280.08	1.29	ppb
Molybdenum	95-1	1730.78	1772.23	1754.03	1752.35	1.19	ppb
Molybdenum	96-1	1814.50	1819.21	1812.77	1815.49	0.18	ppb
Molybdenum	97-1	1771.80	1743.62	1764.82	1760.08	0.83	ppb
Molybdenum	98-1	1775.06	1779.26	1752.79	1769.03	0.80	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	463.21	462.66	464.56	463.48	0.21	ppb
Phosphorus	31-2	9.97	7.68	3.58	7.08	45.74	ppb
Potassium	39-2	40977.42	40682.80	40655.80	40772.01	0.44	ppb
Rhodium	103-1				120		%
Rhodium	103-2				118		%
Scandium	45-1				120		%
Scandium	45-2				120		%
Selenium	82-1	477.60	483.62	481.62	480.94	0.64	ppb
Selenium	77-2	514.67	461.68	491.30	489.21	5.43	ppb
Selenium	78-2	498.40	481.76	488.62	489.59	1.71	ppb
Silicon	28-1	443.17	434.69	436.66	438.17	1.01	ppb
Silver	107-1	78.84	80.40	79.52	79.59	0.98	ppb
Silver	109-1	77.71	80.06	78.43	78.73	1.53	ppb
Sodium	23-2	64143.23	64953.91	64357.86	64485.00	0.65	ppb
Strontium	86-1	1024.62	1033.49	1042.05	1033.39	0.84	ppb
Strontium	88-1	1050.29	1039.77	1037.65	1042.57	0.65	ppb
Sulfur	34-1	2029.82	2006.15	2182.79	2072.92	4.63	ppb
Terbium	159-1				126		%
Terbium	159-2				123		%
Thallium	203-1	456.52	470.43	473.77	466.91	1.96	ppb
Thallium	205-1	456.19	459.40	469.42	461.67	1.49	ppb
Tin	118-1	422.64	434.36	435.21	430.74	1.63	ppb
Titanium	47-1	1.86	1.79	1.95	1.87	4.34	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-02 Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225MS Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:56:27 DataFile Name : 031AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	458.94	457.81	461.44	459.40	0.40	ppb
Vanadium	51-2	479.03	475.38	478.75	477.72	0.43	ppb
Yttrium	89-1				125		%
Yttrium	89-2				123		%
Zinc	66-2	4267.30	4229.34	4110.50	4202.38	1.95	ppb
Zirconium	90-1	459.31	458.28	458.11	458.57	0.14	ppb
Zirconium	91-1	460.96	461.48	462.06	461.50	0.12	ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-03 Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225MSD Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:59:19 DataFile Name : 032AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	10130.77	10312.10	10133.80	10192.22	1.02	ppb
Antimony	121-1	489.00	488.27	489.11	488.79	0.09	ppb
Arsenic	75-2	0.81	1.07	1.16	1.01	18.28	ppb
Barium	135-1	2281.98	2248.39	2223.05	2251.14	1.31	ppb
Barium	137-1	2297.07	2288.12	2265.06	2283.42	0.72	ppb
Beryllium	9-1	493.75	493.01	496.92	494.56	0.42	ppb
Bismuth	209-1				122		%
Bismuth	209-2				116		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	451.87	467.83	460.38	460.03	1.74	ppb
Cadmium	106-1	476.96	469.96	466.09	471.00	1.17	ppb
Cadmium	111-1	473.32	470.75	473.03	472.37	0.30	ppb
Calcium	43-1	140594.28	148233.96	145315.89	144714.71	2.66	ppb
Calcium	44-1	142837.55	142831.35	144957.49	143542.13	0.85	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	467.78	463.39	463.48	464.88	0.54	ppb
Cobalt	59-2	467.83	460.37	465.63	464.61	0.82	ppb
Copper	63-2	4309.19	4300.83	4264.72	4291.58	0.55	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				123		%
Holmium	165-2				120		%
Indium	115-1				120		%
Indium	115-2				119		%
Iron	56-2	22285.84	22557.90	22298.27	22380.67	0.69	ppb
Iron	57-2	23481.69	23341.71	23386.55	23403.32	0.31	ppb
Iron	54-2	22438.82	22117.36	22165.45	22240.54	0.78	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-03 Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225MSD Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:59:19 DataFile Name : 032AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2418.98	2424.14	2370.90	2404.67	1.22	ppb
Lead	207-1	2402.16	2413.83	2386.69	2400.89	0.57	ppb
Lead	208-1	2413.64	2405.05	2390.52	2403.07	0.49	ppb
Lithium	6-1				107		%
Magnesium	24-2	47384.82	46393.81	46517.92	46765.52	1.15	ppb
Manganese	55-2	4306.19	4254.82	4240.01	4267.01	0.81	ppb
Molybdenum	94-1	2310.19	2318.23	2330.20	2319.54	0.43	ppb
Molybdenum	95-1	1767.24	1751.46	1768.93	1762.54	0.55	ppb
Molybdenum	96-1	1810.76	1836.87	1829.41	1825.68	0.74	ppb
Molybdenum	97-1	1759.06	1797.87	1773.82	1776.92	1.10	ppb
Molybdenum	98-1	1797.96	1803.00	1791.95	1797.64	0.31	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	473.95	471.52	471.44	472.30	0.30	ppb
Phosphorus	31-2	0.98	-1.96	2.32	0.45	490.75	ppb
Potassium	39-2	41911.97	41587.86	42372.73	41957.52	0.94	ppb
Rhodium	103-1				120		%
Rhodium	103-2				120		%
Scandium	45-1				120		%
Scandium	45-2				120		%
Selenium	82-1	487.90	492.68	489.85	490.14	0.49	ppb
Selenium	77-2	519.10	470.68	500.11	496.63	4.91	ppb
Selenium	78-2	485.30	483.78	491.67	486.92	0.86	ppb
Silicon	28-1	422.06	445.33	454.75	440.71	3.82	ppb
Silver	107-1	81.46	80.65	81.13	81.08	0.50	ppb
Silver	109-1	79.98	80.57	79.96	80.17	0.44	ppb
Sodium	23-2	65049.89	63948.22	63930.23	64309.45	1.00	ppb
Strontium	86-1	1027.76	1047.54	1046.06	1040.45	1.06	ppb
Strontium	88-1	1061.46	1070.92	1084.57	1072.31	1.08	ppb
Sulfur	34-1	1658.39	1809.11	1801.94	1756.48	4.84	ppb
Terbium	159-1				125		%
Terbium	159-2				121		%
Thallium	203-1	477.64	478.74	463.59	473.32	1.78	ppb
Thallium	205-1	465.85	474.71	459.85	466.80	1.60	ppb
Tin	118-1	446.24	442.62	441.66	443.51	0.54	ppb
Titanium	47-1	1.77	1.92	1.63	1.77	8.15	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-03 Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225MSD Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:59:19 DataFile Name : 032AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	466.62	462.61	469.84	466.35	0.78	ppb
Vanadium	51-2	490.43	483.93	486.99	487.12	0.67	ppb
Yttrium	89-1				124		%
Yttrium	89-2				123		%
Zinc	66-2	4363.96	4303.64	4299.27	4322.29	0.84	ppb
Zirconium	90-1	463.00	470.72	468.17	467.30	0.84	ppb
Zirconium	91-1	466.18	473.88	469.06	469.71	0.83	ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-01A Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225A Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:02:08 DataFile Name : 033AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	10035.80	10394.76	10251.86	10227.47	1.77	ppb
Antimony	121-1	480.22	478.95	482.47	480.55	0.37	ppb
Arsenic	75-2	1.04	1.00	1.27	1.10	13.16	ppb
Barium	135-1	2263.52	2211.88	2230.64	2235.34	1.17	ppb
Barium	137-1	2299.84	2236.08	2271.01	2268.98	1.41	ppb
Beryllium	9-1	501.21	504.69	505.49	503.80	0.45	ppb
Bismuth	209-1				123		%
Bismuth	209-2				117		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	444.06	444.13	447.92	445.37	0.50	ppb
Cadmium	106-1	464.95	464.60	467.37	465.64	0.32	ppb
Cadmium	111-1	464.86	462.73	465.02	464.21	0.28	ppb
Calcium	43-1	141055.14	142501.82	148297.05	143951.34	2.66	ppb
Calcium	44-1	141952.80	144612.67	143366.72	143310.73	0.93	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	463.36	462.45	463.34	463.05	0.11	ppb
Cobalt	59-2	472.66	465.71	464.15	467.51	0.97	ppb
Copper	63-2	4327.80	4316.00	4200.60	4281.47	1.64	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				125		%
Holmium	165-2				122		%
Indium	115-1				121		%
Indium	115-2				118		%
Iron	56-2	22195.12	22072.41	21922.23	22063.25	0.62	ppb
Iron	57-2	23339.55	23356.15	23092.66	23262.79	0.63	ppb
Iron	54-2	22453.52	22319.14	22483.72	22418.79	0.39	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-01A Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225A Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:02:08 DataFile Name : 033AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2379.70	2416.46	2393.46	2396.54	0.78	ppb
Lead	207-1	2387.67	2419.68	2392.77	2400.04	0.72	ppb
Lead	208-1	2377.69	2406.30	2412.05	2398.68	0.77	ppb
Lithium	6-1				104		%
Magnesium	24-2	46961.70	46797.88	46882.20	46880.59	0.17	ppb
Manganese	55-2	4260.85	4265.69	4239.26	4255.27	0.33	ppb
Molybdenum	94-1	2343.48	2339.22	2362.41	2348.37	0.53	ppb
Molybdenum	95-1	1780.08	1781.68	1811.45	1791.07	0.99	ppb
Molybdenum	96-1	1834.23	1851.76	1853.36	1846.45	0.57	ppb
Molybdenum	97-1	1805.63	1788.57	1804.59	1799.59	0.53	ppb
Molybdenum	98-1	1799.82	1794.43	1812.68	1802.31	0.52	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	470.69	469.95	466.50	469.04	0.48	ppb
Phosphorus	31-2	-1.28	7.66	-1.66	1.57	335.47	ppb
Potassium	39-2	41443.72	41449.87	41655.75	41516.44	0.29	ppb
Rhodium	103-1				121		%
Rhodium	103-2				120		%
Scandium	45-1				118		%
Scandium	45-2				120		%
Selenium	82-1	488.03	488.89	498.66	491.86	1.20	ppb
Selenium	77-2	475.29	498.50	510.06	494.62	3.58	ppb
Selenium	78-2	486.23	499.06	510.78	498.69	2.46	ppb
Silicon	28-1	418.02	427.61	442.39	429.34	2.86	ppb
Silver	107-1	80.15	79.63	79.81	79.86	0.33	ppb
Silver	109-1	78.71	78.36	78.85	78.64	0.32	ppb
Sodium	23-2	64207.49	64570.10	64943.75	64573.78	0.57	ppb
Strontium	86-1	1052.73	1044.63	1079.65	1059.00	1.73	ppb
Strontium	88-1	1063.66	1050.86	1054.82	1056.44	0.62	ppb
Sulfur	34-1	1569.39	1642.10	1810.17	1673.88	7.38	ppb
Terbium	159-1				128		%
Terbium	159-2				122		%
Thallium	203-1	470.98	479.97	479.67	476.88	1.07	ppb
Thallium	205-1	466.74	469.08	470.34	468.72	0.39	ppb
Tin	118-1	430.66	431.09	435.80	432.52	0.66	ppb
Titanium	47-1	1.58	1.80	1.88	1.75	8.76	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-01A Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225A Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:02:08 DataFile Name : 033AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	459.63	463.69	463.80	462.37	0.51	ppb
Vanadium	51-2	485.95	481.30	485.36	484.20	0.52	ppb
Yttrium	89-1				123		%
Yttrium	89-2				122		%
Zinc	66-2	4309.56	4333.88	4398.81	4347.42	1.06	ppb
Zirconium	90-1	469.40	472.91	468.04	470.12	0.54	ppb
Zirconium	91-1	469.56	468.35	474.95	470.95	0.75	ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCV02 Instrumnet Name : P7
Client Sample ID : CCV02 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:10:17 DataFile Name : 035CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	49661.02	49859.11	48341.71	49287.28	1.67	ppb
Antimony	121-1	488.73	499.88	502.69	497.10	1.49	ppb
Arsenic	75-2	496.69	491.89	496.51	495.03	0.55	ppb
Barium	135-1	2435.08	2503.28	2495.51	2477.96	1.51	ppb
Barium	137-1	2389.12	2514.10	2465.32	2456.18	2.56	ppb
Beryllium	9-1	513.43	514.63	504.14	510.73	1.12	ppb
Bismuth	209-1				111		%
Bismuth	209-2				107		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	465.56	489.77	479.16	478.17	2.54	ppb
Cadmium	106-1	467.42	495.48	493.43	485.44	3.22	ppb
Cadmium	111-1	463.53	488.59	482.77	478.30	2.74	ppb
Calcium	43-1	272444.13	267155.31	275745.01	271781.49	1.59	ppb
Calcium	44-1	269294.82	265958.01	267869.24	267707.36	0.63	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	499.06	503.86	492.56	498.49	1.14	ppb
Cobalt	59-2	483.74	490.42	472.95	482.37	1.83	ppb
Copper	63-2	4785.88	4781.79	4718.73	4762.14	0.79	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				116		%
Holmium	165-2				115		%
Indium	115-1				112		%
Indium	115-2				112		%
Iron	56-2	127815.12	127393.93	126692.41	127300.49	0.45	ppb
Iron	57-2	125492.21	128298.52	124036.00	125942.24	1.72	ppb
Iron	54-2	126134.32	128410.12	125454.26	126666.24	1.22	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCV02 Instrumnet Name : P7
Client Sample ID : CCV02 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:10:17 DataFile Name : 035CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2497.97	2522.93	2525.14	2515.34	0.60	ppb
Lead	207-1	2480.25	2460.58	2488.67	2476.50	0.58	ppb
Lead	208-1	2511.71	2520.92	2514.08	2515.57	0.19	ppb
Lithium	6-1				97		%
Magnesium	24-2	247512.82	250527.23	249943.40	249327.82	0.64	ppb
Manganese	55-2	4827.50	4901.29	4782.06	4836.95	1.24	ppb
Molybdenum	94-1	5069.29	4994.26	5204.06	5089.20	2.09	ppb
Molybdenum	95-1	5083.25	5082.72	5173.37	5113.11	1.02	ppb
Molybdenum	96-1	5097.77	5096.67	5173.24	5122.56	0.86	ppb
Molybdenum	97-1	5117.13	5119.59	5202.67	5146.46	0.95	ppb
Molybdenum	98-1	5245.98	5027.10	5221.18	5164.75	2.32	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	477.93	481.92	468.84	476.23	1.41	ppb
Phosphorus	31-2	9666.48	9750.86	9550.72	9656.02	1.04	ppb
Potassium	39-2	125641.20	126884.93	124847.43	125791.19	0.82	ppb
Rhodium	103-1				108		%
Rhodium	103-2				111		%
Scandium	45-1				112		%
Scandium	45-2				116		%
Selenium	82-1	465.92	463.58	479.36	469.62	1.81	ppb
Selenium	77-2	497.34	474.51	497.56	489.80	2.70	ppb
Selenium	78-2	477.18	478.65	480.38	478.73	0.33	ppb
Silicon	28-1	1480.03	1449.03	1512.00	1480.35	2.13	ppb
Silver	107-1	474.01	496.49	492.23	487.58	2.45	ppb
Silver	109-1	469.51	497.08	490.56	485.72	2.97	ppb
Sodium	23-2	247879.19	250412.32	246904.38	248398.63	0.73	ppb
Strontium	86-1	4939.41	4938.80	5032.17	4970.13	1.08	ppb
Strontium	88-1	5063.65	4954.48	5088.31	5035.48	1.41	ppb
Sulfur	34-1	8186.05	7834.45	8263.36	8094.62	2.82	ppb
Terbium	159-1				117		%
Terbium	159-2				117		%
Thallium	203-1	501.06	512.42	513.90	509.13	1.38	ppb
Thallium	205-1	512.77	502.13	507.98	507.63	1.05	ppb
Tin	118-1	459.65	477.50	476.45	471.20	2.13	ppb
Titanium	47-1	4837.93	4805.98	4910.89	4851.60	1.11	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCV02 Instrumnet Name : P7
Client Sample ID : CCV02 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:10:17 DataFile Name : 035CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	504.57	496.48	518.53	506.53	2.20	ppb
Vanadium	51-2	501.61	506.54	497.89	502.02	0.86	ppb
Yttrium	89-1				115		%
Yttrium	89-2				117		%
Zinc	66-2	4808.42	4798.27	4692.25	4766.32	1.35	ppb
Zirconium	90-1	515.14	519.26	523.61	519.34	0.82	ppb
Zirconium	91-1	514.88	511.65	522.23	516.25	1.05	ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCB02 Instrumnet Name : P7
Client Sample ID : CCB02 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:15:04 DataFile Name : 036CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	-1.45	-1.03	-1.15	-1.21		ppb
Antimony	121-1	0.05	0.06	0.06	0.06	9.91	ppb
Arsenic	75-2	0.01	-0.02	-0.03	-0.01		ppb
Barium	135-1	0.02	0.02	0.01	0.02	22.87	ppb
Barium	137-1	0.02	0.02	0.04	0.03	28.74	ppb
Beryllium	9-1	0.05	0.03	0.08	0.05	40.65	ppb
Bismuth	209-1				111		%
Bismuth	209-2				109		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.01	-0.11	-0.08	-0.06		ppb
Cadmium	106-1	-1.84	-1.50	-2.08	-1.81		ppb
Cadmium	111-1	-0.10	-0.08	-0.13	-0.10		ppb
Calcium	43-1	1.67	3.75	2.73	2.72	38.22	ppb
Calcium	44-1	10.44	9.88	12.24	10.85	11.36	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.39	0.41	0.40	0.40	3.05	ppb
Cobalt	59-2	-0.01	-0.02	-0.02	-0.01		ppb
Copper	63-2	0.37	0.39	0.33	0.36	9.36	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				110		%
Holmium	165-2				109		%
Indium	115-1				112		%
Indium	115-2				112		%
Iron	56-2	2.75	2.65	2.29	2.56	9.27	ppb
Iron	57-2	-0.24	1.04	0.11	0.30	218.75	ppb
Iron	54-2	2.87	5.30	2.45	3.54	43.59	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCB02 Instrumnet Name : P7
Client Sample ID : CCB02 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:15:04 DataFile Name : 036CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.00	0.01	0.02	0.01	155.53	ppb
Lead	207-1	0.06	0.03	0.05	0.04	33.34	ppb
Lead	208-1	0.02	0.03	0.03	0.03	4.45	ppb
Lithium	6-1				94		%
Magnesium	24-2	2.21	2.15	2.22	2.19	1.89	ppb
Manganese	55-2	0.08	0.12	0.14	0.11	25.60	ppb
Molybdenum	94-1	0.11	0.12	0.10	0.11	11.27	ppb
Molybdenum	95-1	0.07	0.06	0.04	0.06	27.88	ppb
Molybdenum	96-1	0.05	0.07	0.06	0.06	19.86	ppb
Molybdenum	97-1	0.04	0.04	0.04	0.04	6.01	ppb
Molybdenum	98-1	0.06	0.06	0.06	0.06	2.68	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.07	0.11	0.12	0.10	30.33	ppb
Phosphorus	31-2	-30.35	-22.84	-30.65	-27.95		ppb
Potassium	39-2	10.10	10.52	7.94	9.52	14.56	ppb
Rhodium	103-1				110		%
Rhodium	103-2				111		%
Scandium	45-1				107		%
Scandium	45-2				109		%
Selenium	82-1	0.31	-0.25	0.57	0.21	197.01	ppb
Selenium	77-2	0.50	0.00	0.25	0.25	100.09	ppb
Selenium	78-2	-0.10	2.36	-0.86	0.47	358.58	ppb
Silicon	28-1	-8.75	-8.16	-8.75	-8.55		ppb
Silver	107-1	0.01	0.01	0.01	0.01	33.73	ppb
Silver	109-1	0.01	0.01	0.01	0.01	11.35	ppb
Sodium	23-2	27.89	28.43	25.28	27.20	6.20	ppb
Strontium	86-1	0.03	0.01	0.03	0.02	39.06	ppb
Strontium	88-1	0.04	0.04	0.03	0.03	1.75	ppb
Sulfur	34-1	-2249.86	-2193.98	-2131.84	-2191.89		ppb
Terbium	159-1				113		%
Terbium	159-2				111		%
Thallium	203-1	0.09	0.09	0.09	0.09	1.83	ppb
Thallium	205-1	0.08	0.08	0.09	0.08	3.16	ppb
Tin	118-1	0.07	0.09	0.07	0.08	12.42	ppb
Titanium	47-1	0.01	0.03	0.03	0.02	45.47	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCB02 Instrumnet Name : P7
Client Sample ID : CCB02 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:15:04 DataFile Name : 036CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00	12.08	ppb
Vanadium	51-2	0.01	0.01	0.00	0.00	76.30	ppb
Yttrium	89-1				111		%
Yttrium	89-2				112		%
Zinc	66-2	0.84	0.96	0.91	0.90	6.48	ppb
Zirconium	90-1	0.03	0.04	0.03	0.03	17.04	ppb
Zirconium	91-1	0.01	0.02	0.03	0.02	36.02	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-04 Instrumnet Name : P7
Client Sample ID : MW-17B-55-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:18:26 DataFile Name : 037AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	65.04	64.23	62.94	64.07	1.65	ppb
Antimony	121-1	0.29	0.32	0.31	0.31	4.60	ppb
Arsenic	75-2	0.81	0.84	0.85	0.83	2.68	ppb
Barium	135-1	384.00	379.60	382.90	382.17	0.60	ppb
Barium	137-1	388.45	384.58	390.76	387.93	0.81	ppb
Beryllium	9-1	0.12	0.07	0.11	0.10	27.36	ppb
Bismuth	209-1				125		%
Bismuth	209-2				122		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	0.02	0.05	-0.03	0.01	307.40	ppb
Cadmium	106-1	-0.31	-0.73	-1.81	-0.95		ppb
Cadmium	111-1	-0.01	-0.04	-0.12	-0.06		ppb
Calcium	43-1	30342.59	30398.36	30224.16	30321.70	0.29	ppb
Calcium	44-1	28898.34	29431.76	28795.67	29041.92	1.18	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.04	0.04	0.02	0.03	44.50	ppb
Cobalt	59-2	6.30	6.36	6.16	6.28	1.64	ppb
Copper	63-2	0.11	0.17	0.13	0.14	20.63	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				125		%
Holmium	165-2				123		%
Indium	115-1				126		%
Indium	115-2				126		%
Iron	56-2	5380.77	5409.99	5308.75	5366.50	0.97	ppb
Iron	57-2	5572.49	5656.58	5575.98	5601.68	0.85	ppb
Iron	54-2	5454.41	5526.94	5448.85	5476.73	0.80	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-04 Instrumnet Name : P7
Client Sample ID : MW-17B-55-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:18:26 DataFile Name : 037AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.01	-0.01	-0.01	0.00		ppb
Lead	207-1	0.01	0.03	0.01	0.02	57.14	ppb
Lead	208-1	0.00	0.00	0.00	0.00	21.08	ppb
Lithium	6-1				103		%
Magnesium	24-2	7433.18	7507.83	7321.11	7420.71	1.27	ppb
Manganese	55-2	450.52	452.22	447.69	450.15	0.51	ppb
Molybdenum	94-1	16.66	16.58	16.88	16.71	0.91	ppb
Molybdenum	95-1	20.97	20.63	20.46	20.69	1.26	ppb
Molybdenum	96-1	20.28	20.18	20.24	20.23	0.24	ppb
Molybdenum	97-1	20.62	20.64	20.50	20.59	0.36	ppb
Molybdenum	98-1	20.88	20.78	20.91	20.86	0.33	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	8.51	8.94	8.68	8.71	2.49	ppb
Phosphorus	31-2	269.46	292.26	280.14	280.62	4.06	ppb
Potassium	39-2	7460.77	7548.40	7496.16	7501.78	0.59	ppb
Rhodium	103-1				124		%
Rhodium	103-2				126		%
Scandium	45-1				121		%
Scandium	45-2				124		%
Selenium	82-1	0.79	-0.59	0.22	0.14	492.82	ppb
Selenium	77-2	0.22	0.00	0.43	0.22	99.97	ppb
Selenium	78-2	-0.90	-1.99	-1.20	-1.36		ppb
Silicon	28-1	2510.11	2580.37	2575.10	2555.19	1.53	ppb
Silver	107-1	0.00	0.00	0.01	0.00	47.43	ppb
Silver	109-1	0.00	0.00	0.01	0.00	75.09	ppb
Sodium	23-2	6451.04	6520.49	6395.97	6455.83	0.97	ppb
Strontium	86-1	250.97	249.59	249.61	250.06	0.32	ppb
Strontium	88-1	255.49	253.01	256.50	255.00	0.70	ppb
Sulfur	34-1	-1686.89	-1750.37	-1769.73	-1735.67		ppb
Terbium	159-1				128		%
Terbium	159-2				125		%
Thallium	203-1	0.25	0.28	0.23	0.26	9.55	ppb
Thallium	205-1	0.24	0.25	0.23	0.24	3.33	ppb
Tin	118-1	0.23	0.24	0.25	0.24	4.33	ppb
Titanium	47-1	0.82	0.69	0.75	0.75	8.75	ppb

LB Number :LB135315Operator :Jaswal

Lab Sample ID :Q1711-04Instrumnet Name :P7

Client Sample ID :MW-17B-55-040225Dilution Factor :1

Date & Time Acquired :2025-04-04 16:18:26DataFile Name :037AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.01	0.01	0.01	0.01	6.97	ppb
Vanadium	51-2	0.48	0.51	0.49	0.49	2.42	ppb
Yttrium	89-1				127		%
Yttrium	89-2				129		%
Zinc	66-2	3.54	3.40	3.61	3.51	2.91	ppb
Zirconium	90-1	0.01	0.01	0.01	0.01	4.63	ppb
Zirconium	91-1	0.01	-0.01	0.01	0.00	857.83	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-08 Instrumnet Name : P7
Client Sample ID : EB01-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:21:37 DataFile Name : 038AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	7.38	7.10	6.47	6.98	6.69	ppb
Antimony	121-1	0.00	0.01	0.01	0.01	80.88	ppb
Arsenic	75-2	-0.01	0.02	-0.01	0.00		ppb
Barium	135-1	0.10	0.11	0.09	0.10	9.82	ppb
Barium	137-1	0.10	0.10	0.11	0.11	5.14	ppb
Beryllium	9-1	0.00	0.00	0.03	0.01	227.72	ppb
Bismuth	209-1				126		%
Bismuth	209-2				121		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.06	-0.11	-0.09	-0.08		ppb
Cadmium	106-1	-0.63	-0.31	-0.46	-0.47		ppb
Cadmium	111-1	-0.03	-0.01	-0.02	-0.02		ppb
Calcium	43-1	19.74	33.48	26.04	26.42	26.04	ppb
Calcium	44-1	33.53	32.51	31.57	32.54	3.02	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.08	0.09	-0.06	-0.02		ppb
Cobalt	59-2	-0.02	-0.02	-0.02	-0.02		ppb
Copper	63-2	0.16	0.11	0.16	0.14	16.49	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				124		%
Holmium	165-2				120		%
Indium	115-1				126		%
Indium	115-2				124		%
Iron	56-2	3.14	3.62	3.27	3.34	7.33	ppb
Iron	57-2	1.30	0.47	1.49	1.09	50.08	ppb
Iron	54-2	0.36	0.92	1.28	0.85	54.38	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-08 Instrumnet Name : P7
Client Sample ID : EB01-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:21:37 DataFile Name : 038AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.44	0.46	0.46	0.45	2.74	ppb
Lead	207-1	0.43	0.43	0.47	0.45	5.51	ppb
Lead	208-1	0.44	0.45	0.44	0.44	0.70	ppb
Lithium	6-1				100		%
Magnesium	24-2	13.60	13.62	14.12	13.78	2.13	ppb
Manganese	55-2	0.25	0.30	0.25	0.27	11.25	ppb
Molybdenum	94-1	0.00	-0.01	0.00	0.00		ppb
Molybdenum	95-1	0.02	0.01	0.02	0.01	37.07	ppb
Molybdenum	96-1	0.00	0.00	0.01	0.00	115.25	ppb
Molybdenum	97-1	0.01	0.01	0.01	0.01	21.53	ppb
Molybdenum	98-1	0.02	0.02	0.02	0.02	10.36	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.05	-0.06	-0.05	-0.05		ppb
Phosphorus	31-2	-11.04	-16.51	-4.30	-10.62		ppb
Potassium	39-2	-20.70	-18.86	-19.52	-19.69		ppb
Rhodium	103-1				125		%
Rhodium	103-2				124		%
Scandium	45-1				120		%
Scandium	45-2				122		%
Selenium	82-1	0.00	0.39	-0.34	0.02	2026.39	ppb
Selenium	77-2	0.00	0.22	0.00	0.07	173.21	ppb
Selenium	78-2	-2.44	-2.46	-1.85	-2.25		ppb
Silicon	28-1	-14.07	-13.28	-13.69	-13.68		ppb
Silver	107-1	0.00	0.00	0.00	0.00		ppb
Silver	109-1	0.01	0.00	0.00	0.00	25.29	ppb
Sodium	23-2	55.64	59.85	60.22	58.57	4.34	ppb
Strontium	86-1	0.01	0.00	0.00	0.00	255.20	ppb
Strontium	88-1	0.10	0.10	0.10	0.10	3.93	ppb
Sulfur	34-1	-3341.10	-3298.79	-3339.98	-3326.62		ppb
Terbium	159-1				126		%
Terbium	159-2				123		%
Thallium	203-1	0.04	0.03	0.04	0.04	19.18	ppb
Thallium	205-1	0.03	0.03	0.03	0.03	9.25	ppb
Tin	118-1	0.24	0.22	0.20	0.22	10.24	ppb
Titanium	47-1	0.39	0.06	0.05	0.17	118.61	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-08 Instrumnet Name : P7
Client Sample ID : EB01-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:21:37 DataFile Name : 038AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.00	0.00	0.00	0.00	67.11	ppb
Vanadium	51-2	0.00	0.01	0.00	0.00	110.68	ppb
Yttrium	89-1				125		%
Yttrium	89-2				126		%
Zinc	66-2	0.39	0.49	0.59	0.49	20.80	ppb
Zirconium	90-1	0.01	0.00	0.00	0.00	33.75	ppb
Zirconium	91-1	0.00	0.00	-0.01	0.00		ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCV03 Instrumnet Name : P7
Client Sample ID : CCV03 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:24:57 DataFile Name : 039CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	49254.92	47767.28	49346.49	48789.56	1.82	ppb
Antimony	121-1	481.07	487.45	483.16	483.89	0.67	ppb
Arsenic	75-2	471.74	493.52	496.38	487.21	2.77	ppb
Barium	135-1	2393.15	2409.99	2386.33	2396.49	0.51	ppb
Barium	137-1	2412.40	2398.09	2408.48	2406.32	0.31	ppb
Beryllium	9-1	504.52	508.88	508.61	507.34	0.48	ppb
Bismuth	209-1				106		%
Bismuth	209-2				104		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	461.80	464.73	459.41	461.98	0.58	ppb
Cadmium	106-1	464.64	469.94	472.74	469.11	0.88	ppb
Cadmium	111-1	465.50	467.93	466.56	466.66	0.26	ppb
Calcium	43-1	270366.80	268898.04	270252.19	269839.01	0.30	ppb
Calcium	44-1	260106.23	262300.77	260243.83	260883.61	0.47	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	493.00	491.59	497.19	493.92	0.59	ppb
Cobalt	59-2	476.01	480.22	477.76	478.00	0.44	ppb
Copper	63-2	4683.72	4705.66	4723.49	4704.29	0.42	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				111		%
Holmium	165-2				112		%
Indium	115-1				107		%
Indium	115-2				108		%
Iron	56-2	126069.51	125683.93	126012.31	125921.92	0.17	ppb
Iron	57-2	124184.77	122811.80	123455.43	123484.00	0.56	ppb
Iron	54-2	124833.50	125339.54	124162.78	124778.61	0.47	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCV03 Instrumnet Name : P7
Client Sample ID : CCV03 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:24:57 DataFile Name : 039CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	2479.18	2540.11	2507.77	2509.02	1.22	ppb
Lead	207-1	2439.78	2499.91	2525.51	2488.40	1.77	ppb
Lead	208-1	2459.86	2501.17	2516.04	2492.36	1.17	ppb
Lithium	6-1				97		%
Magnesium	24-2	244330.65	246270.37	249658.83	246753.28	1.09	ppb
Manganese	55-2	4721.12	4721.91	4777.20	4740.08	0.68	ppb
Molybdenum	94-1	5090.35	4976.03	5084.43	5050.27	1.27	ppb
Molybdenum	95-1	5127.39	5036.40	5031.43	5065.08	1.07	ppb
Molybdenum	96-1	5080.30	5036.59	5047.28	5054.72	0.45	ppb
Molybdenum	97-1	5043.64	5039.23	5056.33	5046.40	0.18	ppb
Molybdenum	98-1	5053.36	4993.74	5153.11	5066.74	1.59	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	474.51	475.46	477.30	475.76	0.30	ppb
Phosphorus	31-2	9628.84	9496.82	9592.51	9572.72	0.71	ppb
Potassium	39-2	124205.74	122853.41	125496.96	124185.37	1.06	ppb
Rhodium	103-1				104		%
Rhodium	103-2				106		%
Scandium	45-1				110		%
Scandium	45-2				113		%
Selenium	82-1	477.12	461.88	469.98	469.66	1.62	ppb
Selenium	77-2	467.37	469.80	489.12	475.43	2.51	ppb
Selenium	78-2	448.75	475.02	495.85	473.21	4.99	ppb
Silicon	28-1	1474.29	1485.33	1480.12	1479.92	0.37	ppb
Silver	107-1	478.47	471.26	472.64	474.12	0.81	ppb
Silver	109-1	473.32	480.87	467.17	473.79	1.45	ppb
Sodium	23-2	247783.70	243482.46	247873.50	246379.89	1.02	ppb
Strontium	86-1	4901.11	4895.34	4920.12	4905.52	0.26	ppb
Strontium	88-1	5025.70	4938.24	5044.49	5002.81	1.13	ppb
Sulfur	34-1	8245.59	7927.45	8098.95	8090.66	1.97	ppb
Terbium	159-1				114		%
Terbium	159-2				114		%
Thallium	203-1	503.28	515.40	518.32	512.33	1.56	ppb
Thallium	205-1	492.32	516.90	504.02	504.41	2.44	ppb
Tin	118-1	452.21	459.22	453.53	454.99	0.82	ppb
Titanium	47-1	4837.55	4725.71	4937.61	4833.62	2.19	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCV03 Instrumnet Name : P7
Client Sample ID : CCV03 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:24:57 DataFile Name : 039CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	486.31	510.21	503.63	500.05	2.47	ppb
Vanadium	51-2	494.63	492.21	492.89	493.25	0.25	ppb
Yttrium	89-1				111		%
Yttrium	89-2				114		%
Zinc	66-2	4672.76	4757.47	4700.98	4710.41	0.92	ppb
Zirconium	90-1	515.38	501.46	506.95	507.93	1.38	ppb
Zirconium	91-1	512.98	503.85	511.77	509.53	0.97	ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCB03 Instrumnet Name : P7
Client Sample ID : CCB03 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:28:58 DataFile Name : 040CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	-0.28	-0.55	-1.22	-0.68		ppb
Antimony	121-1	0.05	0.05	0.06	0.05	17.16	ppb
Arsenic	75-2	-0.01	-0.03	0.01	-0.01		ppb
Barium	135-1	0.04	0.05	0.04	0.04	11.84	ppb
Barium	137-1	0.05	0.04	0.05	0.05	10.01	ppb
Beryllium	9-1	0.04	0.04	0.03	0.04	12.14	ppb
Bismuth	209-1				112		%
Bismuth	209-2				110		%
Bromine	81-1						cps
Bromine	81-2						cps
Cadmium	108-1	-0.05	-0.05	-0.11	-0.07		ppb
Cadmium	106-1	-1.32	-1.16	-1.21	-1.23		ppb
Cadmium	111-1	-0.05	-0.06	-0.05	-0.06		ppb
Calcium	43-1	7.81	0.91	3.02	3.91	90.34	ppb
Calcium	44-1	12.27	13.41	15.13	13.61	10.58	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.36	0.35	0.35	0.35	1.41	ppb
Cobalt	59-2	-0.01	-0.01	-0.01	-0.01		ppb
Copper	63-2	0.35	0.35	0.31	0.33	7.39	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				110		%
Holmium	165-2				114		%
Indium	115-1				112		%
Indium	115-2				115		%
Iron	56-2	3.90	3.66	3.30	3.62	8.33	ppb
Iron	57-2	1.41	2.80	1.30	1.84	45.31	ppb
Iron	54-2	4.81	3.42	4.15	4.13	16.91	ppb
Krypton	83-1						cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCB03 Instrumnet Name : P7
Client Sample ID : CCB03 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:28:58 DataFile Name : 040CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	206-1	0.02	0.01	0.02	0.02	48.43	ppb
Lead	207-1	0.05	0.05	0.06	0.05	8.44	ppb
Lead	208-1	0.03	0.03	0.03	0.03	4.39	ppb
Lithium	6-1				98		%
Magnesium	24-2	4.91	5.19	4.31	4.80	9.35	ppb
Manganese	55-2	0.26	0.18	0.23	0.23	17.60	ppb
Molybdenum	94-1	0.14	0.09	0.09	0.10	28.85	ppb
Molybdenum	95-1	0.10	0.08	0.07	0.08	19.00	ppb
Molybdenum	96-1	0.08	0.10	0.09	0.09	8.01	ppb
Molybdenum	97-1	0.09	0.07	0.09	0.08	8.07	ppb
Molybdenum	98-1	0.10	0.09	0.10	0.10	1.19	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.19	0.15	0.11	0.15	26.42	ppb
Phosphorus	31-2	-21.85	-22.57	-26.44	-23.62		ppb
Potassium	39-2	13.00	12.39	12.09	12.49	3.71	ppb
Rhodium	103-1				112		%
Rhodium	103-2				115		%
Scandium	45-1				108		%
Scandium	45-2				110		%
Selenium	82-1	-0.35	0.18	-0.33	-0.17		ppb
Selenium	77-2	0.00	0.00	0.00	0.00	N/A	ppb
Selenium	78-2	0.87	-1.41	-0.47	-0.34		ppb
Silicon	28-1	-8.48	-9.55	-9.45	-9.16		ppb
Silver	107-1	0.03	0.01	0.01	0.01	77.09	ppb
Silver	109-1	0.01	0.01	0.01	0.01	15.02	ppb
Sodium	23-2	27.33	25.82	25.90	26.35	3.22	ppb
Strontium	86-1	-0.03	0.01	0.04	0.01	686.50	ppb
Strontium	88-1	0.05	0.06	0.07	0.06	15.40	ppb
Sulfur	34-1	-2059.33	-2154.43	-2150.41	-2121.39		ppb
Terbium	159-1				113		%
Terbium	159-2				115		%
Thallium	203-1	0.07	0.07	0.08	0.07	9.57	ppb
Thallium	205-1	0.06	0.07	0.06	0.06	7.58	ppb
Tin	118-1	0.09	0.09	0.05	0.08	26.49	ppb
Titanium	47-1	0.06	0.05	0.09	0.07	31.06	ppb

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCB03 Instrumnet Name : P7
Client Sample ID : CCB03 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:28:58 DataFile Name : 040CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Uranium	238-1	0.01	0.00	0.00	0.01	36.39	ppb
Vanadium	51-2	0.01	0.00	0.01	0.01	66.74	ppb
Yttrium	89-1				113		%
Yttrium	89-2				114		%
Zinc	66-2	1.13	1.13	1.03	1.10	5.23	ppb
Zirconium	90-1	0.04	0.02	0.05	0.04	34.22	ppb
Zirconium	91-1	0.03	0.01	0.03	0.03	39.52	ppb

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S0 Instrumnet Name : P7
Client Sample ID : S0 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:09:04 DataFile Name : 005CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	400	363	357	373	6.25	cps
Antimony	121-1	63	13	30	36	71.61	cps
Arsenic	75-2	3	10	13	9	57.30	cps
Barium	135-1	30	20	20	23	24.74	cps
Barium	137-1	17	20	13	17	20.01	cps
Beryllium	9-1	37	21	31	30	28.34	cps
Bismuth	209-1	3647428	3596688	3515771	3586629	1.85	cps
Bismuth	209-2	3253061	3305424	3286943	3281810	0.81	cps
Bromine	81-1	25419	25001	25355	25258	0.89	cps
Bromine	81-2	297	270	370	312	16.59	cps
Cadmium	108-1	3	13	23	13	75.02	cps
Cadmium	106-1	1767	1823	1657	1749	4.85	cps
Cadmium	111-1	1244	1274	1163	1227	4.66	cps
Calcium	43-1	433	413	387	411	5.69	cps
Calcium	44-1	8353	8259	8586	8399	2.00	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	810	813	960	861	9.95	cps
Cobalt	59-2	120	110	103	111	7.55	cps
Copper	63-2	1473	1527	1473	1491	2.07	cps
Dysprosium	156-1	3	0	10	4	114.60	cps
Dysprosium	156-2	0	3	10	4	114.60	cps
Erbium	164-1	67	37	23	42	52.57	cps
Erbium	164-2	47	33	23	34	34.00	cps
Gadolinium	160-1	27	37	17	27	37.50	cps
Gadolinium	160-2	260	323	247	277	14.80	cps
Holmium	165-1	5875827	5854381	5693432	5807880	1.72	cps
Holmium	165-2	4384166	4376922	4390762	4383950	0.16	cps
Indium	115-1	4938423	4792137	4784952	4838504	1.79	cps
Indium	115-2	1909196	1934664	1895357	1913072	1.04	cps
Iron	56-2	21586	21589	21739	21638	0.41	cps
Iron	57-2	1270	1297	1247	1271	1.97	cps
Iron	54-2	2617	2357	2547	2507	5.37	cps
Krypton	83-1	327	367	297	330	10.64	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S0 Instrumnet Name : P7
Client Sample ID : S0 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:09:04 DataFile Name : 005CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	603	777	727	702	12.71	cps
Lead	207-1	540	500	510	517	4.03	cps
Lead	208-1	2520	2680	2640	2613	3.19	cps
Lithium	6-1	636695	616964	619136	624265	1.73	cps
Magnesium	24-2	140	160	153	151	6.74	cps
Manganese	55-2	1850	1713	1760	1775	3.92	cps
Molybdenum	94-1	133	123	123	127	4.56	cps
Molybdenum	95-1	23	30	30	28	13.86	cps
Molybdenum	96-1	150	117	133	133	12.50	cps
Molybdenum	97-1	37	27	30	31	16.37	cps
Molybdenum	98-1	43	37	50	43	15.38	cps
Neodymium	150-1	10	0	0	3	173.21	cps
Neodymium	150-2	3	0	0	1	173.21	cps
Nickel	60-2	257	210	197	221	14.25	cps
Phosphorus	31-2	293	307	330	310	5.99	cps
Potassium	39-2	50306	49922	49253	49827	1.07	cps
Rhodium	103-1	4690305	4627774	4576771	4631617	1.23	cps
Rhodium	103-2	2876994	2867607	2842606	2862402	0.62	cps
Scandium	45-1	2871034	2718225	2697835	2762365	3.43	cps
Scandium	45-2	263699	264539	261681	263306	0.56	cps
Selenium	82-1	201	146	200	182	17.26	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	670	687	700	686	2.19	cps
Silicon	28-1	1267278	1304685	1272119	1281361	1.59	cps
Silver	107-1	33	43	70	49	38.78	cps
Silver	109-1	20	3	30	18	75.79	cps
Sodium	23-2	13996	14113	13816	13975	1.07	cps
Strontium	86-1	620	557	530	569	8.13	cps
Strontium	88-1	103	103	77	94	16.30	cps
Sulfur	34-1	135928	137139	135484	136183	0.63	cps
Terbium	159-1	6019662	5834765	5802055	5885494	1.99	cps
Terbium	159-2	4271523	4376506	4306298	4318109	1.24	cps
Thallium	203-1	43	70	57	57	23.53	cps
Thallium	205-1	217	200	220	212	5.05	cps
Tin	118-1	727	777	753	752	3.33	cps
Titanium	47-1	47	50	67	54	19.68	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S0 Instrumnet Name : P7
Client Sample ID : S0 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:09:04 DataFile Name : 005CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	30	0	7	12	128.87	cps
Vanadium	51-2	7	0	17	8	107.84	cps
Yttrium	89-1	7145786	7088615	6970507	7068303	1.26	cps
Yttrium	89-2	2124868	2049455	2032827	2069050	2.37	cps
Zinc	66-2	340	333	363	346	4.56	cps
Zirconium	90-1	287	240	277	268	9.18	cps
Zirconium	91-1	30	53	107	63	62.06	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S2 Instrumnet Name : P7
Client Sample ID : S2 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:15:42 DataFile Name : 007CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2880	2974	2780	2878	3.36	cps
Antimony	121-1	10057	9887	9997	9980	0.86	cps
Arsenic	75-2	380	333	360	358	6.54	cps
Barium	135-1	12679	12923	12265	12622	2.63	cps
Barium	137-1	21904	21810	22074	21929	0.61	cps
Beryllium	9-1	748	801	808	786	4.19	cps
Bismuth	209-1	3594919	3587198	3484366	3555494	1.74	cps
Bismuth	209-2	3310752	3237265	3323239	3290419	1.41	cps
Bromine	81-1	25108	25048	24648	24935	1.00	cps
Bromine	81-2	240	243	223	236	4.55	cps
Cadmium	108-1	103	107	123	111	9.65	cps
Cadmium	106-1	1940	1967	1853	1920	3.09	cps
Cadmium	111-1	2749	2862	2705	2772	2.93	cps
Calcium	43-1	7825	7925	7749	7833	1.13	cps
Calcium	44-1	130961	132981	129893	131278	1.19	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	5578	5564	5484	5542	0.91	cps
Cobalt	59-2	4161	4131	3884	4058	3.74	cps
Copper	63-2	6898	7068	6782	6916	2.09	cps
Dysprosium	156-1	0	7	17	8	107.84	cps
Dysprosium	156-2	7	0	10	6	91.64	cps
Erbium	164-1	30	40	53	41	28.47	cps
Erbium	164-2	47	37	30	38	22.21	cps
Gadolinium	160-1	20	23	20	21	9.11	cps
Gadolinium	160-2	333	227	250	270	20.77	cps
Holmium	165-1	5669832	5737277	5759066	5722058	0.81	cps
Holmium	165-2	4462420	4373967	4413485	4416624	1.00	cps
Indium	115-1	4798929	4849877	4809537	4819447	0.56	cps
Indium	115-2	1927076	1922030	1935176	1928094	0.34	cps
Iron	56-2	135484	136799	133615	135299	1.18	cps
Iron	57-2	4367	4257	4321	4315	1.28	cps
Iron	54-2	8733	8773	9173	8893	2.74	cps
Krypton	83-1	350	327	353	343	4.23	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S2 Instrumnet Name : P7
Client Sample ID : S2 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:15:42 DataFile Name : 007CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	4297	4257	4374	4310	1.38	cps
Lead	207-1	3857	3891	3801	3849	1.18	cps
Lead	208-1	17455	17278	17685	17472	1.17	cps
Lithium	6-1	645109	631227	638400	638245	1.09	cps
Magnesium	24-2	107224	107395	106217	106945	0.59	cps
Manganese	55-2	3737	3517	3690	3648	3.18	cps
Molybdenum	94-1	10921	10771	10951	10881	0.89	cps
Molybdenum	95-1	12889	13403	12782	13025	2.55	cps
Molybdenum	96-1	14891	14711	14544	14715	1.18	cps
Molybdenum	97-1	7942	8336	7966	8081	2.73	cps
Molybdenum	98-1	21102	21095	21619	21272	1.41	cps
Neodymium	150-1	7	7	3	6	34.70	cps
Neodymium	150-2	3	3	0	2	86.60	cps
Nickel	60-2	1090	1200	1060	1117	6.60	cps
Phosphorus	31-2	633	560	647	613	7.61	cps
Potassium	39-2	194773	192838	194408	194006	0.53	cps
Rhodium	103-1	4562331	4515346	4591404	4556360	0.84	cps
Rhodium	103-2	2893574	2893995	2902645	2896738	0.18	cps
Scandium	45-1	2751242	2748734	2751733	2750570	0.06	cps
Scandium	45-2	265701	262184	264431	264105	0.67	cps
Selenium	82-1	762	849	763	791	6.28	cps
Selenium	77-2	70	67	67	68	2.84	cps
Selenium	78-2	997	867	1010	958	8.27	cps
Silicon	28-1	1282974	1281068	1277446	1280496	0.22	cps
Silver	107-1	6782	7205	7275	7087	3.77	cps
Silver	109-1	6578	6815	7005	6799	3.15	cps
Sodium	23-2	183122	184774	184171	184022	0.45	cps
Strontium	86-1	2184	2334	2264	2260	3.32	cps
Strontium	88-1	15121	15298	15248	15222	0.60	cps
Sulfur	34-1	137051	137953	136977	137327	0.40	cps
Terbium	159-1	5829132	5932330	5961810	5907757	1.18	cps
Terbium	159-2	4450956	4360996	4405685	4405879	1.02	cps
Thallium	203-1	4534	4851	4547	4644	3.86	cps
Thallium	205-1	10861	11375	11341	11192	2.57	cps
Tin	118-1	23125	23015	23362	23168	0.77	cps
Titanium	47-1	3320	3480	3487	3429	2.75	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S2 Instrumnet Name : P7
Client Sample ID : S2 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:15:42 DataFile Name : 007CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	14985	14785	14431	14734	1.90	cps
Vanadium	51-2	10053	9683	9740	9826	2.03	cps
Yttrium	89-1	6969822	7186166	6965143	7040377	1.79	cps
Yttrium	89-2	2077869	2048330	2134883	2087027	2.11	cps
Zinc	66-2	2874	2910	2867	2884	0.81	cps
Zirconium	90-1	9110	8803	9093	9002	1.92	cps
Zirconium	91-1	1877	1987	1983	1949	3.21	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S3 Instrumnet Name : P7
Client Sample ID : S3 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:19:02 DataFile Name : 008CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	118053	117952	118160	118055	0.09	cps
Antimony	121-1	228941	230325	229833	229700	0.31	cps
Arsenic	75-2	14974	14858	14878	14903	0.42	cps
Barium	135-1	295797	300577	295870	297415	0.92	cps
Barium	137-1	508755	518797	511090	512881	1.02	cps
Beryllium	9-1	37894	37290	36901	37362	1.34	cps
Bismuth	209-1	3636793	3601142	3617646	3618527	0.49	cps
Bismuth	209-2	3397247	3420785	3290627	3369553	2.06	cps
Bromine	81-1	24510	24347	24584	24480	0.50	cps
Bromine	81-2	157	210	187	184	14.49	cps
Cadmium	108-1	4824	5178	4934	4979	3.63	cps
Cadmium	106-1	8823	8759	8653	8745	0.98	cps
Cadmium	111-1	68859	70081	69158	69366	0.92	cps
Calcium	43-1	69974	69589	70761	70108	0.85	cps
Calcium	44-1	1130051	1139736	1140253	1136680	0.51	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	109272	108181	107245	108233	0.94	cps
Cobalt	59-2	170777	170637	169907	170441	0.27	cps
Copper	63-2	1295749	1292562	1280714	1289675	0.61	cps
Dysprosium	156-1	10	0	10	7	86.60	cps
Dysprosium	156-2	23	23	23	23	0.00	cps
Erbium	164-1	50	57	67	58	14.52	cps
Erbium	164-2	23	23	57	34	55.89	cps
Gadolinium	160-1	17	37	17	23	49.48	cps
Gadolinium	160-2	253	293	257	268	8.29	cps
Holmium	165-1	5701858	5747113	5722503	5723824	0.40	cps
Holmium	165-2	4569725	4553293	4483008	4535342	1.02	cps
Indium	115-1	4657346	4741998	4674044	4691129	0.96	cps
Indium	115-2	2001862	1918632	1908104	1942866	2.64	cps
Iron	56-2	4979118	5002564	4899918	4960534	1.08	cps
Iron	57-2	132192	130730	130759	131227	0.64	cps
Iron	54-2	290479	291523	285541	289181	1.11	cps
Krypton	83-1	333	363	390	362	7.83	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S3 Instrumnet Name : P7
Client Sample ID : S3 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:19:02 DataFile Name : 008CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	885035	901439	886886	891120	1.01	cps
Lead	207-1	777436	790375	778422	782078	0.92	cps
Lead	208-1	3575883	3666140	3590494	3610839	1.34	cps
Lithium	6-1	648082	651358	628694	642711	1.91	cps
Magnesium	24-2	988570	981175	983346	984364	0.39	cps
Manganese	55-2	953024	945091	932092	943402	1.12	cps
Molybdenum	94-1	837162	836953	849153	841089	0.83	cps
Molybdenum	95-1	1200126	1203063	1202207	1201799	0.13	cps
Molybdenum	96-1	1313397	1318084	1324806	1318762	0.43	cps
Molybdenum	97-1	751866	764023	762581	759490	0.87	cps
Molybdenum	98-1	1893493	1963237	1882760	1913163	2.28	cps
Neodymium	150-1	7	7	17	10	57.72	cps
Neodymium	150-2	10	7	7	8	24.71	cps
Nickel	60-2	44830	45409	45355	45198	0.71	cps
Phosphorus	31-2	7655	7278	7225	7386	3.17	cps
Potassium	39-2	722850	714256	712415	716507	0.78	cps
Rhodium	103-1	4528663	4551331	4616861	4565618	1.00	cps
Rhodium	103-2	2847238	2890591	2890960	2876263	0.87	cps
Scandium	45-1	2714456	2764822	2722374	2733884	0.99	cps
Scandium	45-2	262674	258856	257214	259581	1.08	cps
Selenium	82-1	5472	5387	5593	5484	1.88	cps
Selenium	77-2	747	690	610	682	10.06	cps
Selenium	78-2	2784	2854	2880	2839	1.76	cps
Silicon	28-1	2070326	2052395	2028184	2050302	1.03	cps
Silver	107-1	332330	334054	334041	333475	0.30	cps
Silver	109-1	313711	318267	317572	316517	0.78	cps
Sodium	23-2	1628460	1626726	1617495	1624227	0.36	cps
Strontium	86-1	77372	78866	78102	78114	0.96	cps
Strontium	88-1	679324	684418	692143	685295	0.94	cps
Sulfur	34-1	157491	157017	155259	156589	0.75	cps
Terbium	159-1	5785212	5933757	5798619	5839196	1.41	cps
Terbium	159-2	4461716	4386551	4419129	4422465	0.85	cps
Thallium	203-1	223594	223104	220366	222355	0.78	cps
Thallium	205-1	525744	525386	521468	524199	0.45	cps
Tin	118-1	198160	198689	200588	199146	0.64	cps
Titanium	47-1	312923	314418	316243	314528	0.53	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S3 Instrumnet Name : P7
Client Sample ID : S3 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:19:02 DataFile Name : 008CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	663026	671394	674922	669781	0.91	cps
Vanadium	51-2	93045	91143	92065	92084	1.03	cps
Yttrium	89-1	6850019	6926165	6955754	6910646	0.79	cps
Yttrium	89-2	2098051	2067126	2068512	2077896	0.84	cps
Zinc	66-2	264820	263216	261601	263212	0.61	cps
Zirconium	90-1	410718	418521	417153	415464	1.00	cps
Zirconium	91-1	92020	93019	94103	93047	1.12	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S4 Instrumnet Name : P7
Client Sample ID : S4 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:22:15 DataFile Name : 009CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	289338	290884	286868	289030	0.70	cps
Antimony	121-1	573769	574620	574381	574257	0.08	cps
Arsenic	75-2	37417	37982	36812	37404	1.56	cps
Barium	135-1	741653	744738	755108	747166	0.94	cps
Barium	137-1	1282922	1287456	1295897	1288758	0.51	cps
Beryllium	9-1	93922	95283	95360	94855	0.85	cps
Bismuth	209-1	3621767	3624597	3652173	3632846	0.46	cps
Bismuth	209-2	3376247	3381201	3422533	3393327	0.75	cps
Bromine	81-1	24237	24100	24247	24194	0.34	cps
Bromine	81-2	180	210	190	193	7.90	cps
Cadmium	108-1	12205	12509	12349	12354	1.23	cps
Cadmium	106-1	19189	19069	19573	19277	1.37	cps
Cadmium	111-1	172210	173198	175478	173629	0.97	cps
Calcium	43-1	174838	174972	172834	174215	0.69	cps
Calcium	44-1	2745028	2726806	2723915	2731916	0.42	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	265385	266354	264821	265520	0.29	cps
Cobalt	59-2	421411	421423	420621	421152	0.11	cps
Copper	63-2	3222900	3204273	3147576	3191583	1.23	cps
Dysprosium	156-1	23	37	13	24	47.91	cps
Dysprosium	156-2	37	80	40	52	46.17	cps
Erbium	164-1	57	67	33	52	32.76	cps
Erbium	164-2	40	30	47	39	21.57	cps
Gadolinium	160-1	33	30	23	29	17.63	cps
Gadolinium	160-2	333	283	223	280	19.67	cps
Holmium	165-1	5763450	5745607	5879201	5796086	1.25	cps
Holmium	165-2	4579981	4542903	4516940	4546608	0.70	cps
Indium	115-1	4829488	4766176	4843621	4813095	0.86	cps
Indium	115-2	1935351	1926494	1922438	1928094	0.34	cps
Iron	56-2	12314505	12278025	12141951	12244827	0.74	cps
Iron	57-2	321700	322912	320263	321625	0.41	cps
Iron	54-2	713629	710409	705427	709822	0.58	cps
Krypton	83-1	440	377	427	414	8.06	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S4 Instrumnet Name : P7
Client Sample ID : S4 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:22:15 DataFile Name : 009CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	2255972	2266239	2353638	2291950	2.34	cps
Lead	207-1	2025939	2041538	2070023	2045833	1.09	cps
Lead	208-1	9182680	9227199	9336398	9248759	0.86	cps
Lithium	6-1	655309	659112	658938	657786	0.33	cps
Magnesium	24-2	2455254	2482594	2441421	2459756	0.85	cps
Manganese	55-2	2291803	2336238	2286278	2304773	1.19	cps
Molybdenum	94-1	2137611	2123612	2128421	2129881	0.33	cps
Molybdenum	95-1	3067339	3047491	2985143	3033325	1.41	cps
Molybdenum	96-1	3345077	3320820	3342977	3336292	0.40	cps
Molybdenum	97-1	1898737	1874877	1895832	1889815	0.69	cps
Molybdenum	98-1	4834143	4798629	4853157	4828643	0.57	cps
Neodymium	150-1	43	67	53	54	21.51	cps
Neodymium	150-2	27	10	7	14	74.18	cps
Nickel	60-2	109540	111078	109936	110184	0.72	cps
Phosphorus	31-2	17300	16886	17103	17096	1.21	cps
Potassium	39-2	1639980	1616652	1603423	1620018	1.14	cps
Rhodium	103-1	4606615	4553945	4543015	4567858	0.74	cps
Rhodium	103-2	2916295	2889486	2836939	2880906	1.40	cps
Scandium	45-1	2793789	2804986	2767176	2788651	0.70	cps
Scandium	45-2	259568	258510	259738	259272	0.26	cps
Selenium	82-1	13752	13603	13492	13616	0.96	cps
Selenium	77-2	1600	1570	1563	1578	1.24	cps
Selenium	78-2	5811	5851	5911	5858	0.86	cps
Silicon	28-1	3592321	3560804	3574776	3575967	0.44	cps
Silver	107-1	838869	834311	849708	840963	0.94	cps
Silver	109-1	802671	793841	795312	797275	0.59	cps
Sodium	23-2	3932694	3948714	3933171	3938193	0.23	cps
Strontium	86-1	195045	196659	195388	195697	0.43	cps
Strontium	88-1	1683821	1710479	1701851	1698717	0.80	cps
Sulfur	34-1	187776	187327	184571	186558	0.93	cps
Terbium	159-1	5852528	5851927	5924876	5876444	0.71	cps
Terbium	159-2	4497486	4436799	4486501	4473595	0.72	cps
Thallium	203-1	559690	563005	568897	563864	0.83	cps
Thallium	205-1	1318176	1319289	1337482	1324982	0.82	cps
Tin	118-1	496617	499870	504207	500232	0.76	cps
Titanium	47-1	796067	795982	779955	790668	1.17	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S4 Instrumnet Name : P7
Client Sample ID : S4 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:22:15 DataFile Name : 009CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	1702741	1701218	1733922	1712627	1.08	cps
Vanadium	51-2	229632	228326	229460	229139	0.31	cps
Yttrium	89-1	7015777	7051022	7140732	7069177	0.91	cps
Yttrium	89-2	2133720	2065952	2064322	2087998	1.90	cps
Zinc	66-2	635490	633122	626615	631742	0.73	cps
Zirconium	90-1	1050598	1055295	1048229	1051374	0.34	cps
Zirconium	91-1	234453	235318	233466	234413	0.40	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S5 Instrumnet Name : P7
Client Sample ID : S5 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:25:20 DataFile Name : 010CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	565153	563566	558311	562343	0.64	cps
Antimony	121-1	1149408	1158264	1152346	1153339	0.39	cps
Arsenic	75-2	73819	73970	73591	73793	0.26	cps
Barium	135-1	1506652	1505931	1516402	1509662	0.39	cps
Barium	137-1	2604816	2602863	2638736	2615472	0.77	cps
Beryllium	9-1	191860	193861	194768	193496	0.77	cps
Bismuth	209-1	3689926	3676731	3710946	3692534	0.47	cps
Bismuth	209-2	3384572	3461327	3480474	3442124	1.47	cps
Bromine	81-1	24507	24454	24163	24375	0.76	cps
Bromine	81-2	180	223	213	206	11.04	cps
Cadmium	108-1	24551	25312	25569	25144	2.11	cps
Cadmium	106-1	38036	37194	36636	37289	1.89	cps
Cadmium	111-1	350202	349963	344820	348328	0.87	cps
Calcium	43-1	346464	348627	348062	347717	0.32	cps
Calcium	44-1	5360920	5532836	5410103	5434620	1.63	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	520353	524639	516589	520527	0.77	cps
Cobalt	59-2	824304	827234	817933	823157	0.58	cps
Copper	63-2	6316636	6167277	6274452	6252788	1.23	cps
Dysprosium	156-1	33	40	27	33	20.00	cps
Dysprosium	156-2	77	100	73	83	17.44	cps
Erbium	164-1	60	70	70	67	8.66	cps
Erbium	164-2	23	73	63	53	49.61	cps
Gadolinium	160-1	37	47	37	40	14.43	cps
Gadolinium	160-2	300	227	233	253	16.01	cps
Holmium	165-1	5772334	5726068	5819762	5772721	0.81	cps
Holmium	165-2	4643956	4612312	4694626	4650298	0.89	cps
Indium	115-1	4828858	4750400	4753618	4777625	0.93	cps
Indium	115-2	1939810	1958047	1940045	1945968	0.54	cps
Iron	56-2	24292674	24186780	24310709	24263387	0.28	cps
Iron	57-2	627909	637929	635118	633652	0.82	cps
Iron	54-2	1337694	1397035	1383363	1372697	2.26	cps
Krypton	83-1	370	313	300	328	11.34	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S5 Instrumnet Name : P7
Client Sample ID : S5 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:25:20 DataFile Name : 010CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	4578200	4702678	4756425	4679101	1.95	cps
Lead	207-1	4131866	4203896	4227970	4187910	1.19	cps
Lead	208-1	18738185	18863984	19027095	18876421	0.77	cps
Lithium	6-1	683088	683338	679473	681966	0.32	cps
Magnesium	24-2	4761353	4781757	4747624	4763578	0.36	cps
Manganese	55-2	4496920	4558843	4596684	4550816	1.11	cps
Molybdenum	94-1	4261641	4284658	4235098	4260466	0.58	cps
Molybdenum	95-1	6086984	6061350	6025816	6058050	0.51	cps
Molybdenum	96-1	6676845	6755918	6623735	6685499	0.99	cps
Molybdenum	97-1	3779470	3816922	3798213	3798202	0.49	cps
Molybdenum	98-1	9763127	9782979	9923178	9823095	0.89	cps
Neodymium	150-1	67	100	53	73	32.78	cps
Neodymium	150-2	17	23	20	20	16.65	cps
Nickel	60-2	214918	215525	213425	214623	0.50	cps
Phosphorus	31-2	32678	33042	33567	33096	1.35	cps
Potassium	39-2	3056558	3086440	3111679	3084892	0.89	cps
Rhodium	103-1	4514714	4537365	4510486	4520855	0.32	cps
Rhodium	103-2	2858379	2896188	2859660	2871409	0.75	cps
Scandium	45-1	2730992	2663557	2764948	2719832	1.90	cps
Scandium	45-2	250041	253122	250498	251220	0.66	cps
Selenium	82-1	27000	27086	26773	26953	0.60	cps
Selenium	77-2	2970	3127	3150	3083	3.18	cps
Selenium	78-2	11288	11505	11111	11301	1.74	cps
Silicon	28-1	5787874	5983521	5984655	5918683	1.91	cps
Silver	107-1	1679060	1648086	1634627	1653924	1.38	cps
Silver	109-1	1588055	1597143	1595372	1593523	0.30	cps
Sodium	23-2	7645804	7721567	7640248	7669207	0.59	cps
Strontium	86-1	392323	392071	389707	391367	0.37	cps
Strontium	88-1	3448252	3460884	3444830	3451322	0.24	cps
Sulfur	34-1	234392	236068	233525	234662	0.55	cps
Terbium	159-1	6020056	5978372	5990764	5996397	0.36	cps
Terbium	159-2	4639759	4649317	4503795	4597623	1.77	cps
Thallium	203-1	1142029	1140448	1143270	1141916	0.12	cps
Thallium	205-1	2782782	2739954	2794077	2772271	1.03	cps
Tin	118-1	1011918	1005172	999592	1005561	0.61	cps
Titanium	47-1	1557738	1615851	1584404	1585998	1.83	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S5 Instrumnet Name : P7
Client Sample ID : S5 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:25:20 DataFile Name : 010CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	3615156	3708453	3790586	3704732	2.37	cps
Vanadium	51-2	446618	448519	449522	448220	0.33	cps
Yttrium	89-1	6983679	6964948	6950830	6966486	0.24	cps
Yttrium	89-2	2064404	2069428	2074441	2069424	0.24	cps
Zinc	66-2	1228647	1248232	1247031	1241303	0.88	cps
Zirconium	90-1	2112565	2119460	2083846	2105290	0.90	cps
Zirconium	91-1	472826	471651	473322	472600	0.18	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S6 Instrumnet Name : P7
Client Sample ID : S6 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:28:16 DataFile Name : 011CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1113913	1113942	1100239	1109364	0.71	cps
Antimony	121-1	2290735	2302107	2310702	2301181	0.44	cps
Arsenic	75-2	147330	146185	148532	147349	0.80	cps
Barium	135-1	3049632	3079499	3107855	3078996	0.95	cps
Barium	137-1	5252286	5236661	5381463	5290137	1.50	cps
Beryllium	9-1	382743	383517	385311	383857	0.34	cps
Bismuth	209-1	3656648	3730488	3719791	3702309	1.08	cps
Bismuth	209-2	3430026	3449173	3392398	3423865	0.84	cps
Bromine	81-1	24764	24654	24233	24551	1.14	cps
Bromine	81-2	193	170	180	181	6.47	cps
Cadmium	108-1	49581	49391	50167	49713	0.81	cps
Cadmium	106-1	70199	71535	72698	71477	1.75	cps
Cadmium	111-1	675546	683857	687385	682263	0.89	cps
Calcium	43-1	680830	686019	693489	686780	0.93	cps
Calcium	44-1	10702091	10823502	10717382	10747658	0.62	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1025892	1034669	1030154	1030238	0.43	cps
Cobalt	59-2	1622710	1629987	1625742	1626146	0.22	cps
Copper	63-2	12331296	12382261	12376058	12363205	0.22	cps
Dysprosium	156-1	50	60	53	54	9.35	cps
Dysprosium	156-2	180	137	160	159	13.65	cps
Erbium	164-1	87	120	80	96	22.43	cps
Erbium	164-2	53	67	70	63	13.93	cps
Gadolinium	160-1	40	53	70	54	27.61	cps
Gadolinium	160-2	313	270	330	304	10.17	cps
Holmium	165-1	5890829	5816712	5927716	5878419	0.96	cps
Holmium	165-2	4699716	4706731	4705435	4703960	0.08	cps
Indium	115-1	4696643	4696079	4826611	4739778	1.59	cps
Indium	115-2	1939114	1952793	1939120	1943676	0.41	cps
Iron	56-2	48412323	48150014	48131283	48231207	0.33	cps
Iron	57-2	1258141	1260787	1253698	1257542	0.28	cps
Iron	54-2	2660176	2706180	2666230	2677529	0.93	cps
Krypton	83-1	327	353	303	328	7.63	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S6 Instrumnet Name : P7
Client Sample ID : S6 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:28:16 DataFile Name : 011CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	9233962	9362032	9381187	9325727	0.86	cps
Lead	207-1	8240329	8212352	8349929	8267537	0.88	cps
Lead	208-1	37454327	37786580	37915028	37718645	0.63	cps
Lithium	6-1	688213	686077	684794	686362	0.25	cps
Magnesium	24-2	9452253	9503290	9421581	9459041	0.44	cps
Manganese	55-2	9089394	9051863	9125874	9089044	0.41	cps
Molybdenum	94-1	8357039	8424702	8577087	8452942	1.33	cps
Molybdenum	95-1	11906663	12176475	12239888	12107675	1.46	cps
Molybdenum	96-1	13016045	13534943	13346994	13299327	1.98	cps
Molybdenum	97-1	7459976	7537818	7632335	7543376	1.14	cps
Molybdenum	98-1	19424988	19196982	19615918	19412629	1.08	cps
Neodymium	150-1	150	137	173	153	12.10	cps
Neodymium	150-2	53	20	47	40	44.09	cps
Nickel	60-2	424647	423525	427317	425163	0.46	cps
Phosphorus	31-2	65898	66400	64385	65561	1.60	cps
Potassium	39-2	6167009	6171098	6114060	6150722	0.52	cps
Rhodium	103-1	4424568	4464606	4531014	4473396	1.20	cps
Rhodium	103-2	2868081	2869029	2857712	2864941	0.22	cps
Scandium	45-1	2807943	2773973	2697681	2759866	2.05	cps
Scandium	45-2	252084	253306	254225	253205	0.42	cps
Selenium	82-1	51227	52206	52862	52098	1.58	cps
Selenium	77-2	6428	6151	6035	6205	3.26	cps
Selenium	78-2	22057	21235	20932	21408	2.72	cps
Silicon	28-1	9347958	9760424	9655861	9588081	2.24	cps
Silver	107-1	3277531	3281345	3291460	3283446	0.22	cps
Silver	109-1	3102940	3109648	3169837	3127475	1.18	cps
Sodium	23-2	15221571	15352512	15199349	15257811	0.54	cps
Strontium	86-1	771576	779336	785218	778710	0.88	cps
Strontium	88-1	6756064	6868826	6869765	6831551	0.96	cps
Sulfur	34-1	323958	319662	318846	320822	0.86	cps
Terbium	159-1	5889706	6063074	6032956	5995246	1.55	cps
Terbium	159-2	4633281	4696315	4697480	4675692	0.79	cps
Thallium	203-1	2347717	2344445	2391782	2361315	1.12	cps
Thallium	205-1	5573548	5586079	5651689	5603772	0.75	cps
Tin	118-1	2002044	2024021	2031298	2019121	0.75	cps
Titanium	47-1	3118816	3135775	3176423	3143671	0.94	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S6 Instrumnet Name : P7
Client Sample ID : S6 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:28:16 DataFile Name : 011CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	7438061	7437568	7600642	7492090	1.25	cps
Vanadium	51-2	897501	897921	895486	896969	0.15	cps
Yttrium	89-1	6924454	6926459	7189068	7013327	2.17	cps
Yttrium	89-2	2119619	2139214	2076601	2111811	1.52	cps
Zinc	66-2	2388036	2430857	2433265	2417386	1.05	cps
Zirconium	90-1	4097784	4174185	4216404	4162791	1.44	cps
Zirconium	91-1	931187	944131	953398	942905	1.18	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S7 Instrumnet Name : P7
Client Sample ID : S7 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:31:06 DataFile Name : 012CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2297929	2304261	2307625	2303271	0.21	cps
Antimony	121-1	4682496	4653660	4669726	4668627	0.31	cps
Arsenic	75-2	301401	298316	295059	298259	1.06	cps
Barium	135-1	6091084	6367256	6335584	6264641	2.41	cps
Barium	137-1	10515332	10656688	10769781	10647267	1.20	cps
Beryllium	9-1	738456	744711	740586	741251	0.43	cps
Bismuth	209-1	3630466	3733444	3608218	3657376	1.83	cps
Bismuth	209-2	3408756	3432253	3400410	3413806	0.48	cps
Bromine	81-1	25422	25766	26200	25796	1.51	cps
Bromine	81-2	133	200	163	166	20.17	cps
Cadmium	108-1	97716	100257	99660	99211	1.34	cps
Cadmium	106-1	138517	142428	140244	140397	1.40	cps
Cadmium	111-1	1343768	1362130	1362941	1356280	0.80	cps
Calcium	43-1	1320273	1330977	1334803	1328684	0.57	cps
Calcium	44-1	21743125	21958333	22206099	21969186	1.05	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2097789	2075146	2062568	2078501	0.86	cps
Cobalt	59-2	3358571	3326004	3348055	3344210	0.50	cps
Copper	63-2	25166406	24908235	24966849	25013830	0.54	cps
Dysprosium	156-1	143	113	100	119	18.67	cps
Dysprosium	156-2	357	333	390	360	7.91	cps
Erbium	164-1	83	130	127	113	22.97	cps
Erbium	164-2	113	140	87	113	23.53	cps
Gadolinium	160-1	100	90	117	102	13.18	cps
Gadolinium	160-2	300	300	303	301	0.64	cps
Holmium	165-1	5913838	6125933	5995104	6011625	1.78	cps
Holmium	165-2	4877078	4772117	4823968	4824388	1.09	cps
Indium	115-1	4795377	4772049	4764980	4777469	0.33	cps
Indium	115-2	1949161	1914664	1927645	1930490	0.90	cps
Iron	56-2	99401082	98977939	98535862	98971627	0.44	cps
Iron	57-2	2466198	2471703	2456706	2464869	0.31	cps
Iron	54-2	5519794	5421776	5402091	5447887	1.16	cps
Krypton	83-1	307	303	420	343	19.34	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S7 Instrumnet Name : P7
Client Sample ID : S7 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:31:06 DataFile Name : 012CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	18826629	18977092	18801875	18868532	0.50	cps
Lead	207-1	16815648	16769160	16835335	16806714	0.20	cps
Lead	208-1	75195869	75995470	75698866	75630068	0.53	cps
Lithium	6-1	696056	688948	672720	685908	1.74	cps
Magnesium	24-2	19272083	19261413	19327701	19287066	0.18	cps
Manganese	55-2	18496717	18777903	18549695	18608105	0.80	cps
Molybdenum	94-1	16890410	17414068	17429657	17244712	1.78	cps
Molybdenum	95-1	24120965	25064128	25123427	24769507	2.27	cps
Molybdenum	96-1	26605738	27320171	26829941	26918617	1.36	cps
Molybdenum	97-1	15151394	15571623	15390238	15371085	1.37	cps
Molybdenum	98-1	38962829	39897951	40119764	39660181	1.55	cps
Neodymium	150-1	383	327	303	338	12.18	cps
Neodymium	150-2	97	97	117	103	11.17	cps
Nickel	60-2	862477	857662	849056	856398	0.79	cps
Phosphorus	31-2	132572	132881	132575	132676	0.13	cps
Potassium	39-2	12584697	12338134	12524392	12482408	1.03	cps
Rhodium	103-1	4483747	4561367	4530470	4525195	0.86	cps
Rhodium	103-2	2905961	2886433	2876608	2889667	0.52	cps
Scandium	45-1	2830912	2774702	2819757	2808457	1.06	cps
Scandium	45-2	259579	263405	259639	260874	0.84	cps
Selenium	82-1	101565	104179	102337	102694	1.31	cps
Selenium	77-2	12148	12602	11965	12238	2.68	cps
Selenium	78-2	42016	41418	41167	41534	1.05	cps
Silicon	28-1	18380855	18613432	18671946	18555411	0.83	cps
Silver	107-1	6513090	6548061	6540709	6533953	0.28	cps
Silver	109-1	6209779	6221532	6231179	6220830	0.17	cps
Sodium	23-2	31061322	31020722	31385390	31155811	0.64	cps
Strontium	86-1	1563308	1591286	1610390	1588328	1.49	cps
Strontium	88-1	13690631	13930312	14063338	13894760	1.36	cps
Sulfur	34-1	509072	521702	513875	514883	1.24	cps
Terbium	159-1	6075129	6207038	6136455	6139541	1.08	cps
Terbium	159-2	4795082	4709666	4680993	4728581	1.26	cps
Thallium	203-1	4691297	4708351	4827833	4742494	1.57	cps
Thallium	205-1	11269452	11455155	11279092	11334566	0.92	cps
Tin	118-1	3953673	4078663	4119712	4050683	2.14	cps
Titanium	47-1	6339826	6409660	6421292	6390259	0.69	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S7 Instrumnet Name : P7
Client Sample ID : S7 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:31:06 DataFile Name : 012CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	14994562	15218779	14852151	15021831	1.23	cps
Vanadium	51-2	1814636	1824628	1838287	1825850	0.65	cps
Yttrium	89-1	7202468	7163686	7205451	7190535	0.32	cps
Yttrium	89-2	2134405	2140583	2133035	2136008	0.19	cps
Zinc	66-2	4826049	4804509	4794359	4808306	0.34	cps
Zirconium	90-1	8337137	8603931	8606422	8515830	1.82	cps
Zirconium	91-1	1867523	1913445	1891496	1890822	1.21	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S8 Instrumnet Name : P7
Client Sample ID : S8 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:33:50 DataFile Name : 013CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	12422176	12417055	12416756	12418662	0.02	cps
Antimony	121-1	1950	2357	2490	2266	12.42	cps
Arsenic	75-2	160	137	197	164	18.39	cps
Barium	135-1	2324	2717	2880	2640	10.84	cps
Barium	137-1	4244	4704	4908	4619	7.36	cps
Beryllium	9-1	149	94	94	112	28.50	cps
Bismuth	209-1	4157925	3633421	3560017	3783788	8.62	cps
Bismuth	209-2	3258493	3179637	3162800	3200310	1.60	cps
Bromine	81-1	26210	27542	27826	27193	3.17	cps
Bromine	81-2	260	203	223	229	12.56	cps
Cadmium	108-1	47	47	47	47	0.00	cps
Cadmium	106-1	2304	2024	1957	2095	8.78	cps
Cadmium	111-1	1833	1620	1604	1686	7.59	cps
Calcium	43-1	5902361	6885919	6913421	6567234	8.77	cps
Calcium	44-1	100372535	114065875	114455265	109631225	7.32	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	20284	19846	19446	19859	2.11	cps
Cobalt	59-2	9336	9727	9610	9558	2.10	cps
Copper	63-2	8673	9126	8963	8921	2.58	cps
Dysprosium	156-1	137	210	187	178	21.07	cps
Dysprosium	156-2	143	117	137	132	10.50	cps
Erbium	164-1	193	257	287	246	19.40	cps
Erbium	164-2	193	190	157	180	11.26	cps
Gadolinium	160-1	170	203	200	191	9.61	cps
Gadolinium	160-2	430	380	400	403	6.24	cps
Holmium	165-1	7167192	6446897	6268696	6627595	7.18	cps
Holmium	165-2	4759173	4790208	4667518	4738966	1.35	cps
Indium	115-1	5797585	5090150	5005334	5297690	8.21	cps
Indium	115-2	2011905	2047090	1923644	1994213	3.19	cps
Iron	56-2	515182819	508399272	508478606	510686899	0.76	cps
Iron	57-2	12972058	12768821	12727220	12822700	1.02	cps
Iron	54-2	28219750	28165805	27703100	28029552	1.01	cps
Krypton	83-1	350	450	337	379	16.35	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S8 Instrumnet Name : P7
Client Sample ID : S8 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:33:50 DataFile Name : 013CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	8493	9573	10157	9408	8.98	cps
Lead	207-1	7879	9010	9070	8653	7.75	cps
Lead	208-1	35101	39620	40437	38386	7.49	cps
Lithium	6-1	778552	671212	653708	701157	9.64	cps
Magnesium	24-2	104702675	103413205	103516208	103877363	0.69	cps
Manganese	55-2	13173	13286	12739	13066	2.21	cps
Molybdenum	94-1	3911	4694	4757	4454	10.59	cps
Molybdenum	95-1	3110	3981	4254	3782	15.79	cps
Molybdenum	96-1	14548	16987	17564	16366	9.78	cps
Molybdenum	97-1	2357	2560	2837	2585	9.32	cps
Molybdenum	98-1	5181	5801	6341	5775	10.06	cps
Neodymium	150-1	100	70	120	97	26.03	cps
Neodymium	150-2	77	77	107	87	19.98	cps
Nickel	60-2	3961	3844	3714	3839	3.21	cps
Phosphorus	31-2	367	363	380	370	2.38	cps
Potassium	39-2	68143059	67913881	67887287	67981409	0.21	cps
Rhodium	103-1	5209619	4641354	4516434	4789136	7.71	cps
Rhodium	103-2	2869941	2896030	2761074	2842348	2.52	cps
Scandium	45-1	3432071	3048185	2979334	3153197	7.74	cps
Scandium	45-2	283287	285351	281619	283419	0.66	cps
Selenium	82-1	367	332	413	371	10.99	cps
Selenium	77-2	7	7	10	8	24.71	cps
Selenium	78-2	633	663	680	659	3.59	cps
Silicon	28-1	875565	903282	1189840	989562	17.58	cps
Silver	107-1	537	670	867	691	24.02	cps
Silver	109-1	560	680	737	659	13.69	cps
Sodium	23-2	165932418	162859754	163089294	163960489	1.04	cps
Strontium	86-1	5604	6048	6168	5940	5.00	cps
Strontium	88-1	44037	50115	49965	48039	7.22	cps
Sulfur	34-1	105868	113897	118838	112868	5.80	cps
Terbium	159-1	7484080	6585131	6392461	6820557	8.54	cps
Terbium	159-2	4816432	4769527	4627761	4737906	2.07	cps
Thallium	203-1	643	667	697	669	4.00	cps
Thallium	205-1	1463	1550	1613	1542	4.88	cps
Tin	118-1	1543	1583	1583	1570	1.47	cps
Titanium	47-1	360	437	620	472	28.29	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : S8 Instrumnet Name : P7
Client Sample ID : S8 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:33:50 DataFile Name : 013CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	770	707	887	788	11.59	cps
Vanadium	51-2	633	627	537	599	9.02	cps
Yttrium	89-1	8817947	7748764	7595852	8054188	8.27	cps
Yttrium	89-2	2300587	2265081	2220789	2262152	1.77	cps
Zinc	66-2	8923	9383	8873	9059	3.11	cps
Zirconium	90-1	4011	4481	4561	4351	6.83	cps
Zirconium	91-1	840	960	1037	946	10.48	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : ICV01 Instrumnet Name : P7
Client Sample ID : ICV01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:58:50 DataFile Name : 015ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	60161	60361	59997	60173	0.30	cps
Antimony	121-1	958117	987215	989162	978164	1.78	cps
Arsenic	75-2	65514	65413	66877	65935	1.24	cps
Barium	135-1	128957	129163	129933	129351	0.40	cps
Barium	137-1	223142	222986	225457	223862	0.62	cps
Beryllium	9-1	69151	67580	68569	68433	1.16	cps
Bismuth	209-1	3748970	3946767	3846162	3847299	2.57	cps
Bismuth	209-2	3541079	3537749	3498435	3525754	0.67	cps
Bromine	81-1	28097	29934	29419	29150	3.25	cps
Bromine	81-2	327	260	260	282	13.64	cps
Cadmium	108-1	9957	9560	9083	9533	4.59	cps
Cadmium	106-1	15138	15302	15528	15323	1.28	cps
Cadmium	111-1	145822	150917	152487	149742	2.33	cps
Calcium	43-1	27772	27973	28123	27956	0.63	cps
Calcium	44-1	456842	474029	474072	468314	2.12	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	234175	233984	236507	234889	0.60	cps
Cobalt	59-2	370797	371974	374929	372567	0.57	cps
Copper	63-2	259217	259117	261068	259801	0.42	cps
Dysprosium	156-1	10	17	7	11	45.82	cps
Dysprosium	156-2	17	3	10	10	66.70	cps
Erbium	164-1	47	30	23	33	36.07	cps
Erbium	164-2	63	27	43	44	41.30	cps
Gadolinium	160-1	47	23	20	30	48.44	cps
Gadolinium	160-2	250	287	293	277	8.43	cps
Holmium	165-1	6288693	6041465	6133272	6154477	2.03	cps
Holmium	165-2	4725527	4803266	4761270	4763354	0.82	cps
Indium	115-1	5282678	5221574	5118463	5207572	1.59	cps
Indium	115-2	2114864	2140948	2097273	2117695	1.04	cps
Iron	56-2	4233549	4228289	4251612	4237817	0.29	cps
Iron	57-2	110795	110476	111480	110917	0.46	cps
Iron	54-2	249429	247428	251389	249415	0.79	cps
Krypton	83-1	347	417	443	402	12.41	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : ICV01 Instrumnet Name : P7
Client Sample ID : ICV01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:58:50 DataFile Name : 015ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	755778	782642	780007	772809	1.92	cps
Lead	207-1	648807	650276	650165	649749	0.13	cps
Lead	208-1	2984874	3018877	3012060	3005270	0.60	cps
Lithium	6-1	579470	607333	619283	602029	3.39	cps
Magnesium	24-2	231744	233730	234674	233383	0.64	cps
Manganese	55-2	186663	187356	187777	187265	0.30	cps
Molybdenum	94-1	227	240	213	227	5.88	cps
Molybdenum	95-1	107	93	120	107	12.50	cps
Molybdenum	96-1	333	363	340	346	4.56	cps
Molybdenum	97-1	70	83	97	83	16.00	cps
Molybdenum	98-1	200	213	147	187	18.90	cps
Neodymium	150-1	13	13	10	12	15.73	cps
Neodymium	150-2	7	0	7	4	86.60	cps
Nickel	60-2	96401	96746	97826	96991	0.77	cps
Phosphorus	31-2	320	323	403	349	13.52	cps
Potassium	39-2	605956	606345	612082	608128	0.56	cps
Rhodium	103-1	5063575	4873124	4911407	4949368	2.04	cps
Rhodium	103-2	3203682	3108430	3141116	3151076	1.54	cps
Scandium	45-1	2882287	2902818	2936872	2907326	0.95	cps
Scandium	45-2	283948	285625	287822	285799	0.68	cps
Selenium	82-1	23550	23480	23846	23625	0.82	cps
Selenium	77-2	2667	2937	2927	2844	5.38	cps
Selenium	78-2	10254	10617	10717	10529	2.32	cps
Silicon	28-1	1236663	1213770	1224180	1224871	0.94	cps
Silver	107-1	340729	348655	350907	346764	1.54	cps
Silver	109-1	326782	332081	330833	329898	0.84	cps
Sodium	23-2	660211	663575	664286	662691	0.33	cps
Strontium	86-1	983	1137	1110	1077	7.61	cps
Strontium	88-1	3741	3570	3877	3729	4.12	cps
Sulfur	34-1	114223	115012	115190	114808	0.45	cps
Terbium	159-1	6342307	6153091	6216407	6237269	1.54	cps
Terbium	159-2	4747595	4781732	4808208	4779178	0.64	cps
Thallium	203-1	936284	928094	934856	933078	0.47	cps
Thallium	205-1	2260248	2331224	2352216	2314563	2.08	cps
Tin	118-1	857	880	907	881	2.84	cps
Titanium	47-1	100	50	70	73	34.32	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : ICV01 Instrumnet Name : P7
Client Sample ID : ICV01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 14:58:50 DataFile Name : 015ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	33	7	17	19	71.30	cps
Vanadium	51-2	198085	197152	201406	198881	1.12	cps
Yttrium	89-1	7473717	7577219	7540734	7530557	0.70	cps
Yttrium	89-2	2301696	2252936	2296137	2283590	1.17	cps
Zinc	66-2	97402	96057	98274	97244	1.15	cps
Zirconium	90-1	423	457	493	458	7.65	cps
Zirconium	91-1	173	173	150	166	8.14	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : LLICV Instrumnet Name : P7
Client Sample ID : LLICV Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:17:08 DataFile Name : 019LLIC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	3007	2877	2970	2951	2.27	cps
Antimony	121-1	10147	10054	10587	10263	2.78	cps
Arsenic	75-2	433	370	300	368	18.13	cps
Barium	135-1	12863	13163	13029	13018	1.16	cps
Barium	137-1	21840	22692	22054	22195	2.00	cps
Beryllium	9-1	795	792	838	808	3.23	cps
Bismuth	209-1	3865059	3870886	3795755	3843900	1.09	cps
Bismuth	209-2	3424635	3415312	3421992	3420646	0.14	cps
Bromine	81-1	28264	27552	27977	27931	1.28	cps
Bromine	81-2	243	210	250	234	9.14	cps
Cadmium	108-1	97	143	153	131	23.07	cps
Cadmium	106-1	1863	1937	1810	1870	3.40	cps
Cadmium	111-1	2894	2792	2550	2745	6.43	cps
Calcium	43-1	7705	7802	7472	7660	2.22	cps
Calcium	44-1	130321	132175	131310	131269	0.71	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	5888	5795	5651	5778	2.06	cps
Cobalt	59-2	4127	3857	4011	3998	3.39	cps
Copper	63-2	6845	6712	7142	6899	3.19	cps
Dysprosium	156-1	7	10	10	9	21.63	cps
Dysprosium	156-2	3	0	7	3	100.05	cps
Erbium	164-1	37	47	50	44	15.61	cps
Erbium	164-2	30	30	40	33	17.32	cps
Gadolinium	160-1	33	10	40	28	56.71	cps
Gadolinium	160-2	270	210	293	258	16.68	cps
Holmium	165-1	6152030	6107594	6121682	6127102	0.37	cps
Holmium	165-2	4684618	4641516	4647864	4657999	0.50	cps
Indium	115-1	5213804	5212208	5238413	5221475	0.28	cps
Indium	115-2	2085088	2057107	2036644	2059613	1.18	cps
Iron	56-2	142323	137506	139685	139838	1.72	cps
Iron	57-2	4487	4364	4334	4395	1.85	cps
Iron	54-2	9290	8979	9300	9190	1.98	cps
Krypton	83-1	393	390	330	371	9.60	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : LLICV Instrumnet Name : P7
Client Sample ID : LLICV Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:17:08 DataFile Name : 019LLIC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	4501	4591	4537	4543	1.00	cps
Lead	207-1	3954	4094	4157	4068	2.56	cps
Lead	208-1	17871	18559	18568	18333	2.18	cps
Lithium	6-1	605989	606113	599978	604027	0.58	cps
Magnesium	24-2	109019	106233	105190	106814	1.85	cps
Manganese	55-2	3984	3954	3831	3923	2.07	cps
Molybdenum	94-1	10857	11131	10871	10953	1.41	cps
Molybdenum	95-1	13500	13373	13219	13364	1.05	cps
Molybdenum	96-1	14914	15385	15221	15174	1.57	cps
Molybdenum	97-1	8156	8599	8259	8338	2.78	cps
Molybdenum	98-1	21433	21516	21800	21583	0.89	cps
Neodymium	150-1	0	7	7	4	86.60	cps
Neodymium	150-2	3	3	0	2	86.60	cps
Nickel	60-2	1203	1230	1197	1210	1.46	cps
Phosphorus	31-2	580	647	590	606	5.94	cps
Potassium	39-2	197328	195616	192764	195236	1.18	cps
Rhodium	103-1	4965638	4931408	5011343	4969463	0.81	cps
Rhodium	103-2	3206314	3054216	3131046	3130525	2.43	cps
Scandium	45-1	2931266	2920546	2863032	2904948	1.26	cps
Scandium	45-2	286541	283828	282250	284206	0.76	cps
Selenium	82-1	764	774	805	781	2.73	cps
Selenium	77-2	77	67	33	59	38.54	cps
Selenium	78-2	920	960	920	933	2.47	cps
Silicon	28-1	1178565	1242878	1206834	1209426	2.67	cps
Silver	107-1	7242	7148	6968	7120	1.95	cps
Silver	109-1	6758	7125	6725	6869	3.23	cps
Sodium	23-2	187878	184417	182966	185087	1.36	cps
Strontium	86-1	2247	2320	2470	2346	4.85	cps
Strontium	88-1	15555	15585	15311	15484	0.97	cps
Sulfur	34-1	116080	117198	115163	116147	0.88	cps
Terbium	159-1	6411763	6380106	6358869	6383579	0.42	cps
Terbium	159-2	4810968	4650800	4704089	4721952	1.73	cps
Thallium	203-1	5044	4851	5054	4983	2.30	cps
Thallium	205-1	11468	11488	12009	11655	2.63	cps
Tin	118-1	22848	23132	23292	23091	0.97	cps
Titanium	47-1	3500	3410	3417	3443	1.46	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : LLICV Instrumnet Name : P7
Client Sample ID : LLICV Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:17:08 DataFile Name : 019LLIC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	14792	15172	14688	14884	1.71	cps
Vanadium	51-2	10434	10230	9843	10169	2.95	cps
Yttrium	89-1	7501871	7655745	7564405	7574007	1.02	cps
Yttrium	89-2	2296875	2237286	2226609	2253590	1.68	cps
Zinc	66-2	2984	3084	2894	2987	3.18	cps
Zirconium	90-1	9256	9710	9510	9492	2.40	cps
Zirconium	91-1	2120	2047	2014	2060	2.65	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : ICB01 Instrumnet Name : P7
Client Sample ID : ICB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:20:36 DataFile Name : 020_ICB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	480	397	457	444	9.67	cps
Antimony	121-1	87	53	57	66	28.01	cps
Arsenic	75-2	7	7	3	6	34.70	cps
Barium	135-1	13	20	17	17	20.01	cps
Barium	137-1	40	37	33	37	9.10	cps
Beryllium	9-1	17	34	41	31	39.09	cps
Bismuth	209-1	3800521	3866120	3896318	3854320	1.27	cps
Bismuth	209-2	3557811	3533545	3580517	3557291	0.66	cps
Bromine	81-1	28434	28261	27947	28214	0.88	cps
Bromine	81-2	193	247	253	231	14.23	cps
Cadmium	108-1	0	13	0	4	173.21	cps
Cadmium	106-1	1890	1740	1807	1812	4.15	cps
Cadmium	111-1	1330	1225	1291	1282	4.12	cps
Calcium	43-1	390	410	363	388	6.04	cps
Calcium	44-1	9056	8856	8880	8931	1.23	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	950	1050	913	971	7.28	cps
Cobalt	59-2	77	90	70	79	12.91	cps
Copper	63-2	1647	1600	1503	1583	4.62	cps
Dysprosium	156-1	13	0	7	7	99.98	cps
Dysprosium	156-2	13	3	0	6	124.93	cps
Erbium	164-1	60	47	40	49	20.83	cps
Erbium	164-2	33	20	23	26	27.15	cps
Gadolinium	160-1	13	40	27	27	50.01	cps
Gadolinium	160-2	250	287	247	261	8.50	cps
Holmium	165-1	6161200	6351544	6157921	6223555	1.78	cps
Holmium	165-2	4835044	4778160	4767332	4793512	0.76	cps
Indium	115-1	5200783	5279941	5242093	5240939	0.76	cps
Indium	115-2	2087123	2047554	2101734	2078804	1.35	cps
Iron	56-2	25068	24283	23448	24266	3.34	cps
Iron	57-2	1377	1360	1303	1347	2.86	cps
Iron	54-2	2627	2977	2787	2797	6.27	cps
Krypton	83-1	353	283	363	333	13.08	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : ICB01 Instrumnet Name : P7
Client Sample ID : ICB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:20:36 DataFile Name : 020_ICB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	857	770	737	788	7.86	cps
Lead	207-1	637	730	570	646	12.45	cps
Lead	208-1	3013	3060	2883	2986	3.07	cps
Lithium	6-1	596739	599209	601749	599233	0.42	cps
Magnesium	24-2	203	197	143	181	18.16	cps
Manganese	55-2	1943	1987	1793	1908	5.32	cps
Molybdenum	94-1	123	127	153	134	12.23	cps
Molybdenum	95-1	63	40	43	49	25.81	cps
Molybdenum	96-1	143	143	167	151	8.91	cps
Molybdenum	97-1	30	30	63	41	46.81	cps
Molybdenum	98-1	63	50	63	59	13.07	cps
Neodymium	150-1	7	3	3	4	43.40	cps
Neodymium	150-2	3	3	3	3	0.00	cps
Nickel	60-2	257	167	237	220	21.48	cps
Phosphorus	31-2	323	310	360	331	7.82	cps
Potassium	39-2	51209	50527	50115	50617	1.09	cps
Rhodium	103-1	4975516	4967972	4931741	4958410	0.47	cps
Rhodium	103-2	3145099	3062936	3109009	3105681	1.33	cps
Scandium	45-1	2945561	2915767	2927833	2929720	0.51	cps
Scandium	45-2	281046	278593	278413	279351	0.53	cps
Selenium	82-1	194	297	177	223	29.12	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	787	690	760	746	6.70	cps
Silicon	28-1	1220015	1222853	1189961	1210943	1.51	cps
Silver	107-1	43	40	60	48	22.43	cps
Silver	109-1	17	43	23	28	49.95	cps
Sodium	23-2	16652	15888	16522	16354	2.50	cps
Strontium	86-1	563	600	533	566	5.90	cps
Strontium	88-1	70	117	73	87	30.04	cps
Sulfur	34-1	114948	116143	114622	115238	0.69	cps
Terbium	159-1	6281057	6444942	6365065	6363688	1.29	cps
Terbium	159-2	4823530	4778859	4772456	4791615	0.58	cps
Thallium	203-1	113	110	120	114	4.45	cps
Thallium	205-1	323	370	330	341	7.40	cps
Tin	118-1	807	890	903	867	6.04	cps
Titanium	47-1	43	37	47	42	12.06	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : ICB01 Instrumnet Name : P7
Client Sample ID : ICB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:20:36 DataFile Name : 020_ICB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	10	3	13	9	57.30	cps
Vanadium	51-2	7	7	10	8	24.71	cps
Yttrium	89-1	7387854	7611550	7617484	7538963	1.74	cps
Yttrium	89-2	2305820	2239203	2209182	2251402	2.20	cps
Zinc	66-2	383	343	373	367	5.68	cps
Zirconium	90-1	280	227	330	279	18.53	cps
Zirconium	91-1	33	97	83	71	46.96	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : ICSA01 Instrumnet Name : P7
Client Sample ID : ICSA01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:24:44 DataFile Name : 021ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	11515177	11669346	11550338	11578287	0.70	cps
Antimony	121-1	6765	6545	6408	6573	2.74	cps
Arsenic	75-2	150	120	77	116	31.90	cps
Barium	135-1	2087	2140	2187	2138	2.34	cps
Barium	137-1	3681	3390	3564	3545	4.12	cps
Beryllium	9-1	200	264	226	230	13.91	cps
Bismuth	209-1	3736045	3779438	3827868	3781117	1.21	cps
Bismuth	209-2	3463616	3451691	3427424	3447577	0.53	cps
Bromine	81-1	28237	27980	28367	28195	0.70	cps
Bromine	81-2	337	357	420	371	11.72	cps
Cadmium	108-1	780	747	717	748	4.24	cps
Cadmium	106-1	1753	1737	1673	1721	2.45	cps
Cadmium	111-1	1578	1660	1630	1623	2.55	cps
Calcium	43-1	1382553	1374583	1382213	1379783	0.33	cps
Calcium	44-1	22599286	23603865	22913729	23038960	2.23	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	47287	47043	47056	47129	0.29	cps
Cobalt	59-2	4724	4594	4534	4617	2.10	cps
Copper	63-2	27649	27191	27155	27332	1.01	cps
Dysprosium	156-1	57	13	30	33	65.58	cps
Dysprosium	156-2	20	13	20	18	21.66	cps
Erbium	164-1	53	73	63	63	15.79	cps
Erbium	164-2	57	47	47	50	11.55	cps
Gadolinium	160-1	20	57	13	30	77.79	cps
Gadolinium	160-2	257	267	303	276	8.92	cps
Holmium	165-1	6303581	6325999	6380634	6336738	0.63	cps
Holmium	165-2	4815333	4864839	4746782	4808985	1.23	cps
Indium	115-1	5178237	5118412	5199355	5165334	0.81	cps
Indium	115-2	2053371	2082674	2052764	2062936	0.83	cps
Iron	56-2	215056950	211764784	213301677	213374470	0.77	cps
Iron	57-2	5307189	5221810	5205203	5244734	1.04	cps
Iron	54-2	11686733	11773295	11601555	11687194	0.73	cps
Krypton	83-1	397	417	447	420	5.99	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : ICSA01 Instrumnet Name : P7
Client Sample ID : ICSA01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:24:44 DataFile Name : 021ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	20759	20863	20950	20857	0.46	cps
Lead	207-1	15949	15589	15853	15797	1.18	cps
Lead	208-1	76540	76798	75557	76299	0.86	cps
Lithium	6-1	600039	630941	615806	615595	2.51	cps
Magnesium	24-2	19836378	19914770	19784978	19845375	0.33	cps
Manganese	55-2	16216	16429	16576	16407	1.10	cps
Molybdenum	94-1	3009786	3113509	3058285	3060527	1.70	cps
Molybdenum	95-1	5307475	5354187	5366692	5342785	0.58	cps
Molybdenum	96-1	5804301	5695112	5736585	5745332	0.96	cps
Molybdenum	97-1	3357600	3319606	3313845	3330350	0.71	cps
Molybdenum	98-1	8483707	8657234	8628031	8589657	1.08	cps
Neodymium	150-1	30	23	23	26	15.07	cps
Neodymium	150-2	10	10	13	11	17.30	cps
Nickel	60-2	6008	5668	5861	5846	2.92	cps
Phosphorus	31-2	724143	725946	726722	725604	0.18	cps
Potassium	39-2	27313985	26948582	26887670	27050079	0.85	cps
Rhodium	103-1	4856649	4742115	4766924	4788563	1.26	cps
Rhodium	103-2	3057567	3037776	2958262	3017869	1.74	cps
Scandium	45-1	2883549	2908003	2806892	2866148	1.84	cps
Scandium	45-2	272875	271310	272870	272352	0.33	cps
Selenium	82-1	187	169	184	180	5.59	cps
Selenium	77-2	3	10	0	4	114.60	cps
Selenium	78-2	750	610	637	666	11.17	cps
Silicon	28-1	1170448	868668	859514	966210	18.31	cps
Silver	107-1	157	220	270	216	26.35	cps
Silver	109-1	107	163	257	176	43.14	cps
Sodium	23-2	33698564	33878928	33359858	33645783	0.78	cps
Strontium	86-1	60688	60704	60691	60694	0.01	cps
Strontium	88-1	526944	537086	534834	532955	1.00	cps
Sulfur	34-1	2201032	2184686	2185197	2190305	0.42	cps
Terbium	159-1	6582390	6428681	6405323	6472131	1.49	cps
Terbium	159-2	4870341	4854117	4757134	4827197	1.27	cps
Thallium	203-1	393	407	567	456	21.17	cps
Thallium	205-1	767	1013	1120	967	18.75	cps
Tin	118-1	3000	3480	3640	3374	9.87	cps
Titanium	47-1	1339583	1386161	1346936	1357560	1.84	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : ICSA01 Instrumnet Name : P7
Client Sample ID : ICSA01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:24:44 DataFile Name : 021ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	393	450	287	377	22.02	cps
Vanadium	51-2	383	410	383	392	3.93	cps
Yttrium	89-1	7594042	7443086	7683067	7573398	1.60	cps
Yttrium	89-2	2217985	2240772	2207682	2222146	0.76	cps
Zinc	66-2	7265	7482	7248	7332	1.78	cps
Zirconium	90-1	567	593	633	598	5.61	cps
Zirconium	91-1	110	113	150	124	17.83	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : ICSAB01 Instrumnet Name : P7
Client Sample ID : ICSAB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:27:51 DataFile Name : 022ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	11075452	10821503	11043109	10980021	1.26	cps
Antimony	121-1	104909	107643	106789	106447	1.31	cps
Arsenic	75-2	6512	6491	6655	6553	1.36	cps
Barium	135-1	28846	27998	28198	28347	1.56	cps
Barium	137-1	49191	49148	49332	49224	0.20	cps
Beryllium	9-1	14723	14028	14305	14352	2.44	cps
Bismuth	209-1	3898108	3896568	3894425	3896367	0.05	cps
Bismuth	209-2	3579602	3588155	3543014	3570257	0.67	cps
Bromine	81-1	29296	29724	30288	29769	1.67	cps
Bromine	81-2	393	383	350	376	6.04	cps
Cadmium	108-1	2960	2914	2810	2895	2.65	cps
Cadmium	106-1	5334	5204	5181	5240	1.58	cps
Cadmium	111-1	29859	31067	30799	30575	2.07	cps
Calcium	43-1	1345191	1330543	1334425	1336720	0.57	cps
Calcium	44-1	22233751	22371827	22510583	22372054	0.62	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	90386	90741	91418	90848	0.58	cps
Cobalt	59-2	75897	74896	75361	75385	0.66	cps
Copper	63-2	76699	75744	75851	76098	0.69	cps
Dysprosium	156-1	20	33	20	24	31.49	cps
Dysprosium	156-2	40	30	20	30	33.33	cps
Erbium	164-1	67	53	50	57	15.57	cps
Erbium	164-2	53	70	50	58	18.55	cps
Gadolinium	160-1	50	37	33	40	22.05	cps
Gadolinium	160-2	317	323	307	316	2.66	cps
Holmium	165-1	6478713	6398191	6513007	6463304	0.91	cps
Holmium	165-2	5021900	4976815	4919207	4972641	1.04	cps
Indium	115-1	5190715	5290689	5184142	5221849	1.14	cps
Indium	115-2	2066986	2109415	2048524	2074975	1.50	cps
Iron	56-2	203067710	200475424	202440270	201994468	0.67	cps
Iron	57-2	5031039	4990174	5004695	5008636	0.41	cps
Iron	54-2	11206002	11189024	11238238	11211088	0.22	cps
Krypton	83-1	373	347	377	366	4.50	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : ICSAB01 Instrumnet Name : P7
Client Sample ID : ICSAB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:27:51 DataFile Name : 022ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	100676	98171	100518	99788	1.41	cps
Lead	207-1	83497	84212	83820	83843	0.43	cps
Lead	208-1	389146	384836	386968	386984	0.56	cps
Lithium	6-1	628055	603452	620782	617430	2.05	cps
Magnesium	24-2	18820597	18732942	18707059	18753533	0.32	cps
Manganese	55-2	53097	52769	52615	52827	0.47	cps
Molybdenum	94-1	3152115	3252916	3185939	3196990	1.60	cps
Molybdenum	95-1	5255011	5292314	5223476	5256934	0.66	cps
Molybdenum	96-1	5599184	5767226	5704286	5690232	1.49	cps
Molybdenum	97-1	3266447	3336576	3267120	3290048	1.22	cps
Molybdenum	98-1	8474521	8610282	8468670	8517824	0.94	cps
Neodymium	150-1	23	30	23	26	15.07	cps
Neodymium	150-2	23	30	10	21	48.24	cps
Nickel	60-2	24310	23739	23382	23810	1.97	cps
Phosphorus	31-2	693271	690023	690865	691387	0.24	cps
Potassium	39-2	26098274	25808447	25814215	25906979	0.64	cps
Rhodium	103-1	4931847	4904617	4867176	4901213	0.66	cps
Rhodium	103-2	3097114	3039777	3024530	3053807	1.25	cps
Scandium	45-1	2983286	2939366	2960317	2960990	0.74	cps
Scandium	45-2	276492	276813	278887	277397	0.47	cps
Selenium	82-1	2348	2564	2379	2430	4.79	cps
Selenium	77-2	260	267	240	256	5.43	cps
Selenium	78-2	1567	1647	1650	1621	2.91	cps
Silicon	28-1	1252396	1268867	1266989	1262751	0.71	cps
Silver	107-1	136730	139985	138190	138302	1.18	cps
Silver	109-1	129926	132472	129308	130569	1.28	cps
Sodium	23-2	32368027	32009491	32394170	32257229	0.67	cps
Strontium	86-1	141036	141874	141230	141380	0.31	cps
Strontium	88-1	1233496	1252839	1255790	1247375	0.97	cps
Sulfur	34-1	2162445	2136160	2222051	2173552	2.02	cps
Terbium	159-1	6648222	6749881	6705980	6701361	0.76	cps
Terbium	159-2	4858492	4928061	4988448	4925000	1.32	cps
Thallium	203-1	98721	99893	100108	99574	0.75	cps
Thallium	205-1	234505	235058	233222	234262	0.40	cps
Tin	118-1	210011	214256	212882	212383	1.02	cps
Titanium	47-1	1340141	1331517	1343994	1338551	0.48	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : ICSAB01 Instrumnet Name : P7
Client Sample ID : ICSAB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:27:51 DataFile Name : 022ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	755514	752094	765405	757671	0.91	cps
Vanadium	51-2	39438	39117	39228	39261	0.41	cps
Yttrium	89-1	7867133	7769142	7718818	7785031	0.97	cps
Yttrium	89-2	2277145	2290692	2311477	2293104	0.75	cps
Zinc	66-2	16342	16473	16192	16336	0.86	cps
Zirconium	90-1	452177	454474	455049	453900	0.33	cps
Zirconium	91-1	101001	103411	102367	102260	1.18	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCV01 Instrumnet Name : P7
Client Sample ID : CCV01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:30:55 DataFile Name : 023CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	6149494	6103996	6141527	6131672	0.40	cps
Antimony	121-1	2428594	2465317	2478014	2457308	1.04	cps
Arsenic	75-2	158898	157988	159383	158756	0.45	cps
Barium	135-1	3248899	3320277	3308190	3292455	1.16	cps
Barium	137-1	5717001	5830610	5778891	5775500	0.98	cps
Beryllium	9-1	348210	350205	352620	350345	0.63	cps
Bismuth	209-1	3835069	3813279	3792862	3813737	0.55	cps
Bismuth	209-2	3305029	3403719	3372501	3360416	1.50	cps
Bromine	81-1	27082	27502	28761	27782	3.15	cps
Bromine	81-2	180	160	173	171	5.95	cps
Cadmium	108-1	50026	50578	51190	50598	1.15	cps
Cadmium	106-1	72296	72262	73776	72778	1.19	cps
Cadmium	111-1	682577	700050	701765	694797	1.53	cps
Calcium	43-1	3278675	3426831	3432612	3379373	2.58	cps
Calcium	44-1	55654368	56026634	57840096	56507032	2.07	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1130263	1134008	1133350	1132540	0.18	cps
Cobalt	59-2	1778288	1764346	1727278	1756637	1.50	cps
Copper	63-2	13219066	13124593	12979678	13107779	0.92	cps
Dysprosium	156-1	127	120	123	123	2.70	cps
Dysprosium	156-2	207	223	173	201	12.66	cps
Erbium	164-1	153	163	153	157	3.69	cps
Erbium	164-2	147	153	127	142	9.76	cps
Gadolinium	160-1	103	83	137	108	25.00	cps
Gadolinium	160-2	320	313	370	334	9.26	cps
Holmium	165-1	6490017	6501264	6532147	6507809	0.34	cps
Holmium	165-2	4807936	4911811	4828620	4849456	1.13	cps
Indium	115-1	5139127	5267016	5137408	5181184	1.43	cps
Indium	115-2	2033120	2023735	2038276	2031711	0.36	cps
Iron	56-2	258556976	257271236	253657610	256495274	0.99	cps
Iron	57-2	6537467	6386703	6341207	6421792	1.60	cps
Iron	54-2	14158039	13952176	13999246	14036487	0.77	cps
Krypton	83-1	373	423	373	390	7.40	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCV01 Instrumnet Name : P7
Client Sample ID : CCV01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:30:55 DataFile Name : 023CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	9853237	9868945	9908154	9876779	0.29	cps
Lead	207-1	8636436	8835213	8783646	8751765	1.18	cps
Lead	208-1	39352102	39520360	39769135	39547199	0.53	cps
Lithium	6-1	636454	630154	620384	628997	1.29	cps
Magnesium	24-2	50895866	49966654	50203606	50355375	0.96	cps
Manganese	55-2	9919147	9826595	9828437	9858060	0.54	cps
Molybdenum	94-1	9087718	9333312	9309430	9243487	1.47	cps
Molybdenum	95-1	13143829	13225943	13461140	13276971	1.24	cps
Molybdenum	96-1	14300990	14585968	14495029	14460662	1.01	cps
Molybdenum	97-1	7962413	8216733	8302256	8160468	2.17	cps
Molybdenum	98-1	20615894	21276212	21542657	21144921	2.26	cps
Neodymium	150-1	167	200	210	192	11.80	cps
Neodymium	150-2	107	67	63	79	30.57	cps
Nickel	60-2	449807	448279	451451	449846	0.35	cps
Phosphorus	31-2	72113	72477	72501	72363	0.30	cps
Potassium	39-2	33789455	33477152	33776729	33681112	0.52	cps
Rhodium	103-1	4777574	4755976	4743624	4759058	0.36	cps
Rhodium	103-2	2952999	2987036	3015968	2985334	1.06	cps
Scandium	45-1	2942926	2908185	2979727	2943613	1.22	cps
Scandium	45-2	281507	284572	285130	283736	0.69	cps
Selenium	82-1	52956	53783	54584	53774	1.51	cps
Selenium	77-2	6692	6381	6378	6484	2.78	cps
Selenium	78-2	22043	22420	22220	22228	0.85	cps
Silicon	28-1	9448482	9588561	9671606	9569549	1.18	cps
Silver	107-1	3394640	3385870	3490856	3423789	1.70	cps
Silver	109-1	3224261	3311172	3273418	3269617	1.33	cps
Sodium	23-2	81634845	79649025	81112825	80798899	1.27	cps
Strontium	86-1	826687	844286	847683	839552	1.34	cps
Strontium	88-1	7274043	7489635	7437414	7400364	1.52	cps
Sulfur	34-1	303130	308991	307542	306554	1.00	cps
Terbium	159-1	6667149	6664201	6684556	6671969	0.16	cps
Terbium	159-2	4833275	4825501	4911406	4856727	0.98	cps
Thallium	203-1	2529136	2498472	2521832	2516480	0.64	cps
Thallium	205-1	5895731	5893280	5950738	5913249	0.55	cps
Tin	118-1	2131265	2121355	2183967	2145529	1.57	cps
Titanium	47-1	3299274	3284157	3348253	3310561	1.01	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCV01 Instrumnet Name : P7
Client Sample ID : CCV01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:30:55 DataFile Name : 023CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	7825845	7941633	8044366	7937281	1.38	cps
Vanadium	51-2	1004705	992708	993019	996811	0.69	cps
Yttrium	89-1	7782298	7847668	7817591	7815852	0.42	cps
Yttrium	89-2	2280389	2262946	2307222	2283519	0.98	cps
Zinc	66-2	2844165	2810119	2825327	2826537	0.60	cps
Zirconium	90-1	4502082	4543448	4676982	4574171	2.00	cps
Zirconium	91-1	1002683	1026825	1027714	1019074	1.39	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCB01 Instrumnet Name : P7
Client Sample ID : CCB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:33:49 DataFile Name : 024CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	330	387	367	361	7.96	cps
Antimony	121-1	410	497	470	459	9.67	cps
Arsenic	75-2	7	13	7	9	43.25	cps
Barium	135-1	47	30	43	40	22.05	cps
Barium	137-1	117	77	47	80	43.90	cps
Beryllium	9-1	68	48	51	56	19.45	cps
Bismuth	209-1	3945747	3901417	4011992	3953052	1.41	cps
Bismuth	209-2	3558082	3508487	3639935	3568835	1.86	cps
Bromine	81-1	28100	28658	29493	28750	2.44	cps
Bromine	81-2	280	207	207	231	18.32	cps
Cadmium	108-1	7	10	7	8	24.71	cps
Cadmium	106-1	1887	1850	1767	1835	3.35	cps
Cadmium	111-1	1383	1335	1272	1330	4.17	cps
Calcium	43-1	427	367	317	370	14.89	cps
Calcium	44-1	10157	9337	9657	9717	4.26	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	900	940	957	932	3.12	cps
Cobalt	59-2	83	87	113	94	17.41	cps
Copper	63-2	3247	3070	3137	3151	2.83	cps
Dysprosium	156-1	7	7	7	7	0.00	cps
Dysprosium	156-2	3	0	3	2	86.60	cps
Erbium	164-1	20	30	47	32	41.81	cps
Erbium	164-2	37	40	40	39	4.94	cps
Gadolinium	160-1	17	33	17	22	43.28	cps
Gadolinium	160-2	257	287	317	287	10.47	cps
Holmium	165-1	6302590	6400593	6307756	6336980	0.87	cps
Holmium	165-2	4839276	4723926	4851076	4804759	1.46	cps
Indium	115-1	5365806	5264866	5308755	5313142	0.95	cps
Indium	115-2	2099998	2101530	2105787	2102438	0.14	cps
Iron	56-2	25889	25949	25535	25791	0.87	cps
Iron	57-2	1287	1173	1400	1287	8.81	cps
Iron	54-2	2774	2814	2684	2757	2.42	cps
Krypton	83-1	337	400	287	341	16.65	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCB01 Instrumnet Name : P7
Client Sample ID : CCB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:33:49 DataFile Name : 024CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	1130	1060	1120	1103	3.43	cps
Lead	207-1	1027	990	877	964	8.11	cps
Lead	208-1	4610	4164	4184	4319	5.84	cps
Lithium	6-1	627457	630183	637832	631824	0.85	cps
Magnesium	24-2	810	800	807	806	0.63	cps
Manganese	55-2	2124	2160	2080	2121	1.89	cps
Molybdenum	94-1	467	417	390	424	9.17	cps
Molybdenum	95-1	457	247	313	339	31.67	cps
Molybdenum	96-1	630	410	390	477	27.94	cps
Molybdenum	97-1	287	190	200	226	23.57	cps
Molybdenum	98-1	740	413	423	526	35.35	cps
Neodymium	150-1	7	3	3	4	43.40	cps
Neodymium	150-2	0	0	0	0	0.00	cps
Nickel	60-2	197	227	197	207	8.38	cps
Phosphorus	31-2	293	333	263	297	11.84	cps
Potassium	39-2	52550	51176	50741	51489	1.83	cps
Rhodium	103-1	4977534	4974621	4958989	4970381	0.20	cps
Rhodium	103-2	3205033	3164644	3086253	3151977	1.92	cps
Scandium	45-1	2873879	2833519	2903757	2870385	1.23	cps
Scandium	45-2	273905	273026	272256	273062	0.30	cps
Selenium	82-1	231	177	343	250	33.90	cps
Selenium	77-2	0	0	3	1	173.21	cps
Selenium	78-2	703	707	697	702	0.73	cps
Silicon	28-1	838110	836963	839575	838216	0.16	cps
Silver	107-1	207	183	170	187	9.94	cps
Silver	109-1	180	90	157	142	32.84	cps
Sodium	23-2	20487	20374	20217	20359	0.67	cps
Strontium	86-1	630	553	647	610	8.16	cps
Strontium	88-1	227	100	143	157	41.09	cps
Sulfur	34-1	97338	99954	98934	98742	1.34	cps
Terbium	159-1	6498551	6494232	6546075	6512952	0.44	cps
Terbium	159-2	4888122	4721570	4850268	4819987	1.81	cps
Thallium	203-1	590	623	583	599	3.58	cps
Thallium	205-1	1527	1437	1343	1436	6.39	cps
Tin	118-1	1137	1147	1030	1104	5.85	cps
Titanium	47-1	133	60	57	83	52.00	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCB01 Instrumnet Name : P7
Client Sample ID : CCB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:33:49 DataFile Name : 024CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	183	47	70	100	73.11	cps
Vanadium	51-2	13	13	20	16	24.76	cps
Yttrium	89-1	7423947	7643600	7511097	7526215	1.47	cps
Yttrium	89-2	2320785	2284725	2263500	2289670	1.26	cps
Zinc	66-2	437	483	353	424	15.52	cps
Zirconium	90-1	707	667	703	692	3.21	cps
Zirconium	91-1	177	143	133	151	15.01	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CRI Instrumnet Name : P7
Client Sample ID : CRI Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:37:07 DataFile Name : 025LLCC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2654	2590	2724	2656	2.51	cps
Antimony	121-1	9763	10170	10210	10048	2.46	cps
Arsenic	75-2	393	387	293	358	15.63	cps
Barium	135-1	12536	12602	12826	12655	1.20	cps
Barium	137-1	21586	22381	22665	22211	2.52	cps
Beryllium	9-1	735	775	708	739	4.53	cps
Bismuth	209-1	4004458	4029203	3933697	3989119	1.24	cps
Bismuth	209-2	3566323	3642433	3548925	3585894	1.39	cps
Bromine	81-1	30117	29961	29750	29943	0.62	cps
Bromine	81-2	217	287	200	234	19.62	cps
Cadmium	108-1	93	103	130	109	17.41	cps
Cadmium	106-1	2054	2177	1760	1997	10.72	cps
Cadmium	111-1	2716	2768	2658	2714	2.03	cps
Calcium	43-1	7205	7649	7435	7430	2.99	cps
Calcium	44-1	123475	125936	124430	124614	1.00	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	5301	5444	5534	5427	2.17	cps
Cobalt	59-2	3761	3751	3861	3791	1.61	cps
Copper	63-2	8002	7909	8139	8017	1.44	cps
Dysprosium	156-1	3	3	0	2	86.60	cps
Dysprosium	156-2	3	0	17	7	132.33	cps
Erbium	164-1	93	40	43	59	50.74	cps
Erbium	164-2	40	23	23	29	33.32	cps
Gadolinium	160-1	23	27	27	26	7.55	cps
Gadolinium	160-2	297	267	250	271	8.72	cps
Holmium	165-1	6386619	6366603	6233963	6329062	1.31	cps
Holmium	165-2	4748422	4846672	4746382	4780492	1.20	cps
Indium	115-1	5281859	5301022	5237828	5273570	0.61	cps
Indium	115-2	2103296	2161157	2039555	2101336	2.89	cps
Iron	56-2	135431	131398	130450	132426	2.00	cps
Iron	57-2	4101	4081	4057	4079	0.53	cps
Iron	54-2	8723	8866	8789	8793	0.82	cps
Krypton	83-1	320	323	357	333	6.08	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CRI Instrumnet Name : P7
Client Sample ID : CRI Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:37:07 DataFile Name : 025LLCC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	4974	4958	4798	4910	1.99	cps
Lead	207-1	4301	3997	4141	4146	3.66	cps
Lead	208-1	19292	18832	19042	19055	1.21	cps
Lithium	6-1	622755	635215	619577	625849	1.32	cps
Magnesium	24-2	99023	100318	98657	99332	0.88	cps
Manganese	55-2	4051	3857	3767	3892	3.72	cps
Molybdenum	94-1	10881	10911	11301	11031	2.13	cps
Molybdenum	95-1	12502	12759	13263	12841	3.01	cps
Molybdenum	96-1	14194	14587	14661	14481	1.73	cps
Molybdenum	97-1	7722	8149	8242	8038	3.45	cps
Molybdenum	98-1	21069	20892	20464	20808	1.49	cps
Neodymium	150-1	10	13	0	8	89.21	cps
Neodymium	150-2	3	7	3	4	43.40	cps
Nickel	60-2	1187	1153	1110	1150	3.34	cps
Phosphorus	31-2	463	487	467	472	2.67	cps
Potassium	39-2	182888	183769	182317	182991	0.40	cps
Rhodium	103-1	4921513	5053258	4943198	4972656	1.42	cps
Rhodium	103-2	3157012	3126519	3082867	3122133	1.19	cps
Scandium	45-1	2934293	2954179	2892335	2926936	1.08	cps
Scandium	45-2	280357	279281	275873	278504	0.84	cps
Selenium	82-1	784	795	711	763	5.96	cps
Selenium	77-2	57	97	60	71	31.21	cps
Selenium	78-2	1023	900	887	937	8.04	cps
Silicon	28-1	846452	846551	846753	846585	0.02	cps
Silver	107-1	6958	7155	6532	6882	4.63	cps
Silver	109-1	6735	6558	6478	6590	1.99	cps
Sodium	23-2	173347	178311	175275	175644	1.42	cps
Strontium	86-1	2234	2324	2200	2252	2.83	cps
Strontium	88-1	15265	15338	15121	15241	0.72	cps
Sulfur	34-1	105179	105229	107109	105839	1.04	cps
Terbium	159-1	6468958	6591065	6541907	6533977	0.94	cps
Terbium	159-2	4879128	4892460	4714736	4828775	2.05	cps
Thallium	203-1	5238	5284	5121	5214	1.61	cps
Thallium	205-1	12322	12252	12379	12318	0.52	cps
Tin	118-1	22261	23012	22274	22516	1.91	cps
Titanium	47-1	3257	3334	3294	3295	1.16	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CRI Instrumnet Name : P7
Client Sample ID : CRI Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:37:07 DataFile Name : 025LLCC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	14495	14792	14425	14570	1.34	cps
Vanadium	51-2	9730	9596	9416	9581	1.64	cps
Yttrium	89-1	7723480	7655305	7672292	7683692	0.46	cps
Yttrium	89-2	2277846	2263565	2256099	2265837	0.49	cps
Zinc	66-2	2780	2757	3030	2856	5.31	cps
Zirconium	90-1	9070	9356	9193	9206	1.56	cps
Zirconium	91-1	2130	1957	1917	2001	5.67	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : PB167465BL Instrumnet Name : P7
Client Sample ID : PB167465BL Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:40:29 DataFile Name : 026CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	240	233	227	233	2.86	cps
Antimony	121-1	53	107	103	88	34.04	cps
Arsenic	75-2	17	7	10	11	45.82	cps
Barium	135-1	10	30	17	19	53.91	cps
Barium	137-1	43	27	23	31	34.44	cps
Beryllium	9-1	44	41	54	46	15.03	cps
Bismuth	209-1	3952448	4005790	3908202	3955480	1.24	cps
Bismuth	209-2	3630820	3552150	3518893	3567288	1.61	cps
Bromine	81-1	29349	29052	28287	28896	1.90	cps
Bromine	81-2	113	167	103	128	26.65	cps
Cadmium	108-1	7	10	7	8	24.71	cps
Cadmium	106-1	1807	1963	1903	1891	4.18	cps
Cadmium	111-1	1287	1381	1341	1336	3.53	cps
Calcium	43-1	417	517	450	461	11.04	cps
Calcium	44-1	9377	9880	9373	9543	3.06	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	773	710	743	742	4.27	cps
Cobalt	59-2	70	63	97	77	23.01	cps
Copper	63-2	2434	2277	2410	2374	3.56	cps
Dysprosium	156-1	10	3	10	8	49.52	cps
Dysprosium	156-2	3	7	0	3	100.05	cps
Erbium	164-1	50	37	57	48	21.31	cps
Erbium	164-2	27	27	27	27	0.00	cps
Gadolinium	160-1	33	20	37	30	29.40	cps
Gadolinium	160-2	243	270	237	250	7.06	cps
Holmium	165-1	6300874	6284003	6240254	6275044	0.50	cps
Holmium	165-2	4746477	4779990	4827628	4784699	0.85	cps
Indium	115-1	5308907	5344439	5211053	5288133	1.31	cps
Indium	115-2	2122982	2097190	2056971	2092381	1.59	cps
Iron	56-2	23261	22457	23158	22959	1.91	cps
Iron	57-2	1003	1243	1217	1155	11.39	cps
Iron	54-2	2814	2644	2794	2750	3.38	cps
Krypton	83-1	347	353	383	361	5.41	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : PB167465BL Instrumnet Name : P7
Client Sample ID : PB167465BL Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:40:29 DataFile Name : 026CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	743	833	717	764	8.00	cps
Lead	207-1	583	703	713	667	10.85	cps
Lead	208-1	2877	3144	3134	3051	4.95	cps
Lithium	6-1	623487	622615	618773	621625	0.40	cps
Magnesium	24-2	290	320	347	319	8.89	cps
Manganese	55-2	850	917	917	894	4.30	cps
Molybdenum	94-1	153	157	150	153	2.17	cps
Molybdenum	95-1	67	67	90	74	18.09	cps
Molybdenum	96-1	200	163	160	174	12.72	cps
Molybdenum	97-1	80	47	50	59	31.17	cps
Molybdenum	98-1	93	97	117	102	12.35	cps
Neodymium	150-1	0	10	10	7	86.60	cps
Neodymium	150-2	13	0	0	4	173.21	cps
Nickel	60-2	187	173	157	172	8.73	cps
Phosphorus	31-2	263	363	337	321	16.13	cps
Potassium	39-2	49293	49758	49912	49654	0.65	cps
Rhodium	103-1	5025063	5005799	5049205	5026689	0.43	cps
Rhodium	103-2	3129765	3187014	3145959	3154246	0.94	cps
Scandium	45-1	3000173	2889126	2913300	2934200	1.99	cps
Scandium	45-2	281318	278399	280751	280156	0.55	cps
Selenium	82-1	224	187	207	206	8.82	cps
Selenium	77-2	3	0	0	1	173.21	cps
Selenium	78-2	870	713	740	774	10.82	cps
Silicon	28-1	834204	829242	828612	830686	0.37	cps
Silver	107-1	77	87	103	89	15.15	cps
Silver	109-1	47	37	63	49	27.55	cps
Sodium	23-2	18354	18284	18324	18321	0.19	cps
Strontium	86-1	500	540	630	557	11.96	cps
Strontium	88-1	103	137	120	120	13.89	cps
Sulfur	34-1	104977	105715	107438	106043	1.19	cps
Terbium	159-1	6369459	6450970	6555313	6458581	1.44	cps
Terbium	159-2	4944547	4774972	4730527	4816682	2.34	cps
Thallium	203-1	430	457	377	421	9.67	cps
Thallium	205-1	1050	1117	1017	1061	4.80	cps
Tin	118-1	867	837	787	830	4.87	cps
Titanium	47-1	80	63	77	73	12.03	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : PB167465BL Instrumnet Name : P7
Client Sample ID : PB167465BL Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:40:29 DataFile Name : 026CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	33	17	17	22	43.28	cps
Vanadium	51-2	13	7	17	12	41.65	cps
Yttrium	89-1	7730294	7724719	7750460	7735158	0.18	cps
Yttrium	89-2	2228027	2286861	2277129	2264005	1.39	cps
Zinc	66-2	280	300	383	321	17.07	cps
Zirconium	90-1	390	317	387	364	11.36	cps
Zirconium	91-1	80	77	47	68	27.08	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : PB167465BS Instrumnet Name : P7
Client Sample ID : PB167465BS Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:43:55 DataFile Name : 027LCSS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1223583	1230170	1199213	1217655	1.34	cps
Antimony	121-1	2545813	2585925	2536578	2556105	1.03	cps
Arsenic	75-2	162203	160357	157799	160120	1.38	cps
Barium	135-1	3376768	3421688	3411776	3403411	0.69	cps
Barium	137-1	5936074	5863222	5947442	5915579	0.77	cps
Beryllium	9-1	342713	352515	356639	350623	2.04	cps
Bismuth	209-1	3994718	3888597	3985227	3956181	1.48	cps
Bismuth	209-2	3494751	3554773	3526115	3525213	0.85	cps
Bromine	81-1	28875	27696	27913	28162	2.23	cps
Bromine	81-2	167	210	190	189	11.48	cps
Cadmium	108-1	54592	53967	54920	54493	0.89	cps
Cadmium	106-1	77254	78049	78306	77870	0.70	cps
Cadmium	111-1	749145	752035	751018	750733	0.20	cps
Calcium	43-1	738129	737669	733117	736305	0.38	cps
Calcium	44-1	11650649	11573141	11498698	11574163	0.66	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1133556	1128426	1127082	1129688	0.30	cps
Cobalt	59-2	1805652	1775452	1789209	1790104	0.84	cps
Copper	63-2	13640012	13537507	13726052	13634524	0.69	cps
Dysprosium	156-1	70	83	47	67	27.83	cps
Dysprosium	156-2	173	203	157	178	13.30	cps
Erbium	164-1	107	90	77	91	16.50	cps
Erbium	164-2	87	70	77	78	10.79	cps
Gadolinium	160-1	53	57	77	62	20.29	cps
Gadolinium	160-2	273	350	360	328	14.47	cps
Holmium	165-1	6442322	6482163	6429702	6451396	0.42	cps
Holmium	165-2	4843413	4780695	4799358	4807822	0.67	cps
Indium	115-1	5316499	5234634	5256073	5269069	0.81	cps
Indium	115-2	2075044	2045048	2016452	2045515	1.43	cps
Iron	56-2	53415271	52533404	52271154	52739943	1.14	cps
Iron	57-2	1370899	1369422	1374770	1371697	0.20	cps
Iron	54-2	2904420	2912803	2966170	2927798	1.14	cps
Krypton	83-1	390	380	360	377	4.06	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : PB167465BS Instrumnet Name : P7
Client Sample ID : PB167465BS Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:43:55 DataFile Name : 027LCSS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	10225792	10125107	10332033	10227644	1.01	cps
Lead	207-1	9162018	9027841	9036929	9075596	0.83	cps
Lead	208-1	41256148	41095276	41110965	41154130	0.22	cps
Lithium	6-1	622220	630379	632615	628405	0.87	cps
Magnesium	24-2	10374445	10254751	10348601	10325932	0.61	cps
Manganese	55-2	9826502	9846668	9947811	9873660	0.66	cps
Molybdenum	94-1	9338422	9499686	9459497	9432535	0.89	cps
Molybdenum	95-1	13360931	13626203	13444258	13477131	1.01	cps
Molybdenum	96-1	14712865	15000879	14968942	14894229	1.06	cps
Molybdenum	97-1	8375158	8344287	8262441	8327296	0.70	cps
Molybdenum	98-1	21640095	21783464	21501341	21641633	0.65	cps
Neodymium	150-1	130	137	173	147	15.91	cps
Neodymium	150-2	40	47	80	56	38.57	cps
Nickel	60-2	465658	462064	461517	463080	0.49	cps
Phosphorus	31-2	72243	71144	71654	71680	0.77	cps
Potassium	39-2	6847649	6734355	6743331	6775111	0.93	cps
Rhodium	103-1	5006992	4997570	4935900	4980154	0.78	cps
Rhodium	103-2	3093394	3117694	3083850	3098312	0.56	cps
Scandium	45-1	2922592	2945224	2965068	2944295	0.72	cps
Scandium	45-2	277249	275778	274524	275850	0.49	cps
Selenium	82-1	56611	57679	57845	57378	1.17	cps
Selenium	77-2	6915	6632	6495	6680	3.21	cps
Selenium	78-2	23018	22621	23122	22920	1.15	cps
Silicon	28-1	10739286	10674519	10722847	10712217	0.31	cps
Silver	107-1	3536181	3593078	3645865	3591708	1.53	cps
Silver	109-1	3518185	3491371	3533154	3514237	0.60	cps
Sodium	23-2	16812584	16651558	16745234	16736459	0.48	cps
Strontium	86-1	863797	863835	865984	864539	0.14	cps
Strontium	88-1	7624053	7595569	7709303	7642975	0.77	cps
Sulfur	34-1	315263	314534	308454	312751	1.20	cps
Terbium	159-1	6557717	6667637	6609541	6611632	0.83	cps
Terbium	159-2	4927836	4820525	4816713	4855025	1.30	cps
Thallium	203-1	2577306	2621303	2608830	2602480	0.87	cps
Thallium	205-1	6215358	6091660	6166637	6157885	1.01	cps
Tin	118-1	2206684	2229361	2250052	2228699	0.97	cps
Titanium	47-1	3385174	3428642	3384253	3399357	0.75	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : PB167465BS Instrumnet Name : P7
Client Sample ID : PB167465BS Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:43:55 DataFile Name : 027LCSS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	8042043	8054050	7978701	8024931	0.50	cps
Vanadium	51-2	986749	986389	987405	986848	0.05	cps
Yttrium	89-1	7824683	7735788	7830861	7797111	0.68	cps
Yttrium	89-2	2272352	2239406	2217903	2243220	1.22	cps
Zinc	66-2	2661201	2626053	2639764	2642339	0.67	cps
Zirconium	90-1	4601834	4616989	4594618	4604481	0.25	cps
Zirconium	91-1	1031549	1040115	1035931	1035865	0.41	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-01 Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:46:45 DataFile Name : 028AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	200472	200101	200394	200322	0.10	cps
Antimony	121-1	9293	9376	9413	9361	0.66	cps
Arsenic	75-2	260	307	357	308	15.71	cps
Barium	135-1	176344	175116	173770	175077	0.74	cps
Barium	137-1	303886	303342	301617	302948	0.39	cps
Beryllium	9-1	61	41	31	45	34.40	cps
Bismuth	209-1	4287022	4374079	4405026	4355376	1.40	cps
Bismuth	209-2	3911615	3893405	3797233	3867418	1.59	cps
Bromine	81-1	52199	57217	60360	56592	7.27	cps
Bromine	81-2	7649	7926	8246	7940	3.76	cps
Cadmium	108-1	30	43	27	33	26.45	cps
Cadmium	106-1	2134	2007	1957	2032	4.48	cps
Cadmium	111-1	1549	1451	1421	1474	4.54	cps
Calcium	43-1	1411247	1443141	1408671	1421020	1.35	cps
Calcium	44-1	23781524	23867408	23196017	23614983	1.55	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2427	2500	2437	2455	1.62	cps
Cobalt	59-2	820	760	813	798	4.12	cps
Copper	63-2	2640	2560	2484	2561	3.06	cps
Dysprosium	156-1	27	3	23	18	71.00	cps
Dysprosium	156-2	20	3	0	8	137.80	cps
Erbium	164-1	50	67	47	54	19.68	cps
Erbium	164-2	30	40	37	36	14.32	cps
Gadolinium	160-1	33	23	40	32	26.04	cps
Gadolinium	160-2	287	283	277	282	1.80	cps
Holmium	165-1	7060935	7091856	7091245	7081345	0.25	cps
Holmium	165-2	5313868	5251666	5227456	5264330	0.85	cps
Indium	115-1	5890677	5834791	5842597	5856022	0.52	cps
Indium	115-2	2246084	2278531	2303851	2276155	1.27	cps
Iron	56-2	166608	165234	165383	165742	0.45	cps
Iron	57-2	32442	33427	33207	33025	1.57	cps
Iron	54-2	10380	10604	10414	10466	1.15	cps
Krypton	83-1	277	297	257	277	7.23	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-01 Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:46:45 DataFile Name : 028AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	1343	1140	1067	1183	12.11	cps
Lead	207-1	923	947	973	948	2.64	cps
Lead	208-1	4780	4477	4380	4546	4.59	cps
Lithium	6-1	699019	702273	691744	697679	0.77	cps
Magnesium	24-2	72047	72523	71311	71961	0.85	cps
Manganese	55-2	11491	11171	11488	11383	1.62	cps
Molybdenum	94-1	129803	132150	130143	130698	0.97	cps
Molybdenum	95-1	229424	229489	227407	228773	0.52	cps
Molybdenum	96-1	244930	244156	243052	244046	0.39	cps
Molybdenum	97-1	144140	143733	144325	144066	0.21	cps
Molybdenum	98-1	372228	366806	366559	368531	0.87	cps
Neodymium	150-1	13	7	20	13	49.99	cps
Neodymium	150-2	7	13	10	10	33.30	cps
Nickel	60-2	10397	10821	10661	10626	2.01	cps
Phosphorus	31-2	617	490	573	560	11.50	cps
Potassium	39-2	6902339	6940967	6847932	6897079	0.68	cps
Rhodium	103-1	5485163	5427704	5449512	5454126	0.53	cps
Rhodium	103-2	3476015	3488350	3424609	3462991	0.98	cps
Scandium	45-1	3309868	3293178	3184107	3262384	2.09	cps
Scandium	45-2	310416	310962	309806	310394	0.19	cps
Selenium	82-1	367	329	430	375	13.54	cps
Selenium	77-2	23	3	3	10	115.51	cps
Selenium	78-2	817	773	750	780	4.34	cps
Silicon	28-1	11324307	11385488	11138327	11282707	1.14	cps
Silver	107-1	170	140	123	144	16.37	cps
Silver	109-1	107	110	130	116	10.92	cps
Sodium	23-2	7201971	7222520	7215963	7213485	0.15	cps
Strontium	86-1	1040505	1037870	1029877	1036084	0.53	cps
Strontium	88-1	9371102	9144841	9062744	9192896	1.74	cps
Sulfur	34-1	190173	187660	189598	189144	0.70	cps
Terbium	159-1	7358518	7356397	7209823	7308246	1.17	cps
Terbium	159-2	5375874	5327279	5157441	5286865	2.17	cps
Thallium	203-1	510	450	380	447	14.57	cps
Thallium	205-1	1203	1203	1120	1176	4.09	cps
Tin	118-1	2190	2167	2184	2180	0.55	cps
Titanium	47-1	340	227	307	291	20.01	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-01 Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:46:45 DataFile Name : 028AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	133	127	150	137	8.79	cps
Vanadium	51-2	8279	8066	7915	8087	2.26	cps
Yttrium	89-1	8525343	8565071	8423879	8504764	0.86	cps
Yttrium	89-2	2514176	2478996	2537586	2510253	1.17	cps
Zinc	66-2	800	763	670	744	9.00	cps
Zirconium	90-1	603	617	563	594	4.67	cps
Zirconium	91-1	177	133	133	148	16.93	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-01DUP Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225DUP Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:49:57 DataFile Name : 029AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	207160	205403	209733	207432	1.05	cps
Antimony	121-1	9316	9457	9433	9402	0.80	cps
Arsenic	75-2	337	350	353	347	2.54	cps
Barium	135-1	178197	179913	176334	178148	1.00	cps
Barium	137-1	306386	311617	306027	308010	1.02	cps
Beryllium	9-1	34	38	58	43	29.13	cps
Bismuth	209-1	4349333	4288208	4329104	4322215	0.72	cps
Bismuth	209-2	3865350	3857421	3799855	3840875	0.93	cps
Bromine	81-1	58074	64313	65990	62792	6.64	cps
Bromine	81-2	8362	8392	8629	8461	1.73	cps
Cadmium	108-1	47	43	33	41	16.89	cps
Cadmium	106-1	2204	2134	2147	2161	1.72	cps
Cadmium	111-1	1580	1523	1523	1542	2.13	cps
Calcium	43-1	1421855	1434320	1433634	1429937	0.49	cps
Calcium	44-1	23800796	23478026	23444092	23574305	0.84	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1970	2097	2207	2091	5.66	cps
Cobalt	59-2	587	587	590	588	0.33	cps
Copper	63-2	2414	2490	2564	2489	3.01	cps
Dysprosium	156-1	3	3	13	7	86.65	cps
Dysprosium	156-2	3	10	20	11	75.52	cps
Erbium	164-1	60	73	43	59	25.53	cps
Erbium	164-2	37	20	30	29	29.04	cps
Gadolinium	160-1	20	30	30	27	21.65	cps
Gadolinium	160-2	320	280	260	287	10.66	cps
Holmium	165-1	7275928	7242682	7028109	7182239	1.87	cps
Holmium	165-2	5309370	5356913	5152843	5273042	2.02	cps
Indium	115-1	6001086	6011084	5878242	5963471	1.24	cps
Indium	115-2	2362944	2309666	2343006	2338539	1.15	cps
Iron	56-2	169163	169912	168608	169228	0.39	cps
Iron	57-2	33694	34182	33407	33761	1.16	cps
Iron	54-2	10350	10460	10327	10379	0.69	cps
Krypton	83-1	313	303	360	326	9.29	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-01DUP Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225DUP Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:49:57 DataFile Name : 029AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	900	1000	1053	984	7.91	cps
Lead	207-1	873	853	867	864	1.18	cps
Lead	208-1	3877	3984	3977	3946	1.51	cps
Lithium	6-1	653354	657362	646613	652443	0.83	cps
Magnesium	24-2	75963	74657	74683	75101	0.99	cps
Manganese	55-2	14624	14324	14277	14408	1.31	cps
Molybdenum	94-1	132288	132422	132957	132556	0.27	cps
Molybdenum	95-1	233128	232760	232457	232782	0.14	cps
Molybdenum	96-1	248455	248090	248098	248214	0.08	cps
Molybdenum	97-1	144928	144409	146617	145318	0.79	cps
Molybdenum	98-1	371996	377707	373487	374397	0.79	cps
Neodymium	150-1	40	7	10	19	97.18	cps
Neodymium	150-2	10	7	3	7	50.03	cps
Nickel	60-2	9810	10277	9910	9999	2.46	cps
Phosphorus	31-2	650	677	687	671	2.82	cps
Potassium	39-2	7155313	7106346	7275153	7178937	1.21	cps
Rhodium	103-1	5689458	5626857	5563449	5626588	1.12	cps
Rhodium	103-2	3484788	3504298	3515983	3501690	0.45	cps
Scandium	45-1	3344525	3280285	3273951	3299587	1.18	cps
Scandium	45-2	321934	322173	323029	322378	0.18	cps
Selenium	82-1	356	384	383	374	4.31	cps
Selenium	77-2	17	13	7	12	41.65	cps
Selenium	78-2	773	810	820	801	3.07	cps
Silicon	28-1	11330800	11511369	11399033	11413734	0.80	cps
Silver	107-1	77	63	100	80	23.20	cps
Silver	109-1	47	60	60	56	13.85	cps
Sodium	23-2	7384107	7438942	7466085	7429712	0.56	cps
Strontium	86-1	1056244	1061606	1065418	1061090	0.43	cps
Strontium	88-1	9466367	9510150	9448300	9474939	0.34	cps
Sulfur	34-1	198808	202134	205764	202235	1.72	cps
Terbium	159-1	7378723	7350388	7338202	7355771	0.28	cps
Terbium	159-2	5176819	5289556	5330433	5265603	1.51	cps
Thallium	203-1	333	377	363	358	6.20	cps
Thallium	205-1	763	773	740	759	2.25	cps
Tin	118-1	2124	2027	2067	2072	2.34	cps
Titanium	47-1	273	297	297	289	4.66	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-01DUP Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225DUP Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:49:57 DataFile Name : 029AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	103	147	137	129	17.61	cps
Vanadium	51-2	8356	8292	8562	8404	1.68	cps
Yttrium	89-1	8687042	8797945	8681597	8722195	0.75	cps
Yttrium	89-2	2566522	2562740	2572765	2567342	0.20	cps
Zinc	66-2	783	677	600	687	13.41	cps
Zirconium	90-1	560	547	517	541	4.10	cps
Zirconium	91-1	113	77	97	96	19.21	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-01LX5 Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225L Dilution Factor : 5
Date & Time Acquired : 2025-04-04 15:53:13 DataFile Name : 030AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	39551	39330	39999	39627	0.86	cps
Antimony	121-1	1820	1810	1860	1830	1.45	cps
Arsenic	75-2	73	63	77	71	9.76	cps
Barium	135-1	33553	34228	32236	33339	3.04	cps
Barium	137-1	56980	58021	57198	57400	0.96	cps
Beryllium	9-1	54	21	41	39	43.47	cps
Bismuth	209-1	4071223	4023730	3987392	4027448	1.04	cps
Bismuth	209-2	3586012	3664660	3584326	3611666	1.27	cps
Bromine	81-1	41381	41241	40064	40896	1.77	cps
Bromine	81-2	2850	2800	2687	2779	3.01	cps
Cadmium	108-1	7	20	17	14	48.02	cps
Cadmium	106-1	2097	1847	1943	1962	6.43	cps
Cadmium	111-1	1486	1309	1362	1386	6.58	cps
Calcium	43-1	280762	283657	279651	281357	0.74	cps
Calcium	44-1	4363057	4445955	4422290	4410434	0.97	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1263	1353	1227	1281	5.09	cps
Cobalt	59-2	130	163	180	158	16.14	cps
Copper	63-2	2477	2394	2394	2421	1.99	cps
Dysprosium	156-1	7	3	13	8	65.47	cps
Dysprosium	156-2	3	0	0	1	173.21	cps
Erbium	164-1	60	40	27	42	39.73	cps
Erbium	164-2	30	60	50	47	32.73	cps
Gadolinium	160-1	47	33	33	38	20.39	cps
Gadolinium	160-2	257	247	260	254	2.73	cps
Holmium	165-1	6589621	6466608	6500521	6518917	0.97	cps
Holmium	165-2	4837141	4936440	4973937	4915839	1.44	cps
Indium	115-1	5469700	5485808	5508024	5487844	0.35	cps
Indium	115-2	2177496	2127085	2170658	2158413	1.27	cps
Iron	56-2	54314	53177	54080	53857	1.12	cps
Iron	57-2	7499	7662	7805	7655	2.01	cps
Iron	54-2	4181	4104	4417	4234	3.86	cps
Krypton	83-1	387	440	423	417	6.55	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-01LX5 Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225L Dilution Factor : 5
Date & Time Acquired : 2025-04-04 15:53:13 DataFile Name : 030AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	870	777	710	786	10.23	cps
Lead	207-1	683	627	677	662	4.68	cps
Lead	208-1	3200	3047	2997	3081	3.44	cps
Lithium	6-1	589143	598734	591481	593119	0.84	cps
Magnesium	24-2	14230	13960	14377	14189	1.49	cps
Manganese	55-2	3917	3941	4144	4001	3.12	cps
Molybdenum	94-1	24644	25686	25462	25264	2.17	cps
Molybdenum	95-1	44013	43595	43926	43845	0.50	cps
Molybdenum	96-1	46413	47260	47453	47042	1.18	cps
Molybdenum	97-1	27199	26998	27486	27228	0.90	cps
Molybdenum	98-1	70034	69692	69046	69590	0.72	cps
Neodymium	150-1	10	7	10	9	21.63	cps
Neodymium	150-2	0	7	0	2	173.21	cps
Nickel	60-2	2297	2457	2260	2338	4.47	cps
Phosphorus	31-2	360	303	347	337	8.80	cps
Potassium	39-2	1379281	1372045	1376720	1376015	0.27	cps
Rhodium	103-1	5271992	5191723	5300695	5254803	1.07	cps
Rhodium	103-2	3271879	3246843	3251720	3256814	0.41	cps
Scandium	45-1	3015350	3080852	2981521	3025908	1.67	cps
Scandium	45-2	297493	293573	296429	295832	0.69	cps
Selenium	82-1	243	123	208	191	32.25	cps
Selenium	77-2	0	7	0	2	173.21	cps
Selenium	78-2	813	847	800	820	2.93	cps
Silicon	28-1	3102356	3105129	3068813	3092100	0.65	cps
Silver	107-1	47	43	50	47	7.15	cps
Silver	109-1	33	37	37	36	5.42	cps
Sodium	23-2	1394321	1391382	1397876	1394526	0.23	cps
Strontium	86-1	198167	201592	198861	199540	0.91	cps
Strontium	88-1	1751963	1791692	1717354	1753670	2.12	cps
Sulfur	34-1	127785	126589	126787	127054	0.50	cps
Terbium	159-1	6750669	6770536	6777051	6766085	0.20	cps
Terbium	159-2	4923893	4875016	4878471	4892460	0.56	cps
Thallium	203-1	243	207	237	229	8.53	cps
Thallium	205-1	530	527	597	551	7.17	cps
Tin	118-1	1143	1070	1093	1102	3.40	cps
Titanium	47-1	113	87	103	101	13.32	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-01LX5 Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225L Dilution Factor : 5
Date & Time Acquired : 2025-04-04 15:53:13 DataFile Name : 030AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	43	47	30	40	22.05	cps
Vanadium	51-2	1567	1603	1707	1626	4.47	cps
Yttrium	89-1	8118070	8174996	8006271	8099779	1.06	cps
Yttrium	89-2	2439855	2407496	2373229	2406860	1.38	cps
Zinc	66-2	560	570	590	573	2.66	cps
Zirconium	90-1	463	460	540	488	9.28	cps
Zirconium	91-1	93	117	80	97	19.20	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-02 Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225MS Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:56:27 DataFile Name : 031AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1398705	1375854	1363695	1379418	1.29	cps
Antimony	121-1	2696405	2681067	2679719	2685731	0.35	cps
Arsenic	75-2	310	333	377	340	9.95	cps
Barium	135-1	3381614	3412365	3389684	3394554	0.47	cps
Barium	137-1	5785413	5835750	5763119	5794761	0.64	cps
Beryllium	9-1	355181	364176	354806	358054	1.48	cps
Bismuth	209-1	4398970	4413018	4340988	4384325	0.87	cps
Bismuth	209-2	3753402	3828034	3824309	3801915	1.11	cps
Bromine	81-1	57077	62130	63298	60835	5.44	cps
Bromine	81-2	8172	8442	8529	8381	2.22	cps
Cadmium	108-1	53900	55021	54432	54451	1.03	cps
Cadmium	106-1	80237	80093	80716	80349	0.41	cps
Cadmium	111-1	764818	769440	758266	764175	0.73	cps
Calcium	43-1	2086851	2049204	2030806	2055620	1.39	cps
Calcium	44-1	34075887	34145479	33001029	33740798	1.90	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1163355	1151741	1149772	1154956	0.64	cps
Cobalt	59-2	1897283	1885015	1849104	1877134	1.33	cps
Copper	63-2	12864871	12758689	12692478	12772013	0.68	cps
Dysprosium	156-1	117	80	87	94	20.68	cps
Dysprosium	156-2	247	160	173	193	24.14	cps
Erbium	164-1	110	100	80	97	15.80	cps
Erbium	164-2	83	40	97	73	40.40	cps
Gadolinium	160-1	90	100	127	106	17.96	cps
Gadolinium	160-2	393	337	370	367	7.77	cps
Holmium	165-1	7179698	7236772	7173655	7196708	0.48	cps
Holmium	165-2	5256317	5266173	5222881	5248457	0.43	cps
Indium	115-1	6019979	5883313	5889900	5931064	1.30	cps
Indium	115-2	2311951	2266117	2267067	2281712	1.15	cps
Iron	56-2	50672028	50369489	49163681	50068399	1.59	cps
Iron	57-2	1321466	1317203	1313150	1317273	0.32	cps
Iron	54-2	2748228	2781971	2754511	2761570	0.65	cps
Krypton	83-1	310	377	380	356	11.11	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-02 Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225MS Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:56:27 DataFile Name : 031AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	10518447	10465368	10671564	10551793	1.01	cps
Lead	207-1	9251342	9330992	9411900	9331412	0.86	cps
Lead	208-1	42193169	42201921	42195430	42196840	0.01	cps
Lithium	6-1	658582	674728	671444	668252	1.28	cps
Magnesium	24-2	10843095	10726759	10815599	10795151	0.56	cps
Manganese	55-2	9462854	9546322	9335819	9448332	1.12	cps
Molybdenum	94-1	4877823	4885414	4748488	4837242	1.59	cps
Molybdenum	95-1	5278924	5402439	5319784	5333716	1.18	cps
Molybdenum	96-1	6032181	6044605	5992563	6023116	0.45	cps
Molybdenum	97-1	3357977	3302800	3325957	3328911	0.83	cps
Molybdenum	98-1	8675361	8691219	8518383	8628321	1.11	cps
Neodymium	150-1	180	180	160	173	6.66	cps
Neodymium	150-2	47	53	23	41	38.32	cps
Nickel	60-2	481548	484874	483894	483439	0.35	cps
Phosphorus	31-2	630	617	580	609	4.25	cps
Potassium	39-2	12412503	12423678	12339551	12391911	0.37	cps
Rhodium	103-1	5648034	5582380	5507358	5579257	1.26	cps
Rhodium	103-2	3382500	3331181	3430609	3381430	1.47	cps
Scandium	45-1	3331969	3349654	3284755	3322126	1.01	cps
Scandium	45-2	314479	317030	315092	315534	0.42	cps
Selenium	82-1	61174	61908	61339	61474	0.63	cps
Selenium	77-2	7425	6878	7172	7158	3.82	cps
Selenium	78-2	24848	24831	24664	24781	0.41	cps
Silicon	28-1	10639149	10520708	10356764	10505540	1.35	cps
Silver	107-1	637824	634106	631187	634372	0.52	cps
Silver	109-1	598843	601485	593051	597793	0.72	cps
Sodium	23-2	23395458	23883152	23519438	23599349	1.07	cps
Strontium	86-1	2005611	2021898	2028268	2018593	0.58	cps
Strontium	88-1	18002913	17813037	17686385	17834112	0.89	cps
Sulfur	34-1	210803	211390	211191	211128	0.14	cps
Terbium	159-1	7538196	7349318	7396091	7427868	1.32	cps
Terbium	159-2	5281670	5402443	5276337	5320150	1.34	cps
Thallium	203-1	2589577	2677019	2651997	2639531	1.71	cps
Thallium	205-1	6178582	6242033	6273990	6231535	0.78	cps
Tin	118-1	2113212	2117357	2134996	2121855	0.55	cps
Titanium	47-1	1480	1433	1527	1480	3.15	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-02 Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225MS Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:56:27 DataFile Name : 031AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	8251416	8257378	8186923	8231906	0.47	cps
Vanadium	51-2	1057967	1058428	1059412	1058602	0.07	cps
Yttrium	89-1	8845905	8841161	8796200	8827756	0.31	cps
Yttrium	89-2	2499097	2580721	2528587	2536135	1.63	cps
Zinc	66-2	2500963	2498829	2413773	2471188	2.01	cps
Zirconium	90-1	4819420	4806033	4779853	4801768	0.42	cps
Zirconium	91-1	1078638	1079273	1075133	1077681	0.21	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-03 Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225MSD Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:59:19 DataFile Name : 032AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1401764	1427541	1400340	1409882	1.09	cps
Antimony	121-1	2746171	2753002	2755662	2751612	0.18	cps
Arsenic	75-2	293	393	427	371	18.70	cps
Barium	135-1	3431453	3394382	3353626	3393154	1.15	cps
Barium	137-1	5889680	5890067	5826353	5868700	0.62	cps
Beryllium	9-1	360936	359736	362137	360937	0.33	cps
Bismuth	209-1	4345899	4385172	4385546	4372206	0.52	cps
Bismuth	209-2	3874612	3832280	3735275	3814056	1.87	cps
Bromine	81-1	57161	61943	64119	61074	5.83	cps
Bromine	81-2	8042	8439	8673	8385	3.80	cps
Cadmium	108-1	54174	56309	55372	55285	1.94	cps
Cadmium	106-1	82161	81309	80599	81356	0.96	cps
Cadmium	111-1	777532	776399	779571	777834	0.21	cps
Calcium	43-1	2000125	2081583	2027942	2036550	2.03	cps
Calcium	44-1	33855235	33417118	33703782	33658712	0.66	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1183972	1173433	1171563	1176323	0.57	cps
Cobalt	59-2	1895797	1866483	1884413	1882231	0.79	cps
Copper	63-2	13114173	13095094	12961800	13057022	0.64	cps
Dysprosium	156-1	83	77	127	96	28.41	cps
Dysprosium	156-2	220	180	173	191	13.21	cps
Erbium	164-1	87	117	87	97	17.92	cps
Erbium	164-2	73	80	80	78	4.95	cps
Gadolinium	160-1	103	93	87	94	8.88	cps
Gadolinium	160-2	403	327	347	359	11.08	cps
Holmium	165-1	7323738	7019035	7151351	7164708	2.13	cps
Holmium	165-2	5254277	5197431	5318958	5256889	1.16	cps
Indium	115-1	5751179	5873641	5782801	5802540	1.10	cps
Indium	115-2	2291073	2225212	2305252	2273846	1.88	cps
Iron	56-2	50853328	51498898	50814794	51055673	0.75	cps
Iron	57-2	1346363	1338998	1339152	1341504	0.31	cps
Iron	54-2	2812564	2773665	2774684	2786971	0.80	cps
Krypton	83-1	290	347	343	327	9.73	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-03 Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225MSD Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:59:19 DataFile Name : 032AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	10788124	10908799	10670164	10789029	1.11	cps
Lead	207-1	9536947	9669843	9561944	9589578	0.74	cps
Lead	208-1	43236084	43471504	43212681	43306756	0.33	cps
Lithium	6-1	669702	668477	667639	668606	0.16	cps
Magnesium	24-2	10968605	10744444	10753787	10822279	1.17	cps
Manganese	55-2	9713025	9601869	9551228	9622040	0.86	cps
Molybdenum	94-1	4894768	4851085	4902342	4882731	0.57	cps
Molybdenum	95-1	5372216	5258469	5339436	5323374	1.10	cps
Molybdenum	96-1	5999751	6011059	6018805	6009872	0.16	cps
Molybdenum	97-1	3322773	3354104	3327008	3334628	0.51	cps
Molybdenum	98-1	8758122	8674112	8667259	8699831	0.58	cps
Neodymium	150-1	163	150	150	154	4.99	cps
Neodymium	150-2	33	67	50	50	33.34	cps
Nickel	60-2	494427	492129	491155	492570	0.34	cps
Phosphorus	31-2	560	537	570	556	3.08	cps
Potassium	39-2	12738455	12646567	12860913	12748645	0.84	cps
Rhodium	103-1	5627787	5481637	5525412	5544945	1.35	cps
Rhodium	103-2	3396028	3420503	3466787	3427772	1.05	cps
Scandium	45-1	3362771	3319398	3298783	3326984	0.98	cps
Scandium	45-2	315574	315728	315160	315487	0.09	cps
Selenium	82-1	62280	62112	62087	62160	0.17	cps
Selenium	77-2	7512	6925	7385	7274	4.25	cps
Selenium	78-2	24290	24621	25101	24671	1.65	cps
Silicon	28-1	10300370	10643069	10768377	10570605	2.29	cps
Silver	107-1	643783	639919	643262	642322	0.33	cps
Silver	109-1	602149	609023	603905	605026	0.59	cps
Sodium	23-2	23808572	23417046	23368305	23531308	1.03	cps
Strontium	86-1	2005077	2018408	2026373	2016619	0.53	cps
Strontium	88-1	18133993	18069493	18398065	18200517	0.96	cps
Sulfur	34-1	204362	205087	203654	204368	0.35	cps
Terbium	159-1	7364358	7393650	7388130	7382046	0.21	cps
Terbium	159-2	5334301	5174678	5174246	5227742	1.77	cps
Thallium	203-1	2676672	2707115	2621660	2668482	1.62	cps
Thallium	205-1	6233379	6409233	6209134	6283915	1.74	cps
Tin	118-1	2179713	2170601	2164312	2171542	0.36	cps
Titanium	47-1	1427	1517	1290	1411	8.09	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-03 Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225MSD Dilution Factor : 1
Date & Time Acquired : 2025-04-04 15:59:19 DataFile Name : 032AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	8288155	8291198	8421604	8333652	0.91	cps
Vanadium	51-2	1086911	1073037	1077879	1079276	0.65	cps
Yttrium	89-1	8816529	8707567	8754353	8759483	0.62	cps
Yttrium	89-2	2506693	2548524	2557996	2537738	1.08	cps
Zinc	66-2	2566510	2532274	2525151	2541312	0.87	cps
Zirconium	90-1	4842048	4861927	4861494	4855156	0.23	cps
Zirconium	91-1	1087244	1091528	1086248	1088340	0.26	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-01A Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225A Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:02:08 DataFile Name : 033AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1392448	1437435	1412928	1414270	1.59	cps
Antimony	121-1	2734495	2760325	2766209	2753676	0.61	cps
Arsenic	75-2	383	367	447	399	10.58	cps
Barium	135-1	3451150	3413287	3424397	3429611	0.57	cps
Barium	137-1	5979004	5883692	5944642	5935779	0.81	cps
Beryllium	9-1	358452	357744	356539	357578	0.27	cps
Bismuth	209-1	4421280	4415953	4433227	4423486	0.20	cps
Bismuth	209-2	3881147	3890221	3796691	3856020	1.34	cps
Bromine	81-1	58760	60514	64453	61242	4.76	cps
Bromine	81-2	8256	8229	8543	8342	2.08	cps
Cadmium	108-1	53980	54642	54824	54482	0.81	cps
Cadmium	106-1	81266	82191	82238	81898	0.67	cps
Cadmium	111-1	774314	780117	779910	778114	0.42	cps
Calcium	43-1	1978841	1973262	2025295	1992466	1.43	cps
Calcium	44-1	33178822	33362948	32621441	33054404	1.17	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1176006	1169792	1168128	1171309	0.35	cps
Cobalt	59-2	1920669	1886091	1873499	1893420	1.29	cps
Copper	63-2	13207044	13127189	12733406	13022546	1.95	cps
Dysprosium	156-1	80	83	150	104	37.81	cps
Dysprosium	156-2	213	163	193	190	13.24	cps
Erbium	164-1	113	127	113	118	6.53	cps
Erbium	164-2	63	80	67	70	12.60	cps
Gadolinium	160-1	73	123	90	96	26.65	cps
Gadolinium	160-2	373	347	327	349	6.71	cps
Holmium	165-1	7249163	7191212	7337463	7259279	1.01	cps
Holmium	165-2	5319988	5407944	5347114	5358349	0.84	cps
Indium	115-1	5848966	5929218	5828316	5868833	0.91	cps
Indium	115-2	2281748	2261699	2257093	2266847	0.58	cps
Iron	56-2	50785773	50336998	49827033	50316601	0.95	cps
Iron	57-2	1341904	1338387	1318867	1333053	0.93	cps
Iron	54-2	2822148	2795936	2807087	2808391	0.47	cps
Krypton	83-1	363	307	357	342	9.05	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-01A Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225A Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:02:08 DataFile Name : 033AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	10797023	10950598	10888809	10878810	0.71	cps
Lead	207-1	9643818	9761351	9690537	9698569	0.61	cps
Lead	208-1	43330860	43799432	44075837	43735376	0.86	cps
Lithium	6-1	655191	649387	646168	650249	0.70	cps
Magnesium	24-2	10900574	10826386	10809522	10845494	0.45	cps
Manganese	55-2	9637218	9616061	9524437	9592572	0.62	cps
Molybdenum	94-1	4915809	4900824	4893543	4903392	0.23	cps
Molybdenum	95-1	5357350	5355531	5383574	5365485	0.29	cps
Molybdenum	96-1	6016967	6066975	6003690	6029211	0.55	cps
Molybdenum	97-1	3376736	3340712	3332588	3350012	0.70	cps
Molybdenum	98-1	8679814	8643150	8632501	8651822	0.29	cps
Neodymium	150-1	123	143	173	147	17.16	cps
Neodymium	150-2	27	30	40	32	21.53	cps
Nickel	60-2	492371	489960	484739	489023	0.80	cps
Phosphorus	31-2	543	613	537	564	7.52	cps
Potassium	39-2	12631464	12591270	12611084	12611273	0.16	cps
Rhodium	103-1	5637208	5596434	5530307	5587983	0.97	cps
Rhodium	103-2	3423679	3508228	3351060	3427656	2.29	cps
Scandium	45-1	3316119	3273208	3228265	3272531	1.34	cps
Scandium	45-2	316443	315389	314332	315388	0.33	cps
Selenium	82-1	61676	61708	62227	61870	0.50	cps
Selenium	77-2	7048	7329	7252	7210	2.01	cps
Selenium	78-2	24938	25352	25075	25121	0.84	cps
Silicon	28-1	10074979	10137866	10292557	10168467	1.10	cps
Silver	107-1	642287	645857	643930	644025	0.28	cps
Silver	109-1	600815	605403	606040	604086	0.47	cps
Sodium	23-2	23565130	23619220	23676141	23620164	0.24	cps
Strontium	86-1	2033310	2015188	2059215	2035905	1.09	cps
Strontium	88-1	17990466	17752026	17617893	17786795	1.06	cps
Sulfur	34-1	199545	198561	199480	199195	0.28	cps
Terbium	159-1	7467049	7557555	7518386	7514330	0.60	cps
Terbium	159-2	5262254	5248754	5300522	5270510	0.51	cps
Thallium	203-1	2685167	2733126	2742098	2720130	1.13	cps
Thallium	205-1	6353514	6377717	6419836	6383689	0.53	cps
Tin	118-1	2132959	2160950	2173263	2155724	0.96	cps
Titanium	47-1	1260	1410	1443	1371	7.12	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-01A Instrumnet Name : P7
Client Sample ID : MW-18B-56-040225A Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:02:08 DataFile Name : 033AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	8305712	8368952	8403594	8359419	0.59	cps
Vanadium	51-2	1079952	1066066	1071442	1072487	0.65	cps
Yttrium	89-1	8728678	8717902	8619519	8688700	0.69	cps
Yttrium	89-2	2568788	2546552	2462776	2526038	2.21	cps
Zinc	66-2	2541495	2547327	2576815	2555213	0.74	cps
Zirconium	90-1	4860015	4890357	4785317	4845230	1.12	cps
Zirconium	91-1	1084195	1080081	1082946	1082407	0.19	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCV02 Instrumnet Name : P7
Client Sample ID : CCV02 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:10:17 DataFile Name : 035CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	6655988	6599038	6512781	6589269	1.09	cps
Antimony	121-1	2592592	2614105	2610225	2605641	0.44	cps
Arsenic	75-2	168307	165323	167526	167052	0.93	cps
Barium	135-1	3458796	3505172	3469593	3477854	0.70	cps
Barium	137-1	5786297	6002533	5844465	5877765	1.90	cps
Beryllium	9-1	338928	340017	337304	338750	0.40	cps
Bismuth	209-1	3970263	3995925	3961127	3975772	0.45	cps
Bismuth	209-2	3524533	3477206	3503554	3501765	0.68	cps
Bromine	81-1	32646	33772	34641	33687	2.97	cps
Bromine	81-2	603	483	517	534	11.59	cps
Cadmium	108-1	52722	54676	53113	53504	1.93	cps
Cadmium	106-1	76098	79399	78521	78006	2.19	cps
Cadmium	111-1	719301	747342	733233	733292	1.91	cps
Calcium	43-1	3530897	3527641	3593776	3550771	1.05	cps
Calcium	44-1	58146064	58508401	58163701	58272722	0.35	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1223778	1220110	1214116	1219335	0.40	cps
Cobalt	59-2	1899279	1901474	1866553	1889102	1.04	cps
Copper	63-2	14111592	13923361	13985792	14006915	0.68	cps
Dysprosium	156-1	190	157	160	169	10.87	cps
Dysprosium	156-2	233	247	270	250	7.42	cps
Erbium	164-1	213	213	160	196	15.75	cps
Erbium	164-2	137	190	157	161	16.72	cps
Gadolinium	160-1	130	133	153	139	9.09	cps
Gadolinium	160-2	360	347	280	329	13.03	cps
Holmium	165-1	6781643	6737932	6689111	6736229	0.69	cps
Holmium	165-2	5016714	5098914	5050799	5055476	0.82	cps
Indium	115-1	5357669	5401351	5428245	5395755	0.66	cps
Indium	115-2	2140026	2140673	2124196	2134965	0.44	cps
Iron	56-2	282464909	278016423	281436229	280639187	0.83	cps
Iron	57-2	6965055	7031804	6919958	6972273	0.81	cps
Iron	54-2	15304841	15386245	15301296	15330794	0.31	cps
Krypton	83-1	353	447	377	392	12.38	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCV02 Instrumnet Name : P7
Client Sample ID : CCV02 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:10:17 DataFile Name : 035CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	10177455	10345549	10264437	10262480	0.82	cps
Lead	207-1	8995834	8982171	9005594	8994533	0.13	cps
Lead	208-1	41103815	41521217	41047920	41224317	0.63	cps
Lithium	6-1	604756	605288	612950	607665	0.75	cps
Magnesium	24-2	55510974	55484976	56346847	55780933	0.88	cps
Manganese	55-2	10549897	10577291	10504828	10544005	0.35	cps
Molybdenum	94-1	9834410	9917336	10096851	9949532	1.35	cps
Molybdenum	95-1	14148946	14481057	14401172	14343725	1.21	cps
Molybdenum	96-1	15465749	15827027	15696240	15663005	1.17	cps
Molybdenum	97-1	8850499	9063543	8999323	8971122	1.22	cps
Molybdenum	98-1	23398121	22950574	23289771	23212822	1.01	cps
Neodymium	150-1	267	333	200	267	25.00	cps
Neodymium	150-2	103	133	107	114	14.37	cps
Nickel	60-2	483062	481005	476338	480135	0.72	cps
Phosphorus	31-2	75756	75458	75244	75486	0.34	cps
Potassium	39-2	36883034	36782160	36840481	36835225	0.14	cps
Rhodium	103-1	4966867	5110771	4984798	5020812	1.56	cps
Rhodium	103-2	3170452	3184979	3158714	3171382	0.41	cps
Scandium	45-1	3063853	3121619	3081090	3088854	0.96	cps
Scandium	45-2	305757	301937	307343	305012	0.91	cps
Selenium	82-1	54467	55472	56038	55326	1.44	cps
Selenium	77-2	6958	6585	6932	6825	3.05	cps
Selenium	78-2	23105	22985	23155	23081	0.38	cps
Silicon	28-1	29343491	29300855	30115095	29586480	1.55	cps
Silver	107-1	3538411	3653585	3596634	3596210	1.60	cps
Silver	109-1	3338874	3484718	3414734	3412775	2.14	cps
Sodium	23-2	87856975	87645655	87965445	87822692	0.19	cps
Strontium	86-1	8821033	9027919	8987542	8945498	1.23	cps
Strontium	88-1	79209442	79329247	79603019	79380569	0.25	cps
Sulfur	34-1	320535	319206	323938	321226	0.76	cps
Terbium	159-1	6956353	6857567	6809085	6874335	1.09	cps
Terbium	159-2	5145799	4988448	5017102	5050450	1.66	cps
Thallium	203-1	2565248	2640356	2624927	2610177	1.52	cps
Thallium	205-1	6268081	6177764	6195283	6213709	0.77	cps
Tin	118-1	2120789	2171808	2151707	2148101	1.20	cps
Titanium	47-1	3378005	3418965	3448236	3415069	1.03	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCV02 Instrumnet Name : P7
Client Sample ID : CCV02 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:10:17 DataFile Name : 035CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	8187663	8108531	8394897	8230364	1.80	cps
Vanadium	51-2	1077117	1074102	1074678	1075299	0.15	cps
Yttrium	89-1	8072783	8263142	8073566	8136497	1.35	cps
Yttrium	89-2	2423553	2403811	2413201	2413522	0.41	cps
Zinc	66-2	2739892	2699944	2687574	2709137	1.01	cps
Zirconium	90-1	4932801	5089525	5014345	5012223	1.56	cps
Zirconium	91-1	1099504	1118383	1115310	1111066	0.91	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCB02 Instrumnet Name : P7
Client Sample ID : CCB02 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:15:04 DataFile Name : 036CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	227	273	263	254	9.66	cps
Antimony	121-1	297	327	343	322	7.34	cps
Arsenic	75-2	13	3	0	6	124.93	cps
Barium	135-1	57	57	47	53	10.82	cps
Barium	137-1	77	70	107	84	23.13	cps
Beryllium	9-1	61	48	78	62	24.19	cps
Bismuth	209-1	4031451	3997465	3943166	3990694	1.12	cps
Bismuth	209-2	3589633	3513378	3617750	3573587	1.51	cps
Bromine	81-1	30989	30772	30782	30848	0.40	cps
Bromine	81-2	277	377	320	324	15.46	cps
Cadmium	108-1	17	3	7	9	78.08	cps
Cadmium	106-1	1730	1697	1667	1698	1.87	cps
Cadmium	111-1	1259	1232	1205	1232	2.19	cps
Calcium	43-1	463	487	467	472	2.67	cps
Calcium	44-1	11235	11055	11368	11219	1.40	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1847	1853	1877	1859	0.85	cps
Cobalt	59-2	90	50	63	68	30.05	cps
Copper	63-2	2670	2670	2544	2628	2.78	cps
Dysprosium	156-1	7	0	3	3	100.05	cps
Dysprosium	156-2	3	0	3	2	86.60	cps
Erbium	164-1	53	47	83	61	31.96	cps
Erbium	164-2	53	30	43	42	27.72	cps
Gadolinium	160-1	20	20	20	20	0.00	cps
Gadolinium	160-2	213	223	320	252	23.36	cps
Holmium	165-1	6385705	6334635	6363458	6361266	0.40	cps
Holmium	165-2	4784222	4768972	4840019	4797738	0.78	cps
Indium	115-1	5368212	5455380	5413757	5412450	0.81	cps
Indium	115-2	2149788	2119891	2158072	2142584	0.94	cps
Iron	56-2	29579	28617	28524	28907	2.02	cps
Iron	57-2	1387	1417	1400	1401	1.07	cps
Iron	54-2	3090	3284	3030	3135	4.22	cps
Krypton	83-1	320	430	347	366	15.70	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCB02 Instrumnet Name : P7
Client Sample ID : CCB02 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:15:04 DataFile Name : 036CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	770	820	857	816	5.33	cps
Lead	207-1	793	680	733	736	7.71	cps
Lead	208-1	3347	3344	3310	3334	0.61	cps
Lithium	6-1	577398	578102	596418	583973	1.85	cps
Magnesium	24-2	637	607	637	627	2.76	cps
Manganese	55-2	2120	2147	2227	2165	2.56	cps
Molybdenum	94-1	347	373	327	349	6.71	cps
Molybdenum	95-1	230	180	140	183	24.60	cps
Molybdenum	96-1	303	367	317	329	10.15	cps
Molybdenum	97-1	100	97	103	100	3.33	cps
Molybdenum	98-1	313	293	300	302	3.37	cps
Neodymium	150-1	10	7	0	6	91.64	cps
Neodymium	150-2	7	0	7	4	86.60	cps
Nickel	60-2	307	343	360	337	8.11	cps
Phosphorus	31-2	283	330	280	298	9.39	cps
Potassium	39-2	57669	56294	56849	56937	1.22	cps
Rhodium	103-1	5157861	5073330	5062346	5097846	1.03	cps
Rhodium	103-2	3172610	3152696	3239456	3188254	1.43	cps
Scandium	45-1	2973070	2956183	2910694	2946649	1.09	cps
Scandium	45-2	289910	282431	288804	287048	1.41	cps
Selenium	82-1	242	174	264	227	20.84	cps
Selenium	77-2	7	0	3	3	100.05	cps
Selenium	78-2	767	873	733	791	9.24	cps
Silicon	28-1	1220206	1224043	1194564	1212938	1.32	cps
Silver	107-1	113	153	120	129	16.63	cps
Silver	109-1	83	73	90	82	10.20	cps
Sodium	23-2	24757	24296	23788	24280	1.99	cps
Strontium	86-1	700	653	670	674	3.51	cps
Strontium	88-1	650	637	617	634	2.64	cps
Sulfur	34-1	102631	103158	102786	102858	0.26	cps
Terbium	159-1	6779473	6451007	6673552	6634678	2.53	cps
Terbium	159-2	4795101	4839265	4808414	4814260	0.47	cps
Thallium	203-1	520	530	523	524	0.97	cps
Thallium	205-1	1263	1223	1270	1252	2.02	cps
Tin	118-1	1193	1207	1173	1191	1.41	cps
Titanium	47-1	67	80	77	74	9.32	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCB02 Instrumnet Name : P7
Client Sample ID : CCB02 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:15:04 DataFile Name : 036CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	73	67	80	73	9.09	cps
Vanadium	51-2	20	23	10	18	39.03	cps
Yttrium	89-1	7995365	7825742	7777456	7866188	1.45	cps
Yttrium	89-2	2325089	2315781	2328023	2322964	0.28	cps
Zinc	66-2	837	877	867	860	2.42	cps
Zirconium	90-1	617	650	543	603	9.04	cps
Zirconium	91-1	100	110	127	112	12.01	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-04 Instrumnet Name : P7
Client Sample ID : MW-17B-55-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:18:26 DataFile Name : 037AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	9887	9646	9453	9662	2.25	cps
Antimony	121-1	1743	1907	1833	1828	4.48	cps
Arsenic	75-2	313	320	330	321	2.61	cps
Barium	135-1	593560	587693	584692	588648	0.77	cps
Barium	137-1	1023799	1015199	1017392	1018797	0.44	cps
Beryllium	9-1	121	81	104	102	19.72	cps
Bismuth	209-1	4610690	4355494	4443216	4469800	2.90	cps
Bismuth	209-2	4056196	4014593	3955050	4008613	1.27	cps
Bromine	81-1	57375	62023	64008	61135	5.57	cps
Bromine	81-2	7689	7966	8012	7889	2.22	cps
Cadmium	108-1	20	23	13	19	26.96	cps
Cadmium	106-1	2197	2127	1913	2079	7.10	cps
Cadmium	111-1	1554	1506	1363	1474	6.72	cps
Calcium	43-1	434727	429052	425969	429916	1.03	cps
Calcium	44-1	6900062	6922809	6763442	6862104	1.26	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1177	1177	1107	1153	3.50	cps
Cobalt	59-2	26874	26791	25926	26530	1.98	cps
Copper	63-2	2237	2384	2257	2292	3.47	cps
Dysprosium	156-1	27	33	17	26	32.81	cps
Dysprosium	156-2	20	47	33	33	40.01	cps
Erbium	164-1	47	33	73	51	39.85	cps
Erbium	164-2	37	47	57	47	21.43	cps
Gadolinium	160-1	47	60	60	56	13.85	cps
Gadolinium	160-2	300	303	277	293	4.95	cps
Holmium	165-1	7322708	7277300	7191269	7263759	0.92	cps
Holmium	165-2	5547466	5265486	5303422	5372125	2.85	cps
Indium	115-1	6059034	6161632	6027604	6082757	1.15	cps
Indium	115-2	2423020	2426326	2375910	2408419	1.17	cps
Iron	56-2	12874058	12780506	12530116	12728227	1.40	cps
Iron	57-2	335695	336437	331355	334495	0.82	cps
Iron	54-2	718089	718415	707647	714717	0.86	cps
Krypton	83-1	293	463	390	382	22.31	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-04 Instrumnet Name : P7
Client Sample ID : MW-17B-55-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:18:26 DataFile Name : 037AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	953	803	823	860	9.47	cps
Lead	207-1	713	757	700	723	4.10	cps
Lead	208-1	3424	3264	3327	3338	2.41	cps
Lithium	6-1	658585	648358	620002	642315	3.11	cps
Magnesium	24-2	1801403	1796536	1750222	1782720	1.58	cps
Manganese	55-2	1065794	1056320	1044781	1055632	1.00	cps
Molybdenum	94-1	36195	36178	36382	36251	0.31	cps
Molybdenum	95-1	65111	64314	63042	64155	1.63	cps
Molybdenum	96-1	68761	68721	68101	68527	0.54	cps
Molybdenum	97-1	39797	40001	39269	39689	0.95	cps
Molybdenum	98-1	103869	103819	103262	103650	0.33	cps
Neodymium	150-1	57	37	33	42	29.89	cps
Neodymium	150-2	13	20	17	17	20.01	cps
Nickel	60-2	9563	9907	9623	9698	1.89	cps
Phosphorus	31-2	2844	2997	2894	2911	2.69	cps
Potassium	39-2	2425208	2422010	2403424	2416881	0.49	cps
Rhodium	103-1	5811307	5781025	5619839	5737390	1.79	cps
Rhodium	103-2	3642728	3639026	3548880	3610211	1.47	cps
Scandium	45-1	3383582	3333300	3328395	3348426	0.91	cps
Scandium	45-2	330360	326192	325887	327480	0.76	cps
Selenium	82-1	334	156	258	249	35.69	cps
Selenium	77-2	3	0	7	3	100.05	cps
Selenium	78-2	840	770	827	812	4.58	cps
Silicon	28-1	53866249	54507666	54319608	54231174	0.61	cps
Silver	107-1	93	83	113	97	15.81	cps
Silver	109-1	60	27	63	50	40.55	cps
Sodium	23-2	2487531	2482403	2433050	2467661	1.22	cps
Strontium	86-1	500386	499681	493866	497978	0.72	cps
Strontium	88-1	4456010	4430814	4439252	4442026	0.29	cps
Sulfur	34-1	129597	126250	125632	127160	1.68	cps
Terbium	159-1	7569872	7581927	7478072	7543290	0.75	cps
Terbium	159-2	5488761	5416977	5350806	5418848	1.27	cps
Thallium	203-1	1587	1647	1400	1545	8.33	cps
Thallium	205-1	3671	3607	3464	3581	2.96	cps
Tin	118-1	2114	2177	2190	2160	1.90	cps
Titanium	47-1	697	587	633	639	8.64	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-04 Instrumnet Name : P7
Client Sample ID : MW-17B-55-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:18:26 DataFile Name : 037AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	220	200	187	202	8.30	cps
Vanadium	51-2	1130	1167	1123	1140	2.05	cps
Yttrium	89-1	9000432	9037405	8931474	8989770	0.60	cps
Yttrium	89-2	2673560	2626709	2680147	2660139	1.10	cps
Zinc	66-2	2610	2497	2617	2575	2.62	cps
Zirconium	90-1	480	470	473	474	1.07	cps
Zirconium	91-1	97	50	107	84	35.82	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-08 Instrumnet Name : P7
Client Sample ID : EB01-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:21:37 DataFile Name : 038AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1510	1453	1357	1440	5.38	cps
Antimony	121-1	53	113	77	81	37.29	cps
Arsenic	75-2	7	17	7	10	57.72	cps
Barium	135-1	173	193	163	177	8.65	cps
Barium	137-1	287	290	313	297	4.90	cps
Beryllium	9-1	30	26	46	34	31.08	cps
Bismuth	209-1	4520117	4532625	4465485	4506075	0.79	cps
Bismuth	209-2	3979442	3920356	3967600	3955799	0.79	cps
Bromine	81-1	35516	35977	34968	35487	1.42	cps
Bromine	81-2	873	753	867	831	8.11	cps
Cadmium	108-1	10	3	7	7	50.03	cps
Cadmium	106-1	2077	2164	2124	2121	2.04	cps
Cadmium	111-1	1487	1542	1505	1511	1.87	cps
Calcium	43-1	770	957	860	862	10.83	cps
Calcium	44-1	17924	17574	17497	17665	1.29	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	863	1277	883	1008	23.15	cps
Cobalt	59-2	33	57	57	49	27.56	cps
Copper	63-2	2324	2174	2287	2261	3.46	cps
Dysprosium	156-1	3	0	3	2	86.60	cps
Dysprosium	156-2	7	13	0	7	99.98	cps
Erbium	164-1	50	63	83	66	25.59	cps
Erbium	164-2	37	30	37	34	11.18	cps
Gadolinium	160-1	30	47	20	32	41.81	cps
Gadolinium	160-2	287	373	310	323	13.87	cps
Holmium	165-1	7231721	7132631	7172968	7179107	0.69	cps
Holmium	165-2	5377691	5205190	5219144	5267342	1.82	cps
Indium	115-1	6096863	6115800	6058785	6090483	0.48	cps
Indium	115-2	2423135	2373582	2326335	2374351	2.04	cps
Iron	56-2	34052	34770	33765	34196	1.51	cps
Iron	57-2	1643	1577	1627	1616	2.15	cps
Iron	54-2	3137	3174	3200	3170	1.00	cps
Krypton	83-1	347	340	417	368	11.55	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-08 Instrumnet Name : P7
Client Sample ID : EB01-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:21:37 DataFile Name : 038AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	2924	3024	2994	2980	1.72	cps
Lead	207-1	2444	2430	2577	2484	3.27	cps
Lead	208-1	11525	11655	11382	11521	1.19	cps
Lithium	6-1	623754	625914	615740	621803	0.86	cps
Magnesium	24-2	3424	3390	3487	3434	1.43	cps
Manganese	55-2	2767	2854	2717	2779	2.49	cps
Molybdenum	94-1	157	140	163	153	7.84	cps
Molybdenum	95-1	90	60	83	78	20.25	cps
Molybdenum	96-1	163	183	197	181	9.26	cps
Molybdenum	97-1	67	63	57	62	8.18	cps
Molybdenum	98-1	160	153	140	151	6.74	cps
Neodymium	150-1	20	23	10	18	39.03	cps
Neodymium	150-2	3	7	7	6	34.70	cps
Nickel	60-2	217	207	213	212	2.40	cps
Phosphorus	31-2	477	427	523	476	10.17	cps
Potassium	39-2	54982	54935	54407	54775	0.58	cps
Rhodium	103-1	5843275	5761375	5764199	5789616	0.80	cps
Rhodium	103-2	3591216	3557231	3536072	3561506	0.78	cps
Scandium	45-1	3315516	3294761	3321486	3310588	0.42	cps
Scandium	45-2	324586	320966	319067	321540	0.87	cps
Selenium	82-1	227	279	183	230	20.73	cps
Selenium	77-2	0	3	0	1	173.21	cps
Selenium	78-2	753	730	770	751	2.67	cps
Silicon	28-1	1252224	1260431	1262210	1258289	0.42	cps
Silver	107-1	73	63	47	61	22.04	cps
Silver	109-1	63	50	50	54	14.14	cps
Sodium	23-2	38160	39300	39203	38888	1.62	cps
Strontium	86-1	733	717	700	717	2.33	cps
Strontium	88-1	1890	1803	1760	1818	3.64	cps
Sulfur	34-1	90151	90523	90338	90337	0.21	cps
Terbium	159-1	7340173	7455483	7408972	7401543	0.78	cps
Terbium	159-2	5374803	5229075	5337475	5313784	1.42	cps
Thallium	203-1	323	243	277	281	14.29	cps
Thallium	205-1	617	687	663	656	5.44	cps
Tin	118-1	2127	2027	1927	2027	4.93	cps
Titanium	47-1	364	107	103	191	78.08	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : Q1711-08 Instrumnet Name : P7
Client Sample ID : EB01-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:21:37 DataFile Name : 038AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	57	23	40	40	41.68	cps
Vanadium	51-2	13	33	13	20	57.74	cps
Yttrium	89-1	8815942	8863234	8806797	8828658	0.34	cps
Yttrium	89-2	2648292	2569782	2602679	2606918	1.51	cps
Zinc	66-2	660	717	770	716	7.69	cps
Zirconium	90-1	403	377	373	384	4.28	cps
Zirconium	91-1	90	83	57	77	23.00	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCV03 Instrumnet Name : P7
Client Sample ID : CCV03 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:24:57 DataFile Name : 039CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	6468931	6243213	6416652	6376265	1.85	cps
Antimony	121-1	2429705	2508544	2511950	2483399	1.87	cps
Arsenic	75-2	162031	161680	159224	160978	0.95	cps
Barium	135-1	3236406	3320885	3321991	3293094	1.49	cps
Barium	137-1	5562821	5634512	5716927	5638087	1.37	cps
Beryllium	9-1	326404	336425	342635	335155	2.44	cps
Bismuth	209-1	3814049	3781062	3827410	3807507	0.63	cps
Bismuth	209-2	3410900	3414583	3364718	3396733	0.82	cps
Bromine	81-1	31063	31407	30418	30963	1.62	cps
Bromine	81-2	487	507	567	520	8.01	cps
Cadmium	108-1	49792	51056	50989	50613	1.41	cps
Cadmium	106-1	72034	74212	75408	73885	2.32	cps
Cadmium	111-1	687740	704421	709560	700574	1.63	cps
Calcium	43-1	3422833	3477756	3462762	3454450	0.82	cps
Calcium	44-1	54861776	56519321	55554678	55645258	1.50	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1184629	1175535	1182845	1181003	0.41	cps
Cobalt	59-2	1831401	1838635	1819900	1829979	0.52	cps
Copper	63-2	13532925	13530537	13512399	13525287	0.08	cps
Dysprosium	156-1	157	177	193	176	10.46	cps
Dysprosium	156-2	250	227	230	236	5.36	cps
Erbium	164-1	173	207	270	217	22.66	cps
Erbium	164-2	153	123	110	129	17.22	cps
Gadolinium	160-1	140	77	147	121	31.90	cps
Gadolinium	160-2	400	307	300	336	16.66	cps
Holmium	165-1	6531174	6368567	6512168	6470637	1.37	cps
Holmium	165-2	4964863	4954207	4846634	4921901	1.33	cps
Indium	115-1	5189374	5176943	5170918	5179078	0.18	cps
Indium	115-2	2070262	2097051	2042442	2069919	1.32	cps
Iron	56-2	273010076	270858383	270178549	271349003	0.54	cps
Iron	57-2	6754029	6647059	6647749	6682946	0.92	cps
Iron	54-2	14842715	14830773	14616498	14763329	0.86	cps
Krypton	83-1	343	383	383	370	6.24	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCV03 Instrumnet Name : P7
Client Sample ID : CCV03 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:24:57 DataFile Name : 039CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	9703463	9855952	9849748	9803054	0.88	cps
Lead	207-1	8500874	8635030	8830386	8655430	1.91	cps
Lead	208-1	38671400	38980751	39693172	39115108	1.34	cps
Lithium	6-1	592693	605654	617168	605172	2.02	cps
Magnesium	24-2	53696369	53860818	54322924	53960037	0.60	cps
Manganese	55-2	10110180	10062944	10128737	10100620	0.34	cps
Molybdenum	94-1	9446943	9537917	9659955	9548272	1.12	cps
Molybdenum	95-1	13652788	13850697	13715316	13739600	0.74	cps
Molybdenum	96-1	14744229	15097185	14996137	14945850	1.22	cps
Molybdenum	97-1	8345026	8611409	8564618	8507018	1.67	cps
Molybdenum	98-1	21561375	22006408	22508960	22025581	2.15	cps
Neodymium	150-1	253	257	213	241	10.00	cps
Neodymium	150-2	120	73	70	88	31.85	cps
Nickel	60-2	469968	468638	468041	468882	0.21	cps
Phosphorus	31-2	73947	72588	72939	73158	0.96	cps
Potassium	39-2	35729742	35170363	35742393	35547499	0.92	cps
Rhodium	103-1	4815278	4854561	4815015	4828284	0.47	cps
Rhodium	103-2	3064287	3060287	2977246	3033940	1.62	cps
Scandium	45-1	2992900	3057532	3029098	3026510	1.07	cps
Scandium	45-2	299614	298165	296641	298140	0.50	cps
Selenium	82-1	53352	53349	53804	53502	0.49	cps
Selenium	77-2	6628	6355	6478	6487	2.11	cps
Selenium	78-2	22073	22240	22697	22337	1.45	cps
Silicon	28-1	28558196	29382863	29012458	28984506	1.43	cps
Silver	107-1	3400610	3412771	3457820	3423733	0.88	cps
Silver	109-1	3204746	3317474	3256010	3259410	1.73	cps
Sodium	23-2	86058695	84155972	85235665	85150111	1.12	cps
Strontium	86-1	8372989	8637666	8605021	8538559	1.69	cps
Strontium	88-1	75205964	76322862	77279167	76269331	1.36	cps
Sulfur	34-1	314309	314563	315127	314666	0.13	cps
Terbium	159-1	6623136	6748529	6817684	6729783	1.47	cps
Terbium	159-2	4921489	4968150	4855788	4915143	1.15	cps
Thallium	203-1	2475202	2512920	2558106	2515409	1.65	cps
Thallium	205-1	5781338	6017417	5939401	5912719	2.03	cps
Tin	118-1	1986534	2055496	2050836	2030955	1.90	cps
Titanium	47-1	3299515	3292842	3408495	3333617	1.95	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCV03 Instrumnet Name : P7
Client Sample ID : CCV03 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:24:57 DataFile Name : 039CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	7580905	7884685	7878291	7781294	2.23	cps
Vanadium	51-2	1040793	1030690	1026825	1032769	0.70	cps
Yttrium	89-1	7722632	7976128	7905964	7868242	1.66	cps
Yttrium	89-2	2456597	2343070	2294197	2364621	3.52	cps
Zinc	66-2	2609107	2643549	2598819	2617158	0.90	cps
Zirconium	90-1	4721033	4744304	4754011	4739782	0.36	cps
Zirconium	91-1	1047928	1063068	1070292	1060429	1.08	cps

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LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCB03 Instrumnet Name : P7
Client Sample ID : CCB03 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:28:58 DataFile Name : 040CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	377	340	257	324	18.95	cps
Antimony	121-1	280	277	363	307	16.01	cps
Arsenic	75-2	7	0	13	7	99.98	cps
Barium	135-1	80	93	80	84	9.11	cps
Barium	137-1	140	123	130	131	6.40	cps
Beryllium	9-1	54	58	51	54	6.19	cps
Bismuth	209-1	3978921	4027517	4062107	4022849	1.04	cps
Bismuth	209-2	3663516	3572276	3588925	3608239	1.35	cps
Bromine	81-1	31397	31140	31942	31493	1.30	cps
Bromine	81-2	393	400	420	404	3.43	cps
Cadmium	108-1	10	10	3	8	49.52	cps
Cadmium	106-1	1727	1820	1813	1787	2.91	cps
Cadmium	111-1	1272	1307	1324	1301	2.04	cps
Calcium	43-1	540	460	483	494	8.32	cps
Calcium	44-1	11608	12022	12296	11975	2.89	cps
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1783	1763	1763	1770	0.65	cps
Cobalt	59-2	90	73	73	79	12.20	cps
Copper	63-2	2617	2617	2507	2580	2.46	cps
Dysprosium	156-1	7	3	13	8	65.47	cps
Dysprosium	156-2	3	0	0	1	173.21	cps
Erbium	164-1	73	57	30	53	40.98	cps
Erbium	164-2	30	47	33	37	24.06	cps
Gadolinium	160-1	30	23	20	24	20.83	cps
Gadolinium	160-2	253	207	293	251	17.27	cps
Holmium	165-1	6409057	6344071	6379604	6377577	0.51	cps
Holmium	165-2	5037398	4884970	5030554	4984307	1.73	cps
Indium	115-1	5350938	5470645	5460746	5427443	1.22	cps
Indium	115-2	2212990	2178104	2227929	2206341	1.16	cps
Iron	56-2	32054	31433	30852	31446	1.91	cps
Iron	57-2	1477	1543	1473	1498	2.64	cps
Iron	54-2	3320	3147	3250	3239	2.69	cps
Krypton	83-1	403	400	437	413	4.91	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCB03 Instrumnet Name : P7
Client Sample ID : CCB03 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:28:58 DataFile Name : 040CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	206-1	877	823	863	854	3.25	cps
Lead	207-1	757	780	807	781	3.20	cps
Lead	208-1	3390	3447	3434	3424	0.87	cps
Lithium	6-1	603208	620299	612572	612027	1.40	cps
Magnesium	24-2	1213	1267	1087	1189	7.78	cps
Manganese	55-2	2504	2330	2437	2424	3.61	cps
Molybdenum	94-1	403	307	317	342	15.53	cps
Molybdenum	95-1	300	257	220	259	15.47	cps
Molybdenum	96-1	387	437	417	413	6.09	cps
Molybdenum	97-1	180	163	183	176	6.10	cps
Molybdenum	98-1	463	463	473	467	1.24	cps
Neodymium	150-1	0	7	0	2	173.21	cps
Neodymium	150-2	3	0	10	4	114.60	cps
Nickel	60-2	430	387	353	390	9.86	cps
Phosphorus	31-2	347	340	313	333	5.29	cps
Potassium	39-2	58586	58184	58435	58402	0.35	cps
Rhodium	103-1	5153230	5226515	5167792	5182512	0.75	cps
Rhodium	103-2	3315900	3290337	3288600	3298279	0.46	cps
Scandium	45-1	2970365	3014033	2991877	2992092	0.73	cps
Scandium	45-2	290471	289315	290984	290256	0.29	cps
Selenium	82-1	162	227	168	186	19.33	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	823	717	770	770	6.93	cps
Silicon	28-1	1224090	1222154	1215014	1220419	0.39	cps
Silver	107-1	233	123	100	152	46.78	cps
Silver	109-1	93	113	90	99	12.77	cps
Sodium	23-2	24616	24012	24179	24269	1.29	cps
Strontium	86-1	573	657	720	650	11.32	cps
Strontium	88-1	937	1093	1267	1099	15.02	cps
Sulfur	34-1	106340	105978	105279	105866	0.51	cps
Terbium	159-1	6463625	6720007	6723029	6635554	2.24	cps
Terbium	159-2	5028706	4903369	4906787	4946287	1.44	cps
Thallium	203-1	420	403	477	433	8.87	cps
Thallium	205-1	927	1047	1037	1003	6.64	cps
Tin	118-1	1197	1250	1093	1180	6.75	cps
Titanium	47-1	100	93	120	104	13.29	cps

LB Number : LB135315 Operator : Jaswal
Lab Sample ID : CCB03 Instrumnet Name : P7
Client Sample ID : CCB03 Dilution Factor : 1
Date & Time Acquired : 2025-04-04 16:28:58 DataFile Name : 040CCBE.d

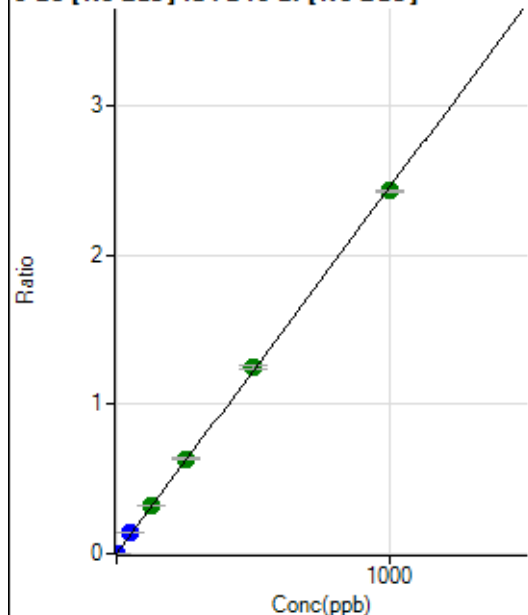
Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Uranium	238-1	137	83	83	101	30.46	cps
Vanadium	51-2	20	13	30	21	39.75	cps
Yttrium	89-1	7840593	7994843	8027447	7954294	1.25	cps
Yttrium	89-2	2363545	2354449	2387004	2368333	0.71	cps
Zinc	66-2	993	987	940	973	2.99	cps
Zirconium	90-1	693	523	760	659	18.52	cps
Zirconium	91-1	140	103	143	129	17.22	cps

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Batch Folder: D:\Agilent\ICPMH\1\DATA\P8040725 MS.b\
Analysis File: P8040725 MS.batch.bin
DA Date-Time: 2025-04-07 16:00:11
Calibration Title:
Calibration Method: External Calibration
VIS Interpolation Fit:

Level	Standard Data File	Sample Name	Acq. Date-Time
1	004CALB.d	S00	2025-04-07 11:29:45
2	006CALS.d	S02	2025-04-07 11:36:29
3	007CALB.d	S03	2025-04-07 11:39:50
4	008CALS.d	S04	2025-04-07 11:42:51
5	009CALS.d	S05	2025-04-07 11:45:39
6	010CALS.d	S06	2025-04-07 11:48:26
7	011CALS.d	S07	2025-04-07 11:51:11
8	012CALS.d	S08	2025-04-07 11:54:02

9 Be [No Gas] ISTD:6 Li [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	75.17	0.0000	P	12.2
2	☐	1.000	1.226	10086.30	0.0030	P	2.3
3	☐	50.000	56.540	458265.89	0.1385	P	2.3
4	☐	125.000	132.386	1057454.48	0.3244	A	1.5
5	☐	250.000	258.599	2032733.64	0.6336	A	2.0
6	☐	500.000	510.945	3900568.68	1.2518	A	1.8
7	☐	1000.000	991.128	7677169.74	2.4282	A	0.7
8	☐			314.55	0.0001	P	19.9

$$y = 0.0024 * x + 2.2163E-005$$

R = 0.9999

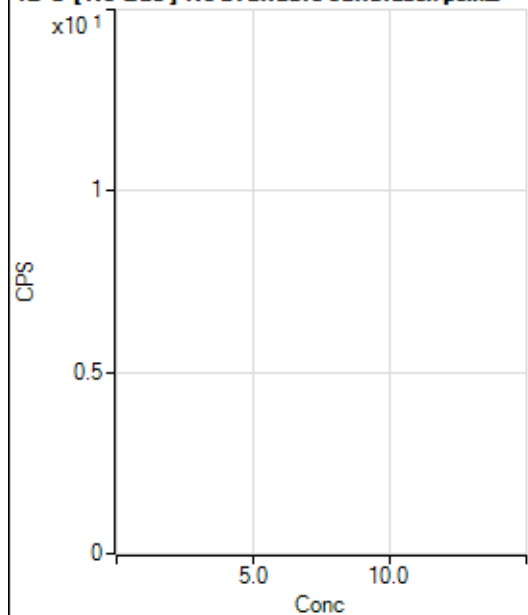
DL = 0.00331

BEC = 0.009046

Weight: <None>

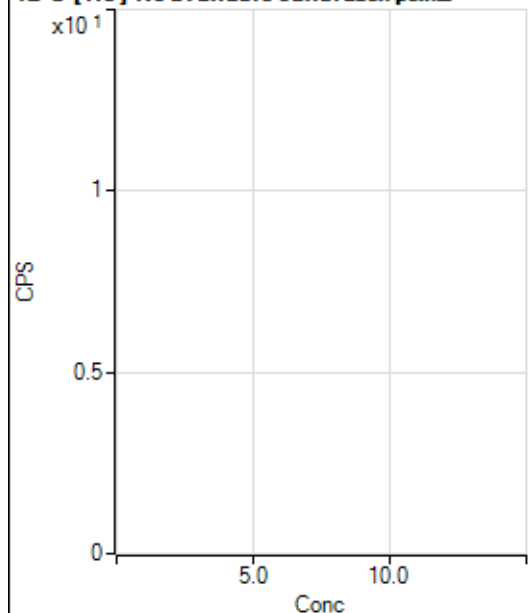
Min Conc: 0

12 C [No Gas] No available calibration points



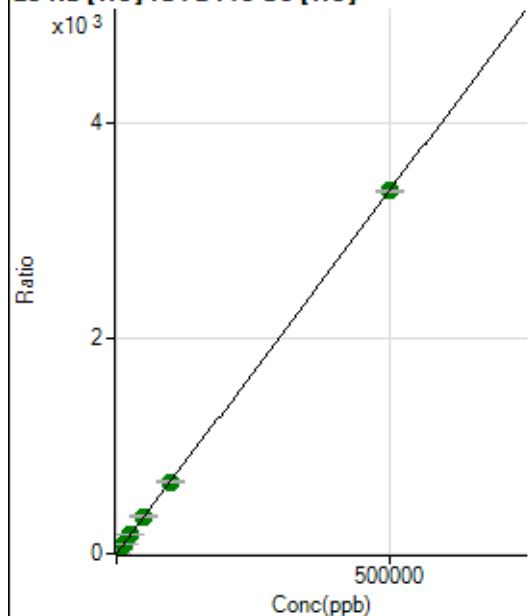
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			4084702.20		A	3.5
2	☐			4404983.27		A	2.4
3	☐			4597642.53		A	1.7
4	☐			4716622.22		A	1.1
5	☐			4965558.40		A	1.1
6	☐			5391306.80		A	0.8
7	☐			6476955.39		A	2.3
8	☐			5252432.84		A	1.3

12 C [He] No available calibration points



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			30162.05		P	0.4
2	☐			32396.79		P	1.1
3	☐			33813.29		P	0.5
4	☐			35259.98		P	0.5
5	☐			37821.83		P	0.6
6	☐			43028.31		P	0.1
7	☐			53802.38		P	1.1
8	☐			56432.08		P	1.2

23 Na [He] ISTD:45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	54034.06	0.3429	P	1.5
2	☐	500.000	588.663	670740.76	4.3018	P	0.3
3	☐	5000.000	5448.974	5578731.03	36.9881	A	0.9
4	☐	12500.000	13331.454	13520773.27	89.9990	A	1.5
5	☐	25000.000	26054.707	26438731.55	175.5648	A	0.5
6	☐	50000.000	51577.487	52119820.33	347.2095	A	1.5
7	☐	100000.00	99107.711	103863417.34	666.8576	A	0.9
8	☐	500000.00	499942.60	487076526.08	3,362.5345	A	0.8

$$y = 0.0067 * x + 0.3429$$

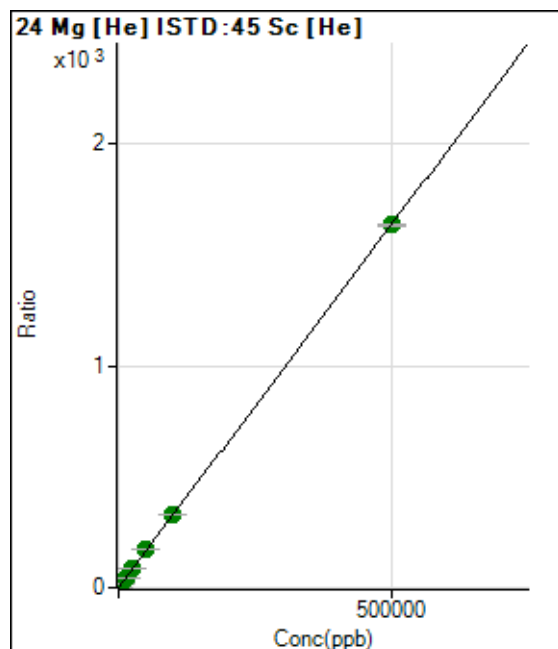
$$R = 1.0000$$

$$DL = 2.365$$

$$BEC = 50.99$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	547.79	0.0035	P	4.6
2	☐	500.000	608.386	311205.81	1.9959	P	0.7
3	☐	5000.000	5667.844	2800005.30	18.5648	A	0.4
4	☐	12500.000	13700.345	6741401.43	44.8701	A	0.7
5	☐	25000.000	26735.820	13185556.19	87.5594	A	1.2
6	☐	50000.000	52670.278	25893684.89	172.4909	A	1.0
7	☐	100000.00	99993.969	51004313.13	327.4691	A	0.3
8	☐	500000.00	499610.59	237006034.25	1,636.1551	A	0.6

$$y = 0.0033 * x + 0.0035$$

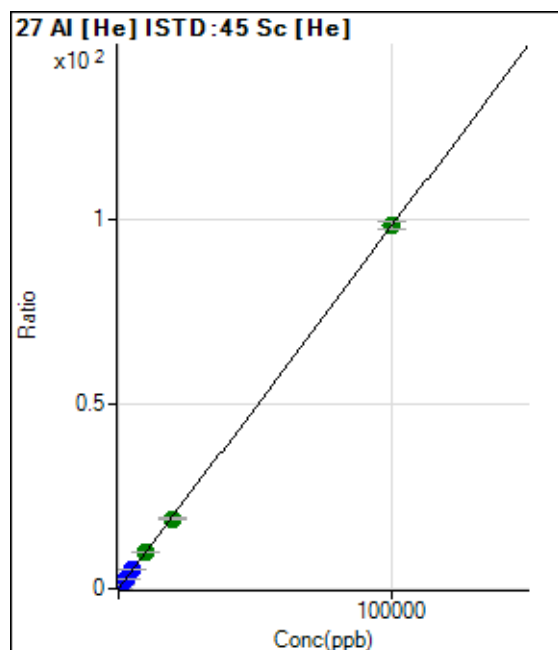
$$R = 1.0000$$

$$DL = 0.1473$$

$$BEC = 1.062$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	362.23	0.0023	P	10.8
2	☐	20.000	24.192	4062.83	0.0261	P	5.2
3	☐	1000.000	1098.664	163090.23	1.0813	P	0.5
4	☐	2500.000	2647.602	390999.58	2.6026	P	1.1
5	☐	5000.000	5149.294	761907.84	5.0595	P	1.3
6	☐	10000.000	9972.547	1470536.42	9.7965	A	1.8
7	☐	20000.000	19336.217	2958257.53	18.9928	A	0.6
8	☐	100000.00	100123.36	14243714.51	98.3354	A	2.1

$$y = 9.8212E-004 * x + 0.0023$$

$$R = 1.0000$$

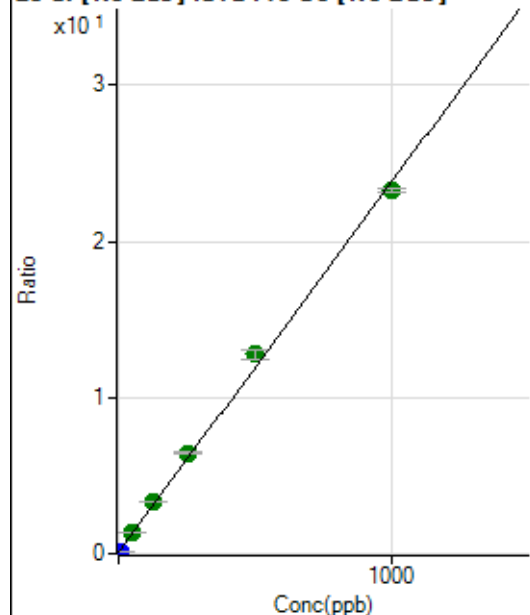
$$DL = 0.7589$$

$$BEC = 2.339$$

Weight: <None>

Min Conc: 0

28 Si [No Gas] ISTD :45 Sc [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	554210.01	0.0881	P	1.0
2	☐	10.000	1.230	723772.64	0.1173	P	3.4
3	☐	50.000	54.869	8591422.79	1.3888	A	1.7
4	☐	125.000	135.927	19857199.01	3.3102	A	0.1
5	☐	250.000	268.842	38839258.03	6.4608	A	1.3
6	☐	500.000	534.276	73905119.46	12.7527	A	4.4
7	☐	1000.000	976.630	139778202.36	23.2384	A	0.9
8	☐			978754.80	0.1806	M	7.7

$$y = 0.0237 * x + 0.0881$$

$$R = 0.9987$$

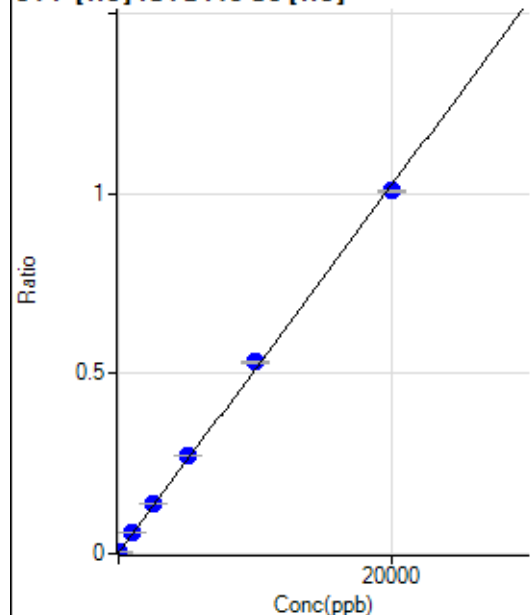
$$DL = 0.1106$$

$$BEC = 3.718$$

Weight: <None>

Min Conc: 0

31 P [He] ISTD :45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	-21.488	181.11	0.0012	P	21.3
2	☐	0.000	21.488	521.13	0.0033	P	8.9
3	☐	1000.000	1094.237	8750.48	0.0580	P	0.6
4	☐	2500.000	2652.441	20650.35	0.1374	P	0.8
5	☐	5000.000	5291.388	40952.14	0.2719	P	1.2
6	☐	10000.000	10398.806	79902.67	0.5323	P	1.0
7	☐	20000.000	19703.983	156777.76	1.0066	P	0.6
8	☐			228.89	0.0016	P	13.0

$$y = 5.0970E-005 * x + 0.0022$$

$$R = 0.9996$$

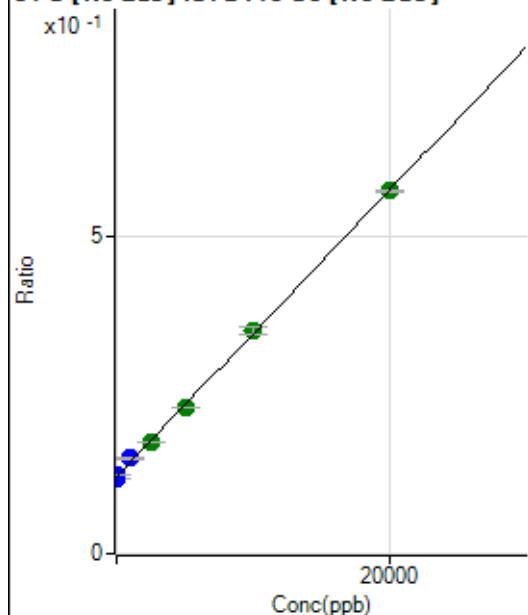
$$DL = 15.92$$

$$BEC = 44.06$$

Weight: <None>

Min Conc: 0

34 S [No Gas] ISTD:45 Sc [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	-110.178	745699.79	0.1186	P	0.9
2	☐	0.000	110.178	762694.49	0.1236	P	1.2
3	☐	1000.000	1268.330	925985.01	0.1497	P	1.4
4	☐	2500.000	2430.479	1054997.02	0.1759	A	0.6
5	☐	5000.000	4804.898	1379035.00	0.2294	A	0.5
6	☐	10000.000	10213.654	2036281.93	0.3513	A	3.6
7	☐	20000.000	19937.222	3431241.09	0.5704	A	0.8
8	☐			599553.68	0.1107	P	1.5

$$y = 2.2538E-005 * x + 0.1211$$

R = 0.9997

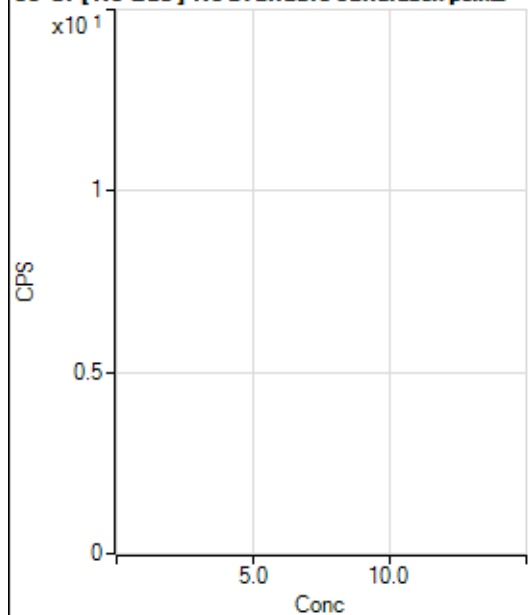
DL = 171.9

BEC = 5373

Weight: <None>

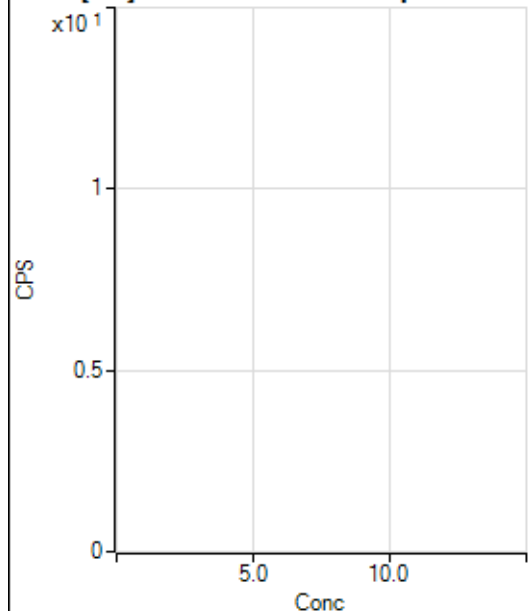
Min Conc: 0

35 Cl [No Gas] No available calibration points



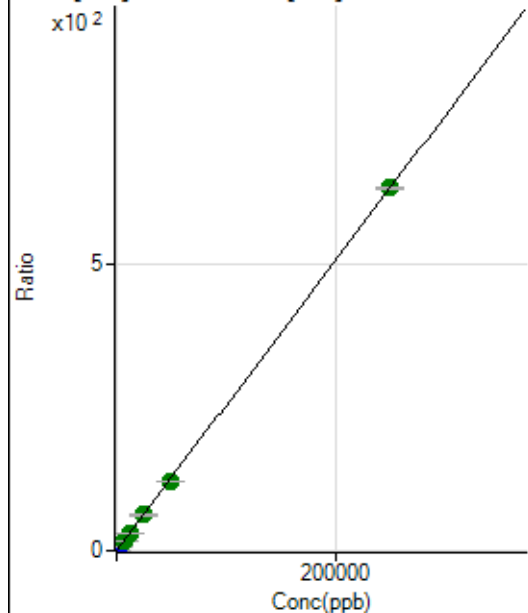
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			195717.10		P	1.4
2	☐			200328.98		P	0.5
3	☐			229321.96		P	0.2
4	☐			232312.79		P	1.5
5	☐			243180.89		P	1.6
6	☐			269146.02		P	1.3
7	☐			334217.75		P	2.1
8	☐			204174.79		P	0.9

35 Cl [He] No available calibration points



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			1042.27		P	9.9
2	☐			1091.17		P	5.4
3	☐			1230.07		P	4.8
4	☐			1250.07		P	2.6
5	☐			1238.96		P	4.0
6	☐			1462.31		P	2.3
7	☐			1890.14		P	1.8
8	☐			1255.63		P	5.0

39 K [He] ISTD:45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	22599.98	0.1434	P	1.1
2	☐	500.000	545.588	237537.19	1.5234	P	0.2
3	☐	2500.000	2582.447	1006847.49	6.6756	P	0.4
4	☐	6250.000	6413.401	2458929.88	16.3658	A	0.4
5	☐	12500.000	12320.469	4714560.31	31.3074	A	1.1
6	☐	25000.000	24550.461	9343911.46	62.2425	A	1.0
7	☐	50000.000	47362.102	18681857.78	119.9433	A	0.4
8	☐	250000.00	250576.50	91834034.19	633.9634	A	0.3

$$y = 0.0025 * x + 0.1434$$

$$R = 0.9999$$

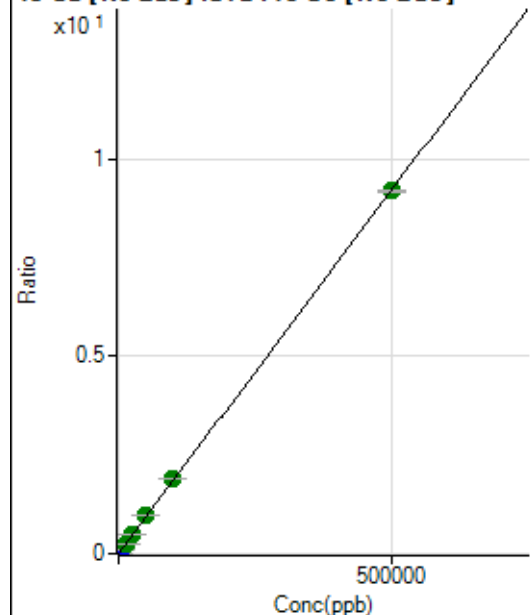
$$DL = 1.828$$

$$BEC = 56.69$$

Weight: <None>

Min Conc: 0

43 Ca [No Gas] ISTD:45 Sc [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	4700.81	0.0007	P	2.3
2	☐	500.000	577.241	70206.69	0.0114	P	1.5
3	☐	5000.000	5425.151	622552.94	0.1006	P	1.6
4	☐	12500.000	13393.711	1483752.48	0.2473	A	1.3
5	☐	25000.000	26325.525	2918410.37	0.4854	A	0.2
6	☐	50000.000	53089.745	5670672.07	0.9782	A	3.3
7	☐	100000.00	102629.55	11370193.58	1.8903	A	0.9
8	☐	500000.00	499072.16	49791317.03	9.1894	A	0.4

$$y = 1.8412E-005 * x + 7.4774E-004$$

R = 1.0000

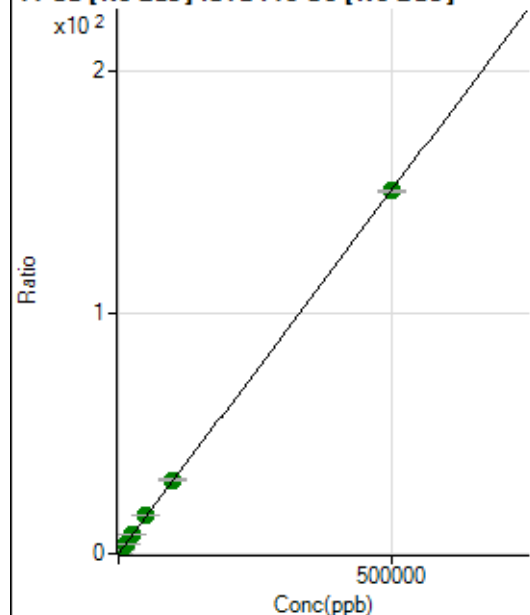
DL = 2.793

BEC = 40.61

Weight: <None>

Min Conc: 0

44 Ca [No Gas] ISTD:45 Sc [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	89986.77	0.0143	P	1.3
2	☐	500.000	575.398	1159340.74	0.1878	P	0.9
3	☐	5000.000	5300.213	9977025.68	1.6127	A	2.0
4	☐	12500.000	13304.927	24155254.36	4.0268	A	0.7
5	☐	25000.000	25974.783	47178405.96	7.8478	A	0.7
6	☐	50000.000	52730.613	92259508.62	15.9168	A	3.7
7	☐	100000.00	101764.93	184688063.92	30.7046	A	0.8
8	☐	500000.00	499302.01	815950672.29	150.5937	A	0.9

$$y = 3.0158E-004 * x + 0.0143$$

R = 1.0000

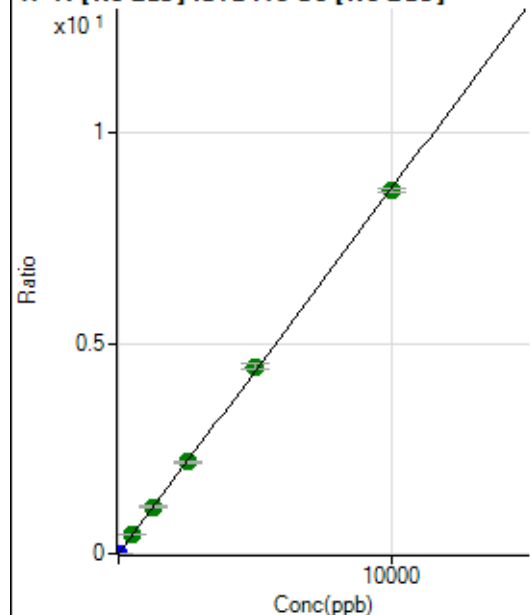
DL = 1.91

BEC = 47.46

Weight: <None>

Min Conc: 0

47 Ti [No Gas] ISTD:45 Sc [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	328.90	0.0001	P	2.8
2	☐	5.000	5.701	30907.76	0.0050	P	1.4
3	☐	500.000	519.580	2794586.80	0.4517	A	0.5
4	☐	1250.000	1285.786	6704408.02	1.1177	A	0.9
5	☐	2500.000	2503.535	13082548.28	2.1762	A	0.3
6	☐	5000.000	5125.318	25822304.61	4.4550	A	3.8
7	☐	10000.000	9931.005	51922724.23	8.6322	A	0.9
8	☐			3949.47	0.0007	P	3.8

$$y = 8.6921E-004 * x + 5.2330E-005$$

$$R = 0.9999$$

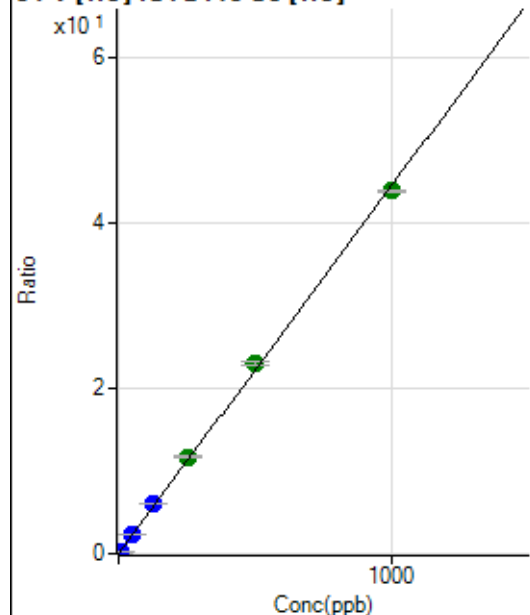
$$DL = 0.005$$

$$BEC = 0.0602$$

Weight: <None>

Min Conc: 0

51 V [He] ISTD:45 Sc [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	82.22	0.0005	P	32.0
2	☐	5.000	5.717	39718.27	0.2547	P	0.3
3	☐	50.000	54.476	365450.13	2.4230	P	0.6
4	☐	125.000	133.791	893931.99	5.9500	P	0.6
5	☐	250.000	263.169	1762395.48	11.7032	A	0.9
6	☐	500.000	517.980	3457695.57	23.0342	A	1.6
7	☐	1000.000	986.391	6831899.27	43.8637	A	0.8
8	☐			1694.56	0.0117	P	7.8

$$y = 0.0445 * x + 5.2249E-004$$

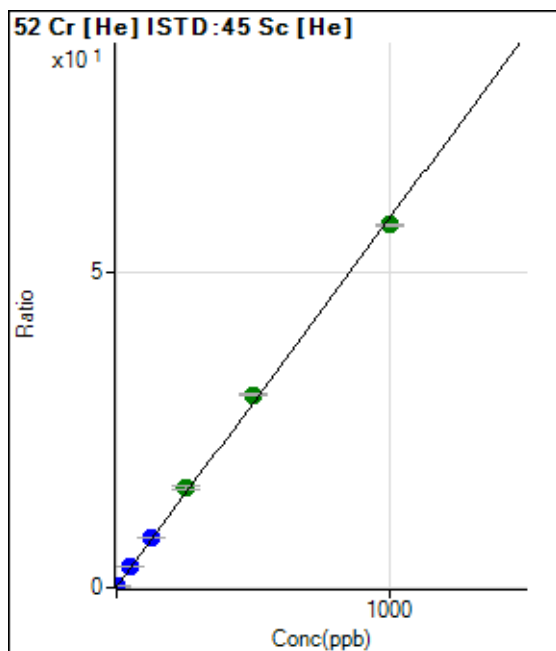
$$R = 0.9997$$

$$DL = 0.01128$$

$$BEC = 0.01175$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	14658.73	0.0930	P	1.2
2	☐	2.000	2.380	36137.89	0.2318	P	1.0
3	☐	50.000	54.622	494203.67	3.2767	P	0.9
4	☐	125.000	133.761	1185324.00	7.8894	P	0.3
5	☐	250.000	269.210	2376821.74	15.7842	A	2.3
6	☐	500.000	522.607	4586566.07	30.5536	A	1.7
7	☐	1000.000	982.567	8934630.07	57.3627	A	0.5
8	☐			71331.04	0.4924	P	1.7

$$y = 0.0583 * x + 0.0930$$

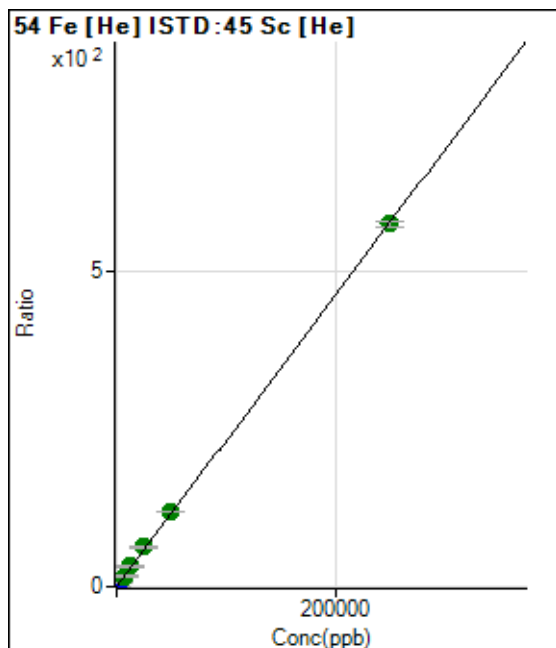
$$R = 0.9994$$

$$DL = 0.05723$$

$$BEC = 1.596$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	3983.93	0.0253	P	3.2
2	☐	50.000	62.206	26285.36	0.1686	P	2.3
3	☐	2500.000	2900.077	1011370.49	6.7056	P	0.9
4	☐	6250.000	7259.035	2516124.62	16.7464	A	0.4
5	☐	12500.000	13889.919	4821910.21	32.0205	A	1.3
6	☐	25000.000	27281.040	9436824.93	62.8668	A	1.9
7	☐	50000.000	51479.184	18473694.72	118.6068	A	0.7
8	☐	250000.00	249377.33	83212239.32	574.4623	A	1.5

$$y = 0.0023 * x + 0.0253$$

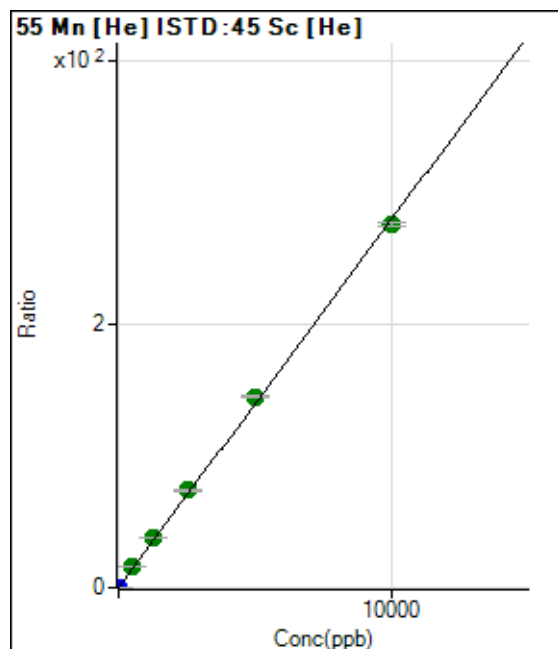
$$R = 0.9999$$

$$DL = 1.053$$

$$BEC = 10.98$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	De _t	RSD
1	☐	0.000	0.000	1852.36	0.0118	P	6.4
2	☐	1.000	1.038	6354.80	0.0408	P	3.6
3	☐	500.000	562.533	2371788.70	15.7257	A	1.0
4	☐	1250.000	1350.690	5670501.16	37.7422	A	0.3
5	☐	2500.000	2641.730	11114058.31	73.8064	A	2.2
6	☐	5000.000	5192.102	21773544.12	145.0491	A	1.4
7	☐	10000.000	9852.803	42870832.14	275.2422	A	0.9
8	☐			21290.38	0.1470	P	1.0

$$y = 0.0279 * x + 0.0118$$

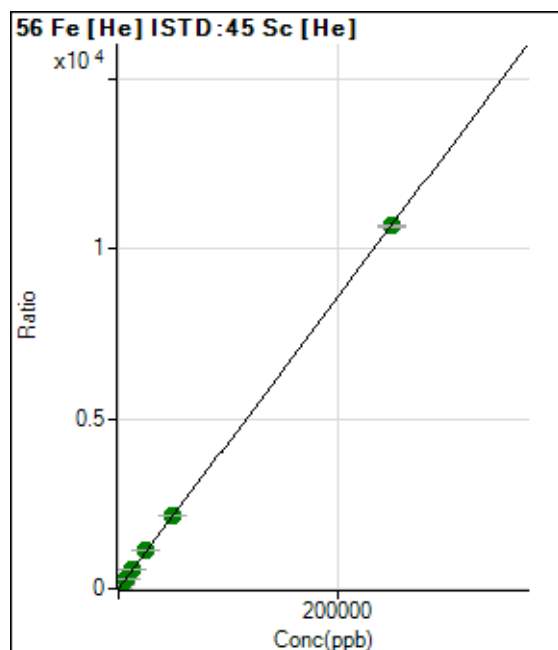
$$R = 0.9996$$

$$DL = 0.08019$$

$$BEC = 0.4207$$

Weight: <None>

Min Conc: 0



	R _{ct}	Conc.	Calc Conc.	CPS	Ratio	De _t	RSD
1	☐	0.000	0.000	59941.81	0.3804	P	1.8
2	☐	50.000	60.500	462678.21	2.9673	P	0.6
3	☐	2500.000	2870.240	18568300.00	123.1103	A	0.4
4	☐	6250.000	6991.042	44969151.00	299.3136	A	0.5
5	☐	12500.000	13552.814	87326210.92	579.8915	A	0.9
6	☐	25000.000	26755.028	171786317.44	1,144.4111	A	1.6
7	☐	50000.000	50457.270	336104023.88	2,157.9062	A	0.5
8	☐	250000.00	249658.17	1546423923.6	10,675.629	A	0.6

$$y = 0.0428 * x + 0.3804$$

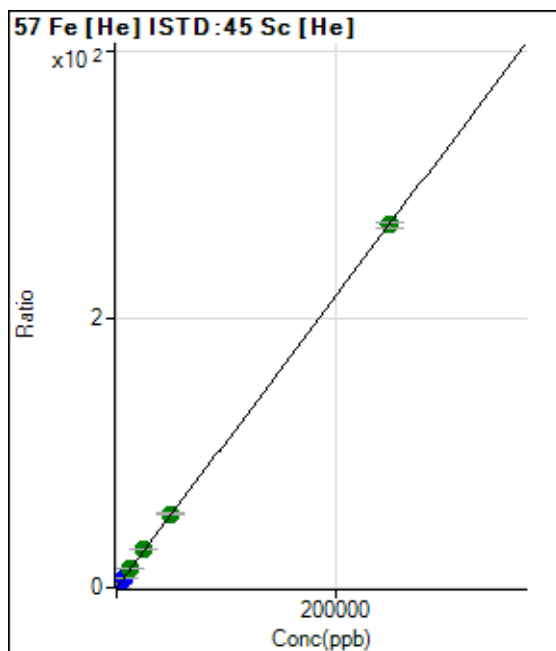
$$R = 1.0000$$

$$DL = 0.4746$$

$$BEC = 8.896$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	1470.09	0.0093	P	2.5
2	☐	50.000	60.115	11601.47	0.0744	P	2.0
3	☐	2500.000	2826.922	462928.11	3.0693	P	0.7
4	☐	6250.000	6898.306	1123232.06	7.4763	P	0.7
5	☐	12500.000	13709.342	2236148.37	14.8488	A	1.1
6	☐	25000.000	26677.467	4336009.45	28.8859	A	1.7
7	☐	50000.000	50761.818	8559414.32	54.9556	A	0.8
8	☐	250000.00	249599.94	39136465.53	270.1845	A	1.5

$$y = 0.0011 * x + 0.0093$$

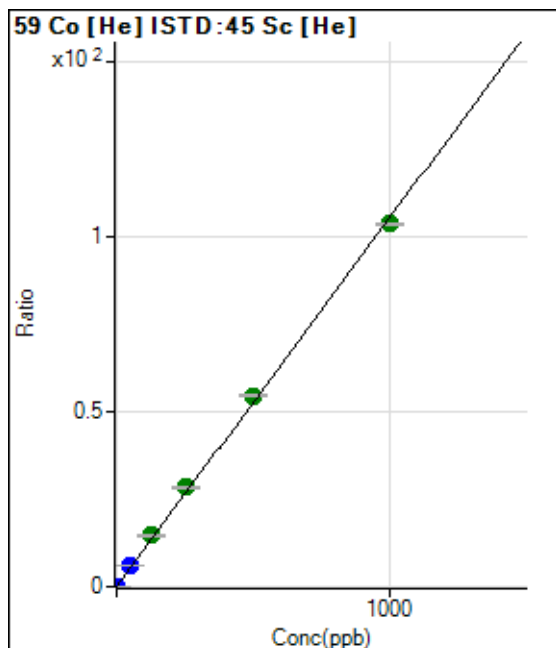
R = 1.0000

DL = 0.6447

BEC = 8.619

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	382.23	0.0024	P	4.1
2	☐	1.000	1.231	20598.34	0.1321	P	1.7
3	☐	50.000	55.426	880880.18	5.8405	P	1.0
4	☐	125.000	138.745	2196165.99	14.6166	A	1.5
5	☐	250.000	268.697	4262360.01	28.3045	A	1.3
6	☐	500.000	518.361	8196252.24	54.6018	A	1.6
7	☐	1000.000	984.155	16146094.76	103.6643	A	0.2
8	☐			32293.33	0.2229	P	1.7

$$y = 0.1053 * x + 0.0024$$

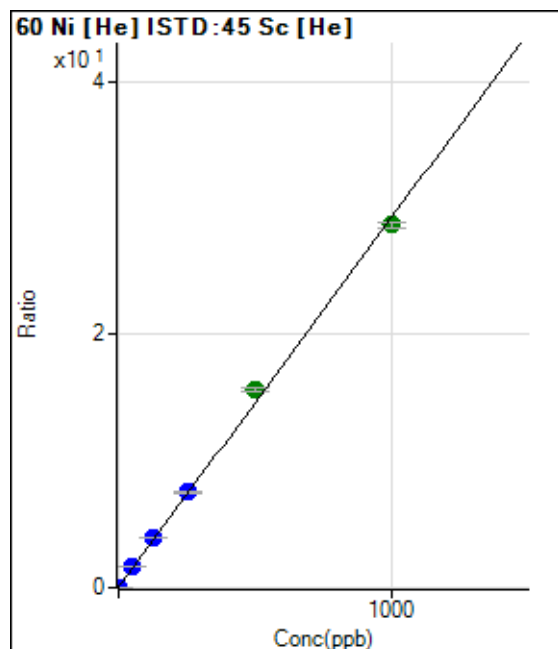
R = 0.9995

DL = 0.002855

BEC = 0.02302

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	4122.86	0.0262	P	0.2
2	☐	1.000	1.180	9454.33	0.0606	P	2.1
3	☐	50.000	55.716	249520.57	1.6544	P	1.0
4	☐	125.000	134.128	592837.48	3.9459	P	0.5
5	☐	250.000	256.978	1134865.16	7.5361	P	0.9
6	☐	500.000	532.958	2341757.38	15.6013	A	2.2
7	☐	1000.000	980.350	4466306.11	28.6758	A	1.4
8	☐			33774.52	0.2332	P	0.8

$$y = 0.0292 * x + 0.0262$$

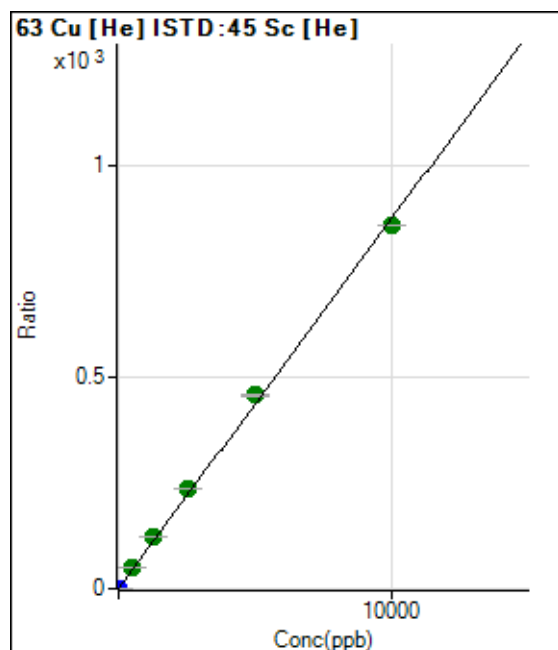
$$R = 0.9991$$

$$DL = 0.005656$$

$$BEC = 0.8952$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	3132.60	0.0199	P	3.6
2	☐	2.000	2.258	33907.07	0.2175	P	0.6
3	☐	500.000	579.306	7648280.72	50.7099	A	0.5
4	☐	1250.000	1408.463	18518675.83	123.2622	A	1.0
5	☐	2500.000	2706.106	35661151.69	236.8076	A	0.7
6	☐	5000.000	5229.334	68690397.31	457.5932	A	1.4
7	☐	10000.000	9810.033	133700901.34	858.4102	A	0.1
8	☐			96545.05	0.6665	P	1.1

$$y = 0.0875 * x + 0.0199$$

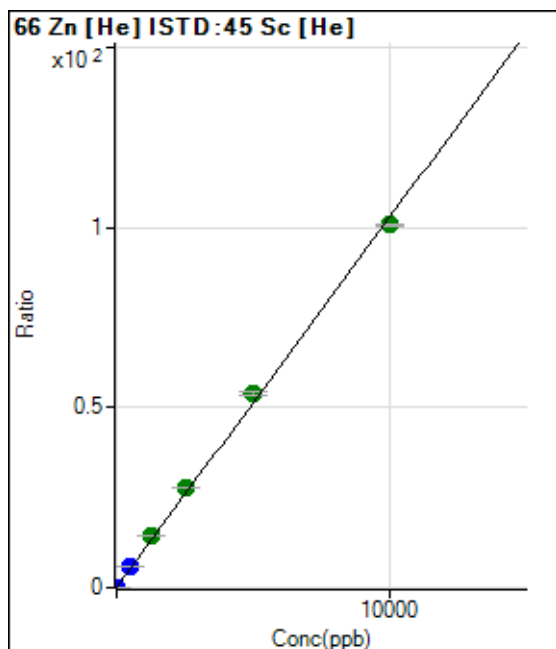
$$R = 0.9993$$

$$DL = 0.02476$$

$$BEC = 0.2271$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	5128.76	0.0325	P	2.8
2	☐	2.000	4.837	12826.99	0.0823	P	1.1
3	☐	500.000	568.819	886810.03	5.8799	P	0.9
4	☐	1250.000	1416.729	2192899.92	14.5961	A	1.0
5	☐	2500.000	2706.191	4194305.46	27.8515	A	0.2
6	☐	5000.000	5245.070	8097890.71	53.9505	A	2.6
7	☐	10000.000	9801.635	15698572.40	100.7908	A	0.7
8	☐			29177.82	0.2014	P	0.8

$$y = 0.0103 * x + 0.0325$$

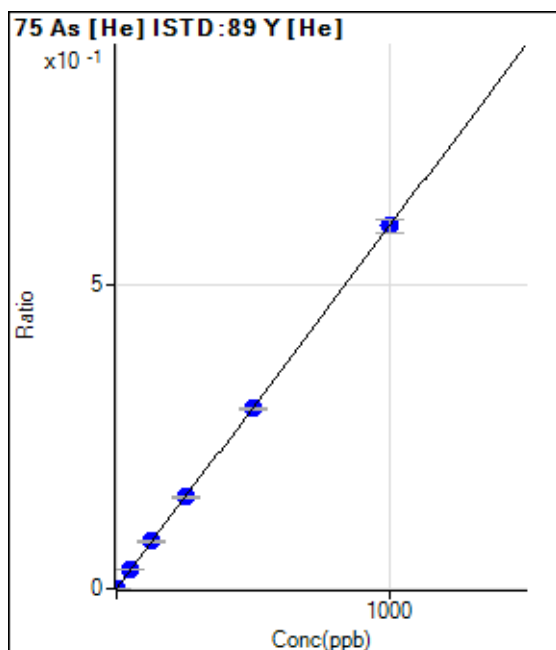
$$R = 0.9992$$

$$DL = 0.2621$$

$$BEC = 3.166$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	12.22	0.0000	P	16.4
2	☐	1.000	1.197	1133.39	0.0007	P	3.7
3	☐	50.000	51.726	46950.10	0.0308	P	1.7
4	☐	125.000	130.348	115266.47	0.0777	P	2.7
5	☐	250.000	251.938	225331.45	0.1502	P	0.9
6	☐	500.000	497.325	441346.06	0.2965	P	1.3
7	☐	1000.000	1000.098	867093.01	0.5962	P	4.0
8	☐			407.79	0.0003	P	9.5

$$y = 5.9617E-004 * x + 7.7842E-006$$

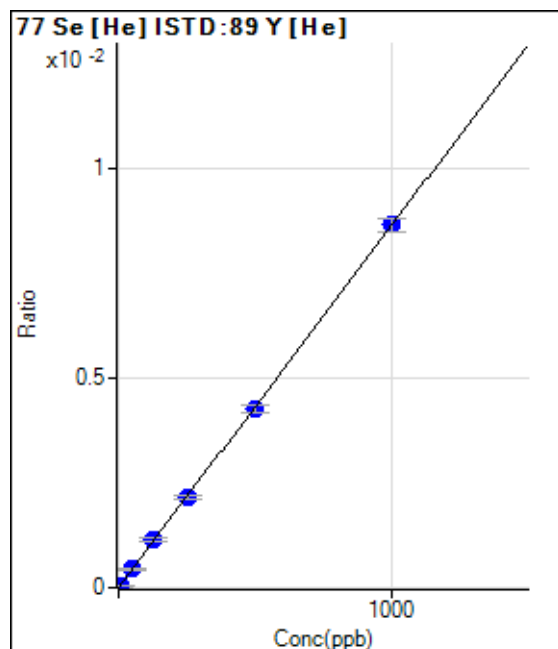
$$R = 1.0000$$

$$DL = 0.006436$$

$$BEC = 0.01306$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	6.67	0.0000	P	49.5
2	☐	5.000	5.818	85.55	0.0001	P	17.8
3	☐	50.000	50.028	663.36	0.0004	P	8.1
4	☐	125.000	132.319	1699.01	0.0011	P	4.7
5	☐	250.000	248.608	3223.73	0.0021	P	2.9
6	☐	500.000	495.284	6367.05	0.0043	P	4.5
7	☐	1000.000	1001.786	12579.05	0.0086	P	3.4
8	☐			5.55	0.0000	P	125.0

$$y = 8.6273E-006 * x + 4.2376E-006$$

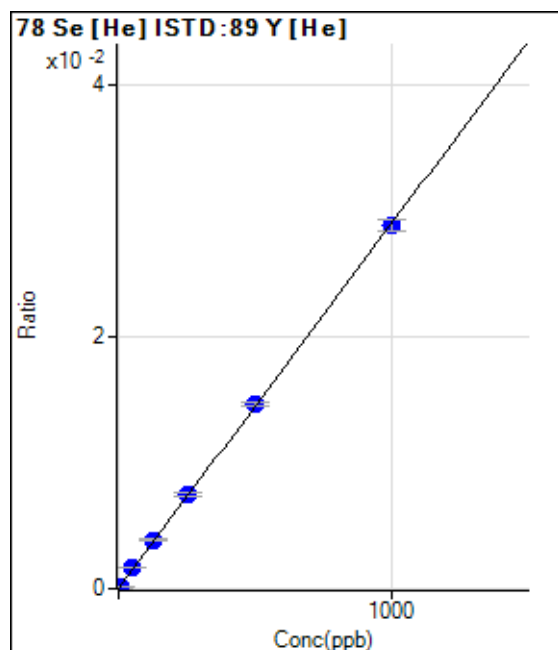
$$R = 1.0000$$

$$DL = 0.7288$$

$$BEC = 0.4912$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	27.78	0.0000	P	34.0
2	☐	5.000	6.376	317.78	0.0002	P	3.0
3	☐	50.000	56.165	2503.58	0.0016	P	3.1
4	☐	125.000	133.620	5763.46	0.0039	P	5.8
5	☐	250.000	257.147	11197.87	0.0075	P	2.5
6	☐	500.000	506.094	21844.83	0.0147	P	1.5
7	☐	1000.000	993.774	41891.04	0.0288	P	3.2
8	☐			48.89	0.0000	P	14.5

$$y = 2.8961E-005 * x + 1.7645E-005$$

$$R = 0.9999$$

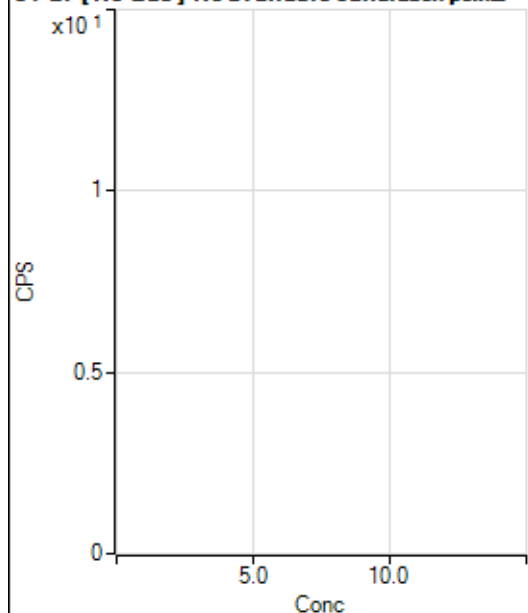
$$DL = 0.6218$$

$$BEC = 0.6092$$

Weight: <None>

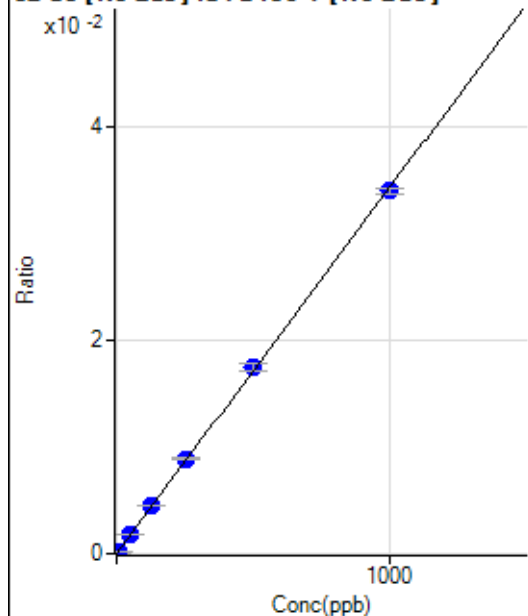
Min Conc: 0

81 Br [No Gas] No available calibration points



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			30408.64		P	3.0
2	☐			29503.39		P	1.7
3	☐			29295.09		P	1.3
4	☐			28965.54		P	1.6
5	☐			29419.82		P	3.5
6	☐			29516.65		P	0.8
7	☐			29900.81		P	0.8
8	☐			28709.47		P	1.1

82 Se [No Gas] ISTD:89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	-16.67	0.0000	P	-409.
2	☐	5.000	5.818	3376.09	0.0002	P	2.3
3	☐	50.000	54.189	31678.96	0.0019	P	0.9
4	☐	125.000	131.646	75956.52	0.0045	P	1.5
5	☐	250.000	258.916	148667.32	0.0089	P	1.8
6	☐	500.000	510.790	285630.53	0.0175	P	3.6
7	☐	1000.000	991.332	554852.69	0.0340	P	1.5
8	☐			376.69	0.0000	P	24.0

$$y = 3.4335E-005 * x - 9.4614E-007$$

$$R = 0.9999$$

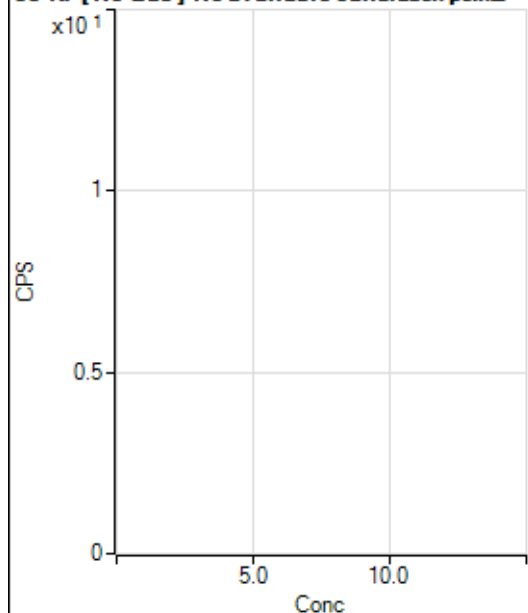
$$DL = 0.3381$$

$$BEC = -0.02756$$

Weight: <None>

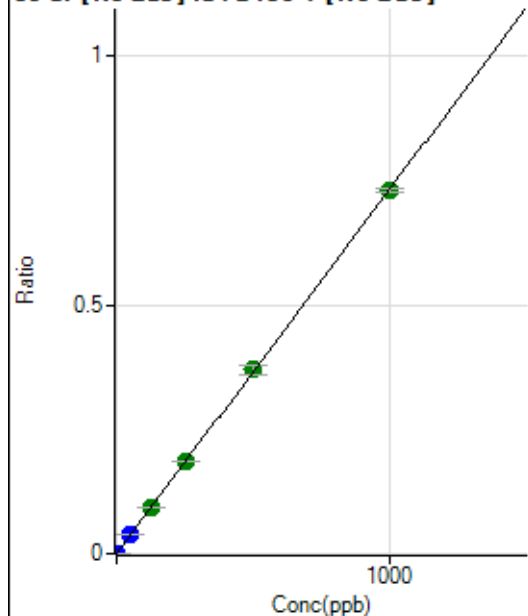
Min Conc: 0

83 Kr [No Gas] No available calibration points



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			420.01		P	17.4
2	☐			408.90		P	13.2
3	☐			406.68		P	2.8
4	☐			442.23		P	7.4
5	☐			405.57		P	17.6
6	☐			430.01		P	13.6
7	☐			460.01		P	9.4
8	☐			491.13		P	7.9

86 Sr [No Gas] ISTD : 89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	824.48	0.0000	P	6.7
2	☐	1.000	1.115	14640.00	0.0009	P	1.4
3	☐	50.000	50.320	627751.36	0.0369	P	0.7
4	☐	125.000	128.614	1581884.89	0.0941	A	0.7
5	☐	250.000	252.348	3087727.21	0.1846	A	0.2
6	☐	500.000	504.907	6013900.33	0.3693	A	4.5
7	☐	1000.000	996.492	11882444.55	0.7289	A	1.0
8	☐			34998.14	0.0024	P	0.6

$$y = 7.3138E-004 * x + 4.7222E-005$$

$$R = 1.0000$$

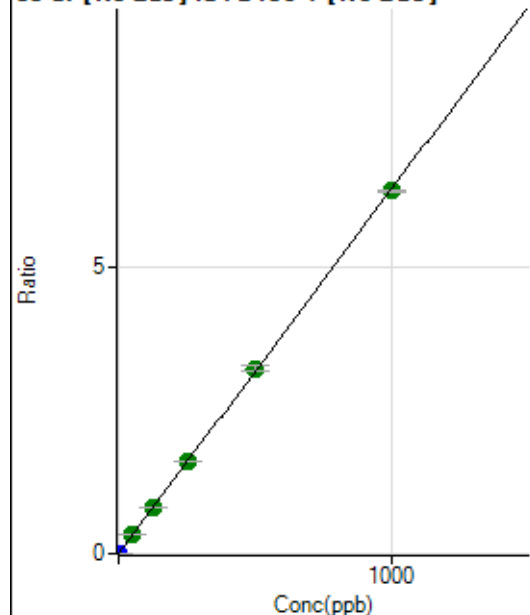
$$DL = 0.01304$$

$$BEC = 0.06456$$

Weight: <None>

Min Conc: 0

88 Sr [No Gas] ISTD:89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	1819.03	0.0001	P	6.2
2	☐	1.000	1.093	119559.84	0.0070	P	0.4
3	☐	50.000	51.215	5537286.37	0.3251	A	0.9
4	☐	125.000	126.665	13509955.35	0.8038	A	0.4
5	☐	250.000	251.629	26704670.43	1.5967	A	0.8
6	☐	500.000	508.398	52535174.77	3.2258	A	3.9
7	☐	1000.000	995.125	102939007.36	6.3141	A	0.6
8	☐			299975.06	0.0203	P	0.9

$$y = 0.0063 * x + 1.0421E-004$$

$$R = 0.9999$$

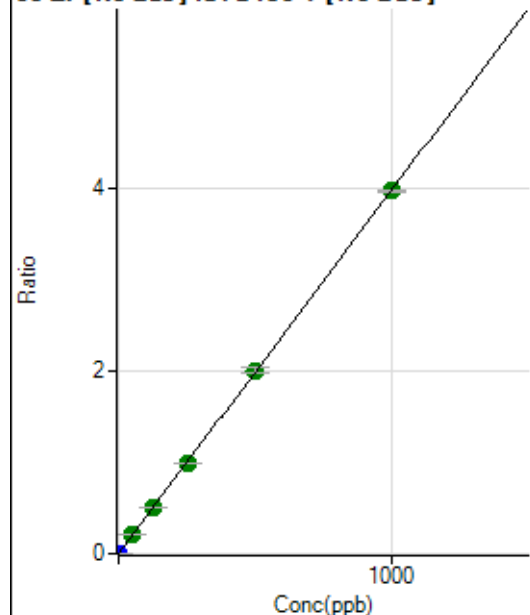
$$DL = 0.00305$$

$$BEC = 0.01642$$

Weight: <None>

Min Conc: 0

90 Zr [No Gas] ISTD:89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	1005.60	0.0001	P	15.5
2	☐	1.000	1.056	72213.40	0.0043	P	1.1
3	☐	50.000	50.987	3452803.80	0.2027	A	2.0
4	☐	125.000	125.213	8365544.81	0.4977	A	0.4
5	☐	250.000	247.851	16476294.76	0.9851	A	1.2
6	☐	500.000	504.002	32626052.85	2.0032	A	3.5
7	☐	1000.000	998.460	64702978.48	3.9684	A	0.5
8	☐			27494.91	0.0019	P	2.5

$$y = 0.0040 * x + 5.7649E-005$$

$$R = 1.0000$$

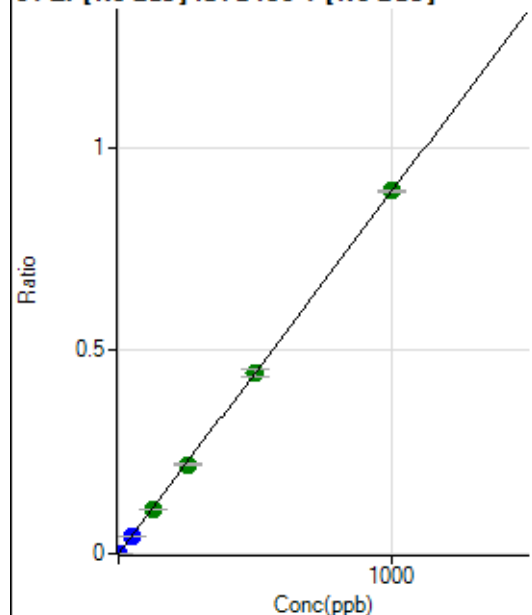
$$DL = 0.006725$$

$$BEC = 0.01451$$

Weight: <None>

Min Conc: 0

91 Zr [No Gas] ISTD:89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	158.89	0.0000	P	17.5
2	☐	1.000	1.038	15839.12	0.0009	P	1.8
3	☐	50.000	49.167	745885.03	0.0438	P	1.7
4	☐	125.000	123.971	1855520.87	0.1104	A	1.0
5	☐	250.000	246.019	3663905.16	0.2191	A	1.3
6	☐	500.000	498.179	7222766.42	0.4436	A	4.5
7	☐	1000.000	1002.076	14547560.76	0.8923	A	0.9
8	☐			6132.51	0.0004	P	2.0

$$y = 8.9041\text{E-}004 * x + 9.1024\text{E-}006$$

$$R = 1.0000$$

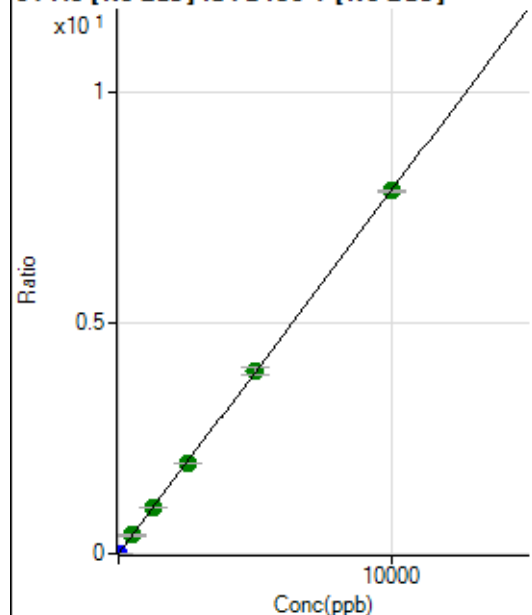
$$DL = 0.005358$$

$$BEC = 0.01022$$

Weight: <None>

Min Conc: 0

94 Mo [No Gas] ISTD:89 Y [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	640.02	0.0000	P	2.1
2	☐	5.000	6.391	85843.76	0.0051	P	2.5
3	☐	500.000	506.573	6779061.43	0.3979	A	1.6
4	☐	1250.000	1256.604	16590982.81	0.9871	A	1.1
5	☐	2500.000	2480.194	32583955.35	1.9482	A	1.4
6	☐	5000.000	5033.439	64383049.60	3.9538	A	4.4
7	☐	10000.000	9987.077	127902946.98	7.8449	A	0.5
8	☐			22597.34	0.0015	P	2.1

$$y = 7.8550\text{E-}004 * x + 3.6692\text{E-}005$$

$$R = 1.0000$$

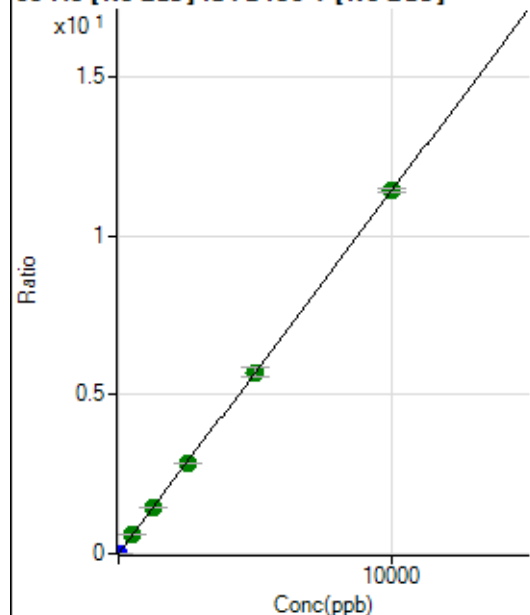
$$DL = 0.002955$$

$$BEC = 0.04671$$

Weight: <None>

Min Conc: 0

95 Mo [No Gas] ISTD:89 Y [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	685.58	0.0000	P	0.8
2	☐	5.000	5.336	104022.21	0.0061	P	1.0
3	☐	500.000	507.621	9867286.10	0.5792	A	0.9
4	☐	1250.000	1258.622	24138432.70	1.4361	A	1.0
5	☐	2500.000	2480.557	47337924.85	2.8304	A	1.2
6	☐	5000.000	5000.865	92900493.06	5.7060	A	4.9
7	☐	10000.000	10002.970	186066137.22	11.4134	A	1.1
8	☐			21490.03	0.0015	P	2.2

$$y = 0.0011 * x + 3.9313E-005$$

$$R = 1.0000$$

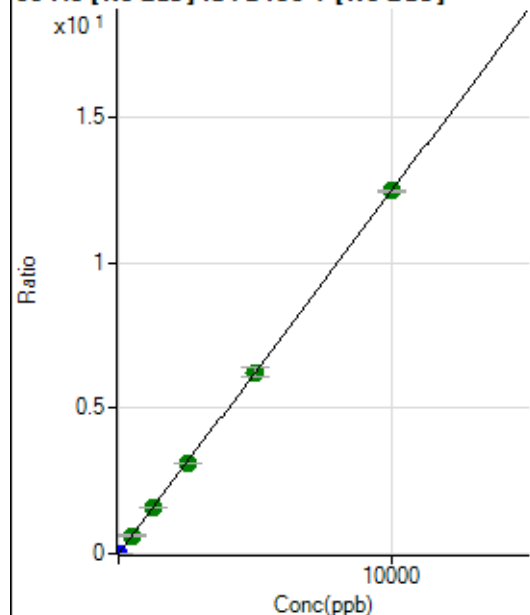
$$DL = 0.0008053$$

$$BEC = 0.03445$$

Weight: <None>

Min Conc: 0

96 Mo [No Gas] ISTD:89 Y [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	748.92	0.0000	P	4.2
2	☐	5.000	5.389	114845.60	0.0068	P	1.8
3	☐	500.000	502.189	10672128.38	0.6265	A	2.0
4	☐	1250.000	1262.693	26476572.94	1.5752	A	0.9
5	☐	2500.000	2477.099	51685733.12	3.0902	A	0.3
6	☐	5000.000	5006.254	101686290.71	6.2453	A	4.7
7	☐	10000.000	10000.902	203393708.08	12.4761	A	0.9
8	☐			38005.38	0.0026	P	2.5

$$y = 0.0012 * x + 4.2981E-005$$

$$R = 1.0000$$

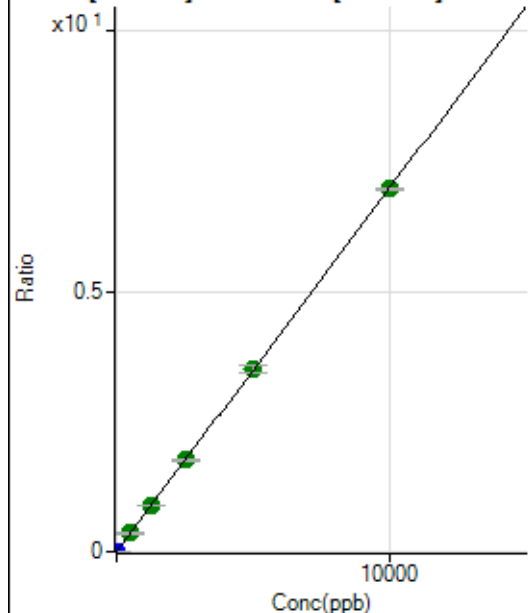
$$DL = 0.004389$$

$$BEC = 0.03445$$

Weight: <None>

Min Conc: 0

97 Mo [No Gas] ISTD:89 Y [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	452.24	0.0000	P	6.7
2	☐	5.000	5.400	64490.98	0.0038	P	2.0
3	☐	500.000	505.081	6012525.75	0.3530	A	1.3
4	☐	1250.000	1273.853	14961687.83	0.8902	A	0.9
5	☐	2500.000	2512.642	29366305.67	1.7558	A	1.3
6	☐	5000.000	5029.557	57234526.93	3.5145	A	4.0
7	☐	10000.000	9978.825	113688541.64	6.9730	A	0.5
8	☐			12983.96	0.0009	P	5.7

$$y = 6.9877E-004 * x + 2.5971E-005$$

R = 1.0000

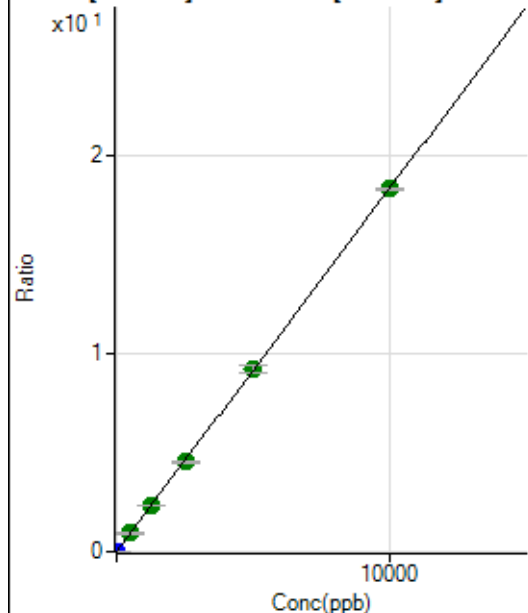
DL = 0.007454

BEC = 0.03717

Weight: <None>

Min Conc: 0

98 Mo [No Gas] ISTD:89 Y [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	954.49	0.0001	P	6.4
2	☐	5.000	5.340	167182.07	0.0098	P	1.6
3	☐	500.000	503.216	15721847.13	0.9229	A	1.2
4	☐	1250.000	1261.702	38893233.87	2.3140	A	0.5
5	☐	2500.000	2479.447	76055373.31	4.5473	A	1.5
6	☐	5000.000	5025.292	150049172.21	9.2163	A	4.9
7	☐	10000.000	9990.868	298721197.77	18.3229	A	0.6
8	☐			32606.14	0.0022	P	4.3

$$y = 0.0018 * x + 5.4797E-005$$

R = 1.0000

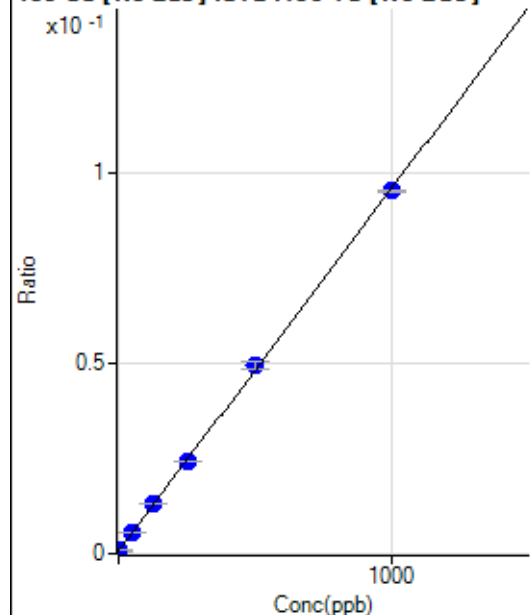
DL = 0.005723

BEC = 0.02988

Weight: <None>

Min Conc: 0

106 Cd [No Gas] ISTD :159 Tb [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	7552.14	0.0007	P	2.2
2	☐	1.000	0.998	8451.56	0.0008	P	1.8
3	☐	50.000	53.676	64333.34	0.0058	P	0.7
4	☐	125.000	130.876	143862.87	0.0132	P	1.3
5	☐	250.000	249.145	271188.03	0.0244	P	0.5
6	☐	500.000	510.730	523172.63	0.0494	P	4.0
7	☐	1000.000	993.930	1017944.63	0.0955	P	0.6
8	☐			6329.28	0.0007	P	2.1

$$y = 9.5396E-005 * x + 6.7277E-004$$

R = 0.9999

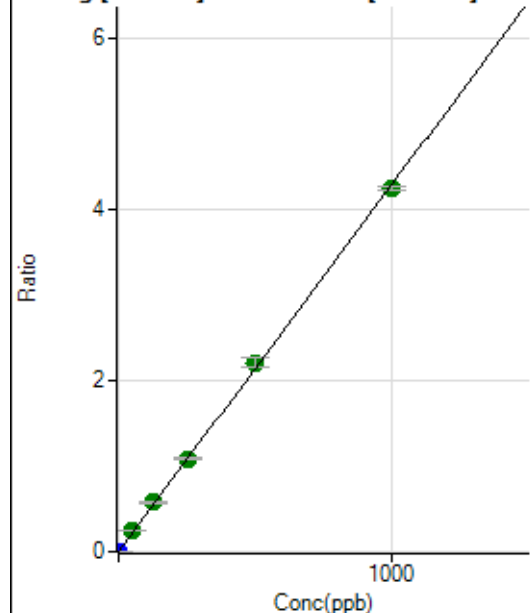
DL = 0.4589

BEC = 7.052

Weight: <None>

Min Conc: 0

107 Ag [No Gas] ISTD :159 Tb [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	146.67	0.0000	P	14.2
2	☐	1.000	1.103	52212.79	0.0047	P	2.4
3	☐	50.000	55.361	2636723.74	0.2374	A	0.9
4	☐	125.000	134.328	6298920.39	0.5761	A	1.6
5	☐	250.000	252.692	12024485.24	1.0837	A	1.6
6	☐	500.000	516.559	23463527.71	2.2154	A	4.2
7	☐	1000.000	989.613	45244392.10	4.2442	A	1.0
8	☐			3922.83	0.0004	P	10.6

$$y = 0.0043 * x + 1.3032E-005$$

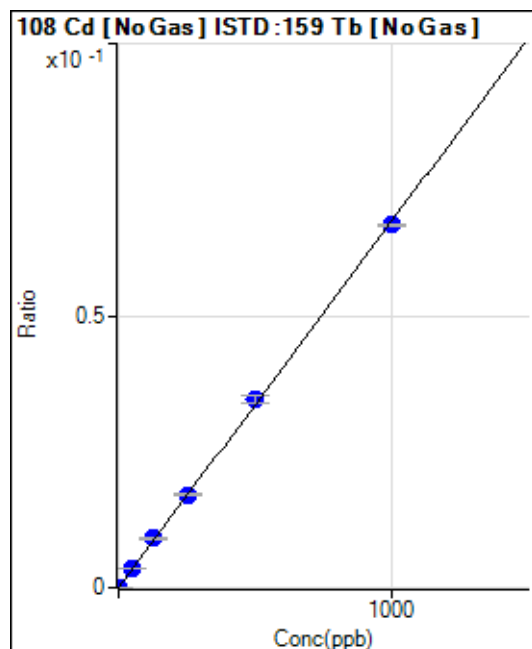
R = 0.9998

DL = 0.001299

BEC = 0.003039

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	22.22	0.0000	P	69.4
2	☐	1.000	1.137	863.37	0.0001	P	12.8
3	☐	50.000	53.877	40276.40	0.0036	P	0.5
4	☐	125.000	134.003	98604.91	0.0090	P	0.3
5	☐	250.000	252.950	188852.68	0.0170	P	1.9
6	☐	500.000	514.138	366390.35	0.0346	P	4.3
7	☐	1000.000	990.874	710716.59	0.0667	P	0.5
8	☐			256.67	0.0000	P	17.7

$$y = 6.7282\text{E-}005 * x + 2.0117\text{E-}006$$

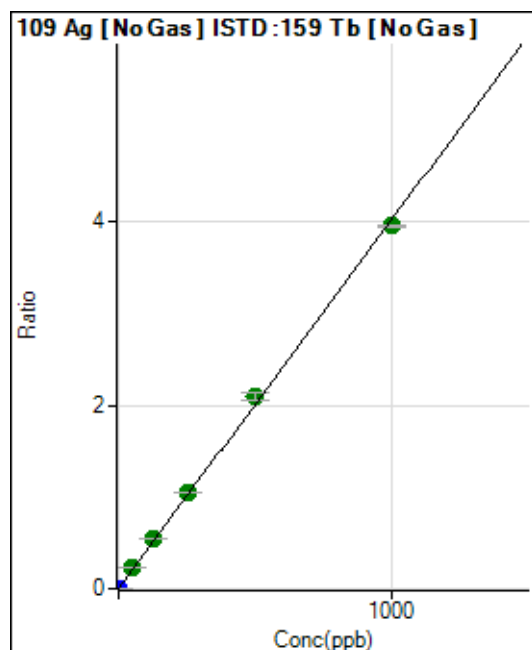
$$R = 0.9998$$

$$DL = 0.06223$$

$$BEC = 0.0299$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	94.44	0.0000	P	9.2
2	☐	1.000	1.117	49494.08	0.0045	P	1.9
3	☐	50.000	55.369	2471611.55	0.2226	A	0.5
4	☐	125.000	136.115	5982421.65	0.5471	A	0.5
5	☐	250.000	260.626	11624112.88	1.0476	A	0.9
6	☐	500.000	523.544	22290711.89	2.1045	A	3.9
7	☐	1000.000	983.913	42160032.70	3.9550	A	0.5
8	☐			3741.67	0.0004	P	9.1

$$y = 0.0040 * x + 8.4116\text{E-}006$$

$$R = 0.9995$$

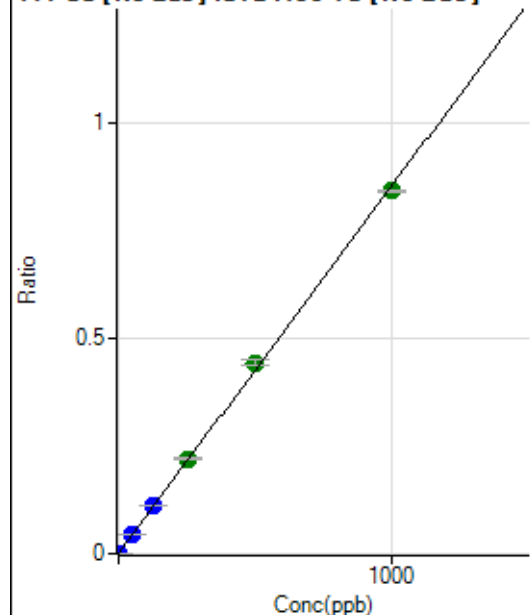
$$DL = 0.0005795$$

$$BEC = 0.002093$$

Weight: <None>

Min Conc: 0

111 Cd [No Gas] ISTD :159 Tb [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	5302.05	0.0005	P	2.0
2	☐	1.000	1.163	16114.94	0.0015	P	2.0
3	☐	50.000	52.682	504189.23	0.0454	P	0.1
4	☐	125.000	129.745	1215105.71	0.1111	P	0.0
5	☐	250.000	257.101	2438198.20	0.2197	A	1.6
6	☐	500.000	519.903	4701850.62	0.4439	A	3.8
7	☐	1000.000	987.546	8983392.14	0.8427	A	0.6
8	☐			5466.45	0.0006	P	1.1

$$y = 8.5287E-004 * x + 4.7233E-004$$

$$R = 0.9997$$

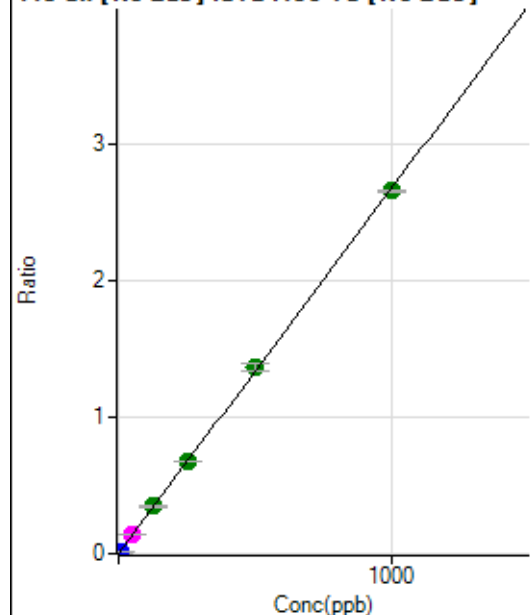
$$DL = 0.03338$$

$$BEC = 0.5538$$

Weight: <None>

Min Conc: 0

118 Sn [No Gas] ISTD :159 Tb [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	5996.83	0.0005	P	34.1
2	☐	5.000	5.574	169918.04	0.0154	P	2.0
3	☐	50.000	51.724	1541787.36	0.1388	M	2.3
4	☐	125.000	129.115	3780828.69	0.3458	A	0.7
5	☐	250.000	251.332	7463231.83	0.6726	A	1.1
6	☐	500.000	511.416	14489227.84	1.3680	A	4.0
7	☐	1000.000	993.356	28319990.69	2.6566	A	0.2
8	☐			10152.81	0.0011	P	3.3

$$y = 0.0027 * x + 5.3563E-004$$

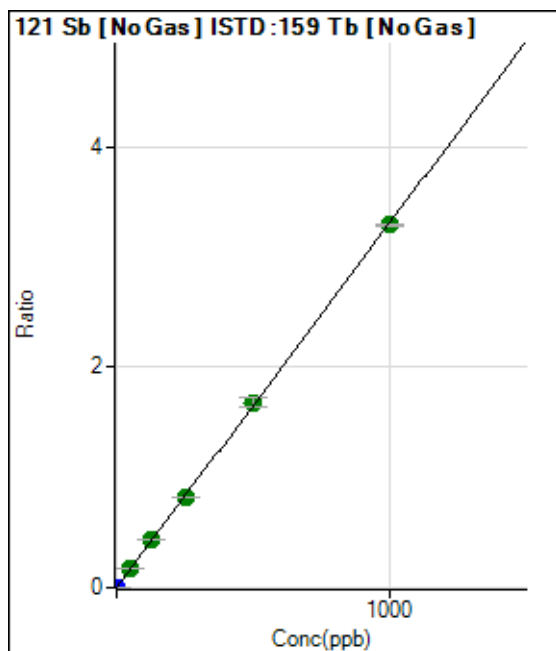
$$R = 0.9999$$

$$DL = 0.2047$$

$$BEC = 0.2003$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	98.89	0.0000	P	32.3
2	☐	2.000	2.201	80204.42	0.0073	P	1.8
3	☐	50.000	52.966	1945365.09	0.1752	A	0.5
4	☐	125.000	129.812	4694488.12	0.4293	A	0.3
5	☐	250.000	246.793	9056980.01	0.8162	A	0.9
6	☐	500.000	508.986	17828000.70	1.6834	A	4.4
7	☐	1000.000	995.559	35100147.53	3.2926	A	0.4
8	☐			14568.97	0.0015	P	3.4

$$y = 0.0033 * x + 8.8154E-006$$

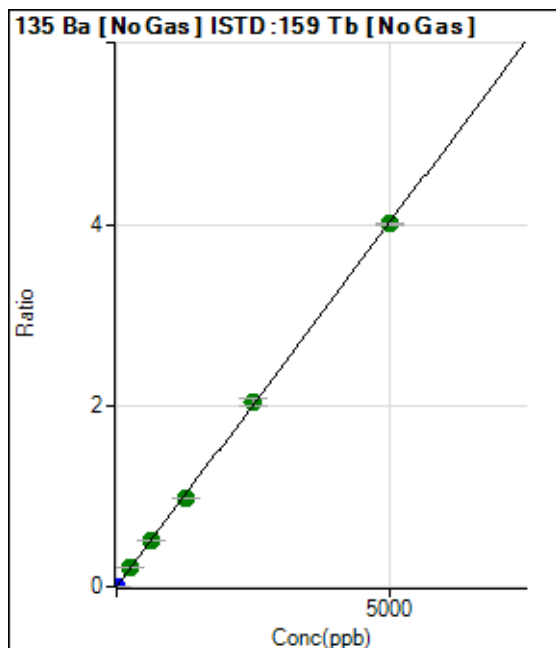
$$R = 0.9999$$

$$DL = 0.00258$$

$$BEC = 0.002665$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	163.34	0.0000	P	13.1
2	☐	10.000	10.803	95718.48	0.0087	P	0.7
3	☐	250.000	260.947	2328904.63	0.2097	A	0.9
4	☐	625.000	641.698	5638979.36	0.5157	A	1.4
5	☐	1250.000	1220.840	10886746.09	0.9812	A	0.8
6	☐	2500.000	2543.971	21652976.07	2.0445	A	4.3
7	☐	5000.000	4982.668	42687785.20	4.0044	A	0.3
8	☐			14765.93	0.0015	P	0.3

$$y = 8.0366E-004 * x + 1.4517E-005$$

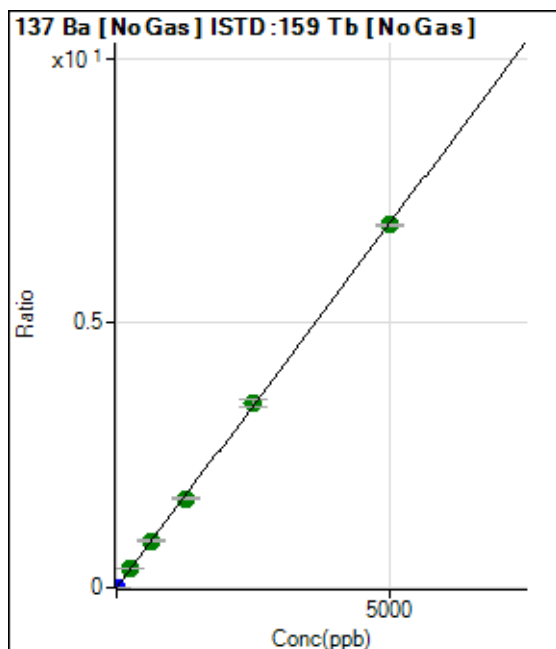
$$R = 0.9999$$

$$DL = 0.007092$$

$$BEC = 0.01806$$

Weight: <None>

Min Conc: 0



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	374.45	0.0000	P	10.9
2	☐	10.000	10.854	164556.04	0.0150	P	1.3
3	☐	250.000	259.615	3962921.02	0.3569	A	1.4
4	☐	625.000	642.072	9649844.51	0.8826	A	1.6
5	☐	1250.000	1225.254	18687084.58	1.6842	A	0.9
6	☐	2500.000	2541.325	36997499.17	3.4931	A	4.1
7	☐	5000.000	4982.907	73012890.58	6.8491	A	0.2
8	☐			25632.12	0.0027	P	2.4

$$y = 0.0014 * x + 3.3417E-005$$

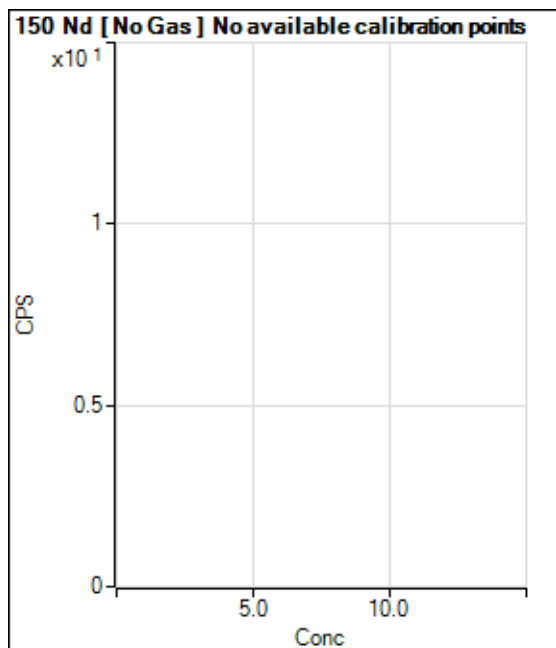
R = 0.9999

DL = 0.007965

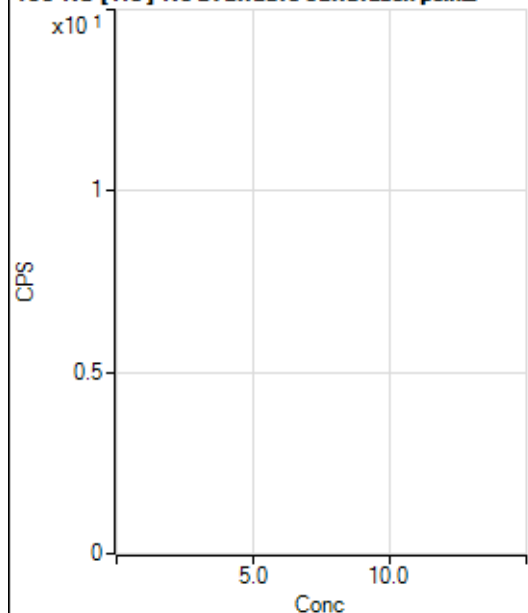
BEC = 0.02431

Weight: <None>

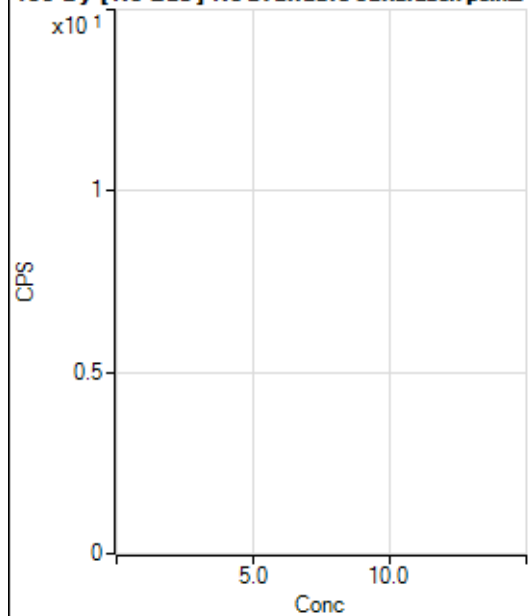
Min Conc: 0



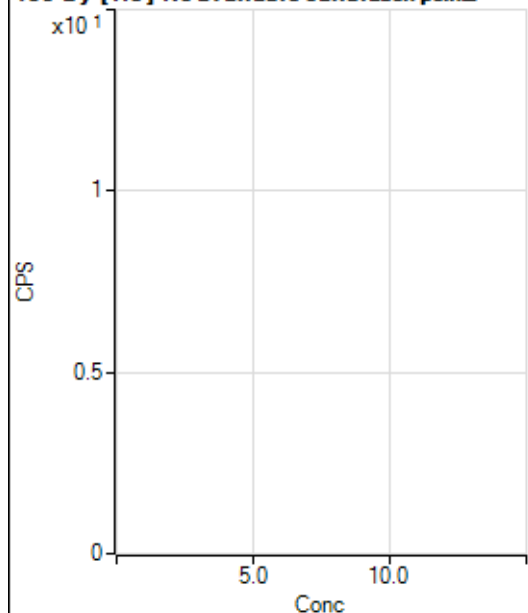
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			8.89		P	21.6
2	☐			26.67		P	25.0
3	☐			198.89		P	7.7
4	☐			395.57		P	9.0
5	☐			751.14		P	7.0
6	☐			1502.32		P	3.2
7	☐			3022.60		P	3.6
8	☐			578.91		P	7.4

150 Nd [He] No available calibration points

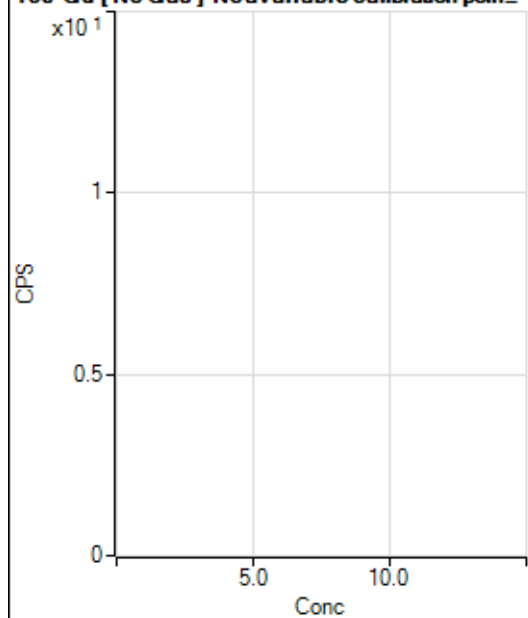
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			4.44		P	43.4
2	☐			5.56		P	91.6
3	☐			12.22		P	68.7
4	☐			33.33		P	36.1
5	☐			41.11		P	40.8
6	☐			98.89		P	9.7
7	☐			171.11		P	10.7
8	☐			175.56		P	17.6

156 Dy [No Gas] No available calibration points

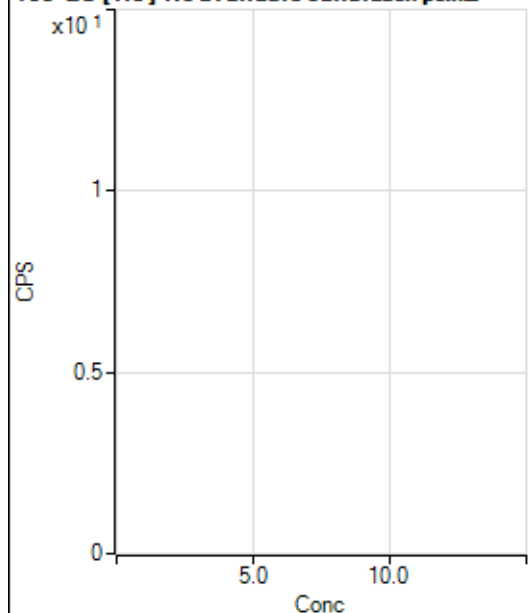
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			21.11		P	36.5
2	☐			15.56		P	12.4
3	☐			62.22		P	21.7
4	☐			132.22		P	2.9
5	☐			232.23		P	5.0
6	☐			421.12		P	17.6
7	☐			900.04		P	8.3
8	☐			1070.06		P	5.1

156 Dy [He] No available calibration points

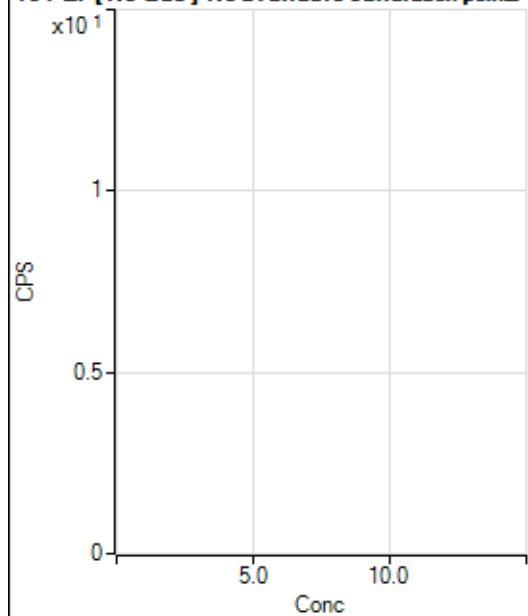
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			2.22		P	86.6
2	☐			5.55		P	69.3
3	☐			11.11		P	34.6
4	☐			23.33		P	37.8
5	☐			54.45		P	12.7
6	☐			78.89		P	12.9
7	☐			165.56		P	13.7
8	☐			354.45		P	13.6

160 Gd [No Gas] Noavailable calibration poin_

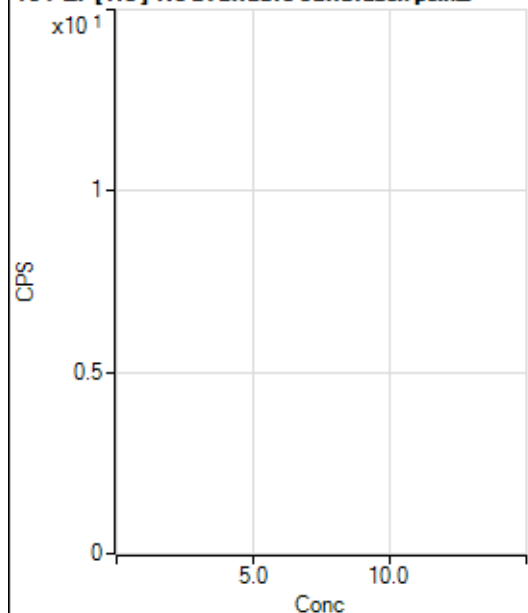
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			133.34		P	22.2
2	☐			145.56		P	10.8
3	☐			155.56		P	14.6
4	☐			213.34		P	3.1
5	☐			242.23		P	6.8
6	☐			320.01		P	18.1
7	☐			483.35		P	12.0
8	☐			977.83		P	7.4

160 Gd [He] No available calibration points

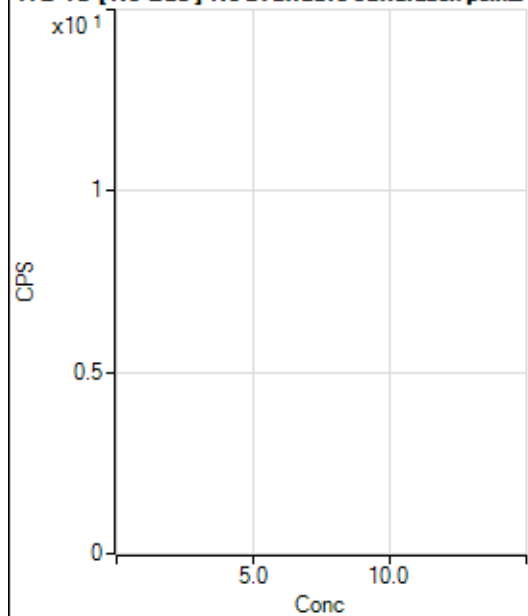
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			41.11		P	12.4
2	☐			32.22		P	46.6
3	☐			33.33		P	0.0
4	☐			43.33		P	20.3
5	☐			60.00		P	9.6
6	☐			98.89		P	1.9
7	☐			193.34		P	13.7
8	☐			425.56		P	7.1

164 Er [No Gas] No available calibration points

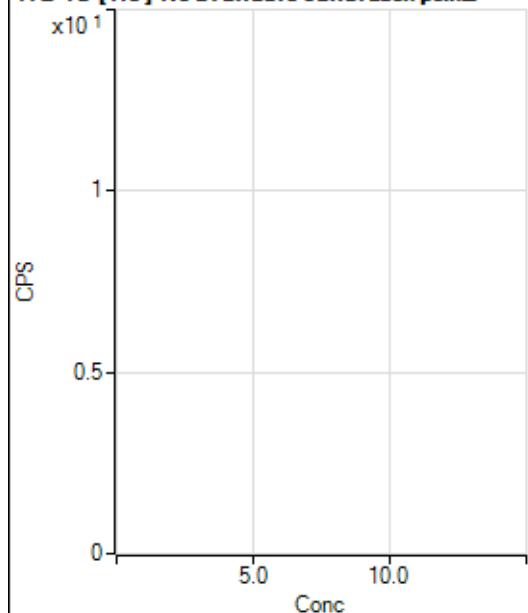
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			72.22		P	13.3
2	☐			67.78		P	32.8
3	☐			106.67		P	20.5
4	☐			147.78		P	26.0
5	☐			230.00		P	17.6
6	☐			327.78		P	11.4
7	☐			574.47		P	13.5
8	☐			1235.63		P	9.1

164 Er [He] No available calibration points

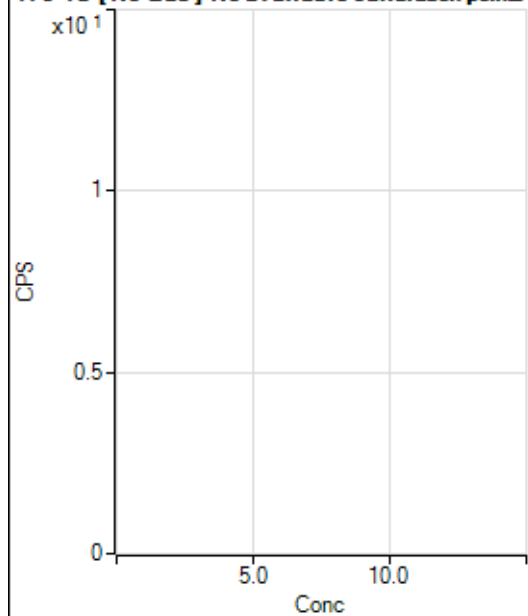
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			37.78		P	22.2
2	☐			15.56		P	32.7
3	☐			27.78		P	30.2
4	☐			37.78		P	48.6
5	☐			77.78		P	15.0
6	☐			116.67		P	15.9
7	☐			207.78		P	7.2
8	☐			480.01		P	16.0

172 Yb [No Gas] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			47.78		P	14.5
2	☐			51.11		P	3.8
3	☐			98.89		P	5.1
4	☐			142.23		P	8.9
5	☐			191.11		P	9.9
6	☐			332.23		P	15.0
7	☐			706.69		P	13.5
8	☐			1993.51		P	3.2

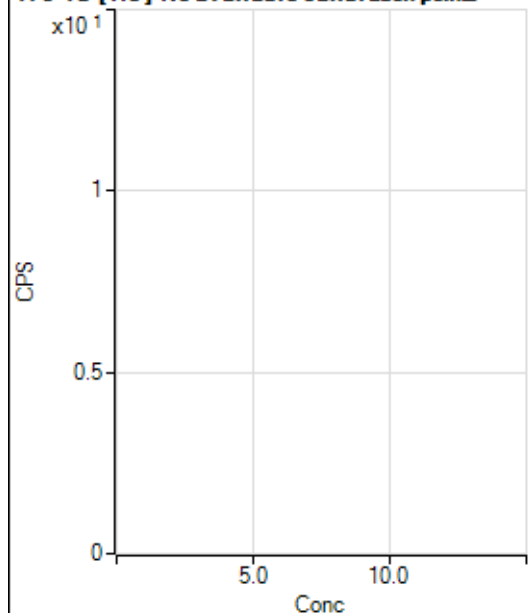
172 Yb [He] No available calibration points

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t.	RSD
1	☐			26.67		P	12.5
2	☐			25.56		P	45.8
3	☐			46.66		P	24.7
4	☐			75.55		P	17.8
5	☐			115.56		P	15.9
6	☐			180.00		P	1.9
7	☐			306.67		P	4.3
8	☐			860.04		P	7.4

176 Yb [No Gas] No available calibration points

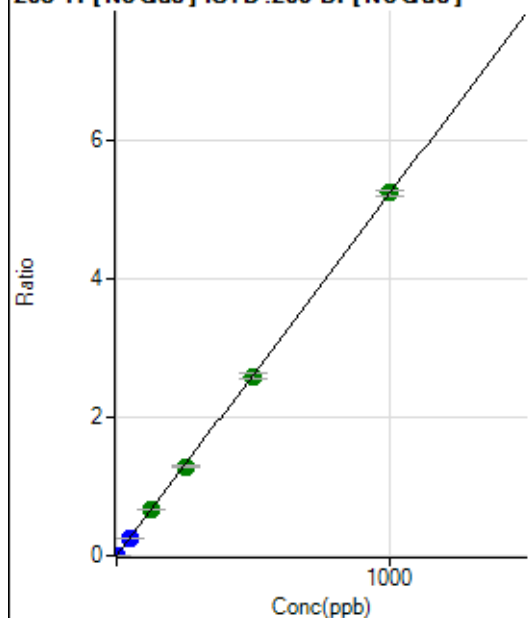
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t.	RSD
1	☐			1777.91		P	5.4
2	☐			1992.39		P	1.3
3	☐			9365.60		P	1.2
4	☐			20376.89		P	1.0
5	☐			37994.57		P	1.4
6	☐			73267.13		P	0.8
7	☐			144181.30		P	0.6
8	☐			2714.75		P	1.9

176 Yb [He] No available calibration points



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐			513.35		P	6.2
2	☐			481.13		P	9.4
3	☐			3506.06		P	2.4
4	☐			7822.40		P	1.3
5	☐			15135.40		P	1.2
6	☐			28726.80		P	1.7
7	☐			57470.97		P	0.7
8	☐			978.94		P	7.1

203 Tl [No Gas] ISTD :209 Bi [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	214.45	0.0000	P	9.1
2	☐	1.000	0.991	32749.03	0.0052	P	1.2
3	☐	50.000	48.833	1570800.70	0.2556	P	0.2
4	☐	125.000	125.508	4030038.41	0.6569	A	0.4
5	☐	250.000	244.834	7728473.63	1.2814	A	2.3
6	☐	500.000	496.232	14885971.72	2.5972	A	2.6
7	☐	1000.000	1003.170	29265762.62	5.2504	A	1.6
8	☐			1849.05	0.0004	P	11.0

$$y = 0.0052 * x + 3.3664E-005$$

$$R = 1.0000$$

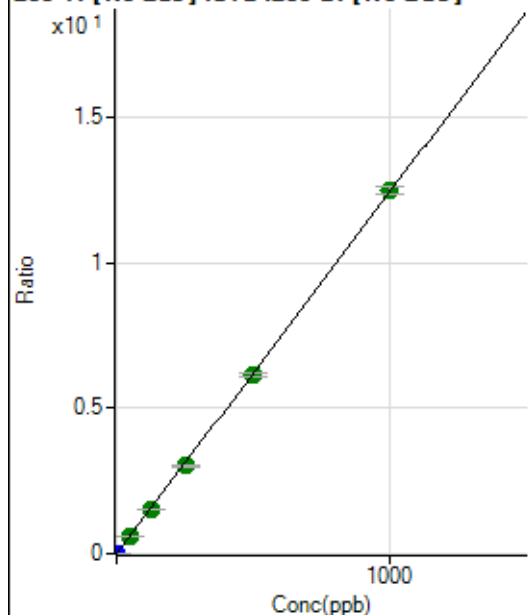
$$DL = 0.001755$$

$$BEC = 0.006432$$

Weight: <None>

Min Conc: 0

205 Tl [No Gas] ISTD :209 Bi [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	520.01	0.0001	P	6.6
2	☐	1.000	1.008	79026.64	0.0126	P	0.9
3	☐	50.000	50.047	3816404.11	0.6210	A	0.6
4	☐	125.000	121.481	9247318.26	1.5073	A	0.2
5	☐	250.000	242.761	18166838.48	3.0121	A	2.0
6	☐	500.000	496.060	35277953.92	6.1548	A	2.5
7	☐	1000.000	1004.217	69448584.52	12.4597	A	2.0
8	☐			4365.23	0.0009	P	9.7

$$y = 0.0124 * x + 8.1733E-005$$

$$R = 1.0000$$

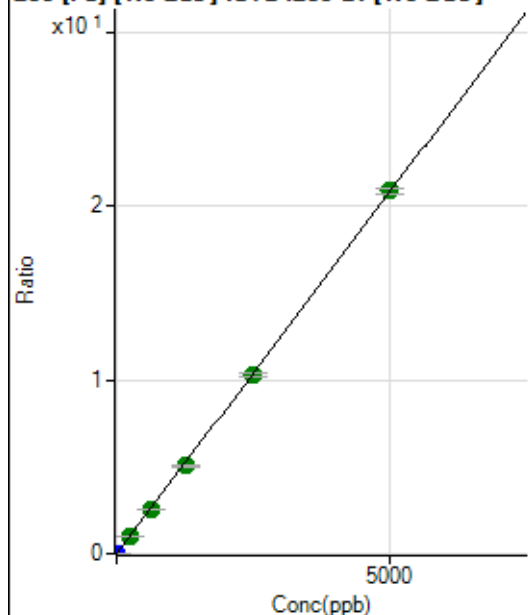
$$DL = 0.001308$$

$$BEC = 0.006588$$

Weight: <None>

Min Conc: 0

206 [Pb] [No Gas] ISTD :209 Bi [No Gas]



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	1390.09	0.0002	P	8.2
2	☐	1.000	1.006	27632.88	0.0044	P	1.6
3	☐	250.000	251.805	6436654.56	1.0474	A	0.7
4	☐	625.000	618.348	15777118.38	2.5718	A	0.8
5	☐	1250.000	1217.031	30526853.16	5.0616	A	2.1
6	☐	2500.000	2476.082	59023219.68	10.2976	A	2.5
7	☐	5000.000	5020.942	116393852.71	20.8811	A	1.6
8	☐			76453.66	0.0163	P	2.1

$$y = 0.0042 * x + 2.1830E-004$$

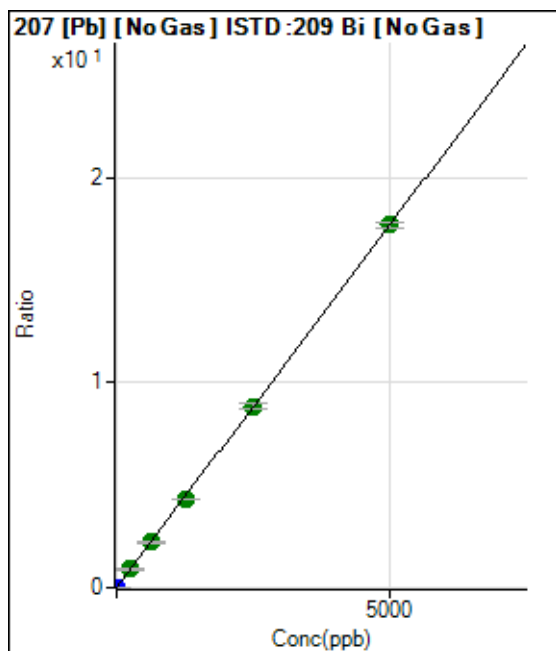
$$R = 1.0000$$

$$DL = 0.01285$$

$$BEC = 0.05249$$

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	1178.96	0.0002	P	6.6
2	☐	1.000	1.034	24112.49	0.0038	P	1.7
3	☐	250.000	254.271	5524456.86	0.8990	A	2.3
4	☐	625.000	623.890	13530017.30	2.2055	A	0.8
5	☐	1250.000	1219.025	25991011.00	4.3091	A	0.4
6	☐	2500.000	2499.551	50635655.91	8.8354	A	3.1
7	☐	5000.000	5007.893	98674451.86	17.7016	A	1.3
8	☐			64468.16	0.0138	P	2.3

$$y = 0.0035 * x + 1.8559E-004$$

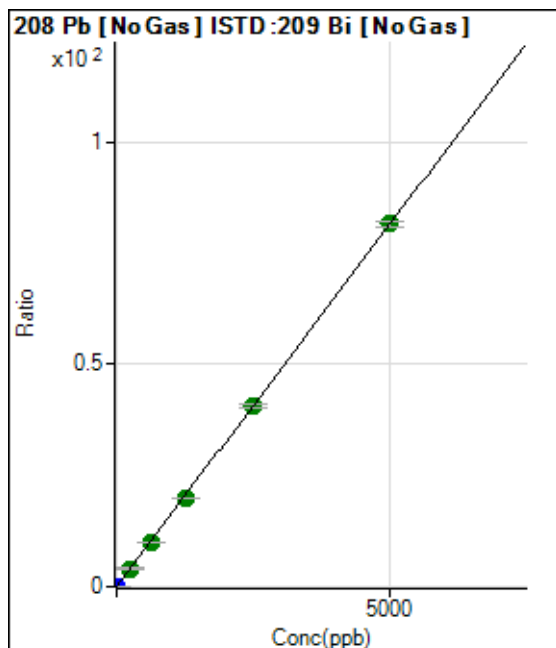
R = 1.0000

DL = 0.01034

BEC = 0.0525

Weight: <None>

Min Conc: 0



	R _j ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	5486.08	0.0009	P	4.2
2	☐	1.000	1.024	110109.53	0.0175	P	1.4
3	☐	250.000	251.842	25216424.69	4.1033	A	1.2
4	☐	625.000	618.696	61835349.08	10.0794	A	0.6
5	☐	1250.000	1220.195	119893312.10	19.8777	A	0.7
6	☐	2500.000	2495.582	233001839.31	40.6536	A	2.8
7	☐	5000.000	5010.356	454955947.67	81.6190	A	1.7
8	☐			298209.18	0.0637	P	1.4

$$y = 0.0163 * x + 8.6215E-004$$

R = 1.0000

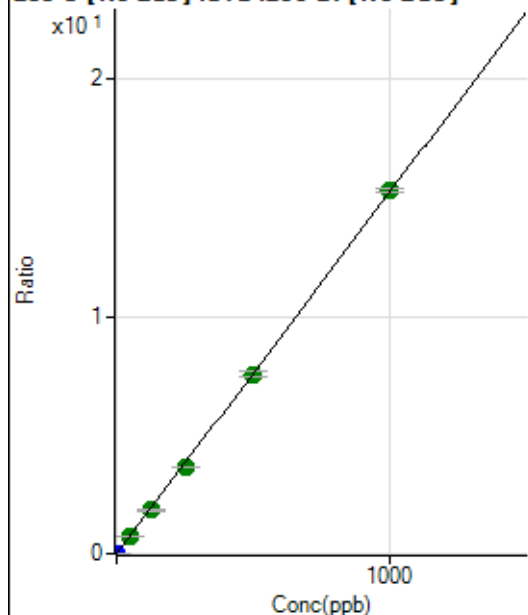
DL = 0.006721

BEC = 0.05293

Weight: <None>

Min Conc: 0

238 U [No Gas] ISTD :209 Bi [No Gas]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	0.000	0.000	302.23	0.0000	P	15.5
2	☐	1.000	1.024	98116.99	0.0156	P	0.9
3	☐	50.000	49.154	4599750.28	0.7485	A	0.7
4	☐	125.000	120.100	11218821.22	1.8288	A	1.1
5	☐	250.000	239.121	21961643.42	3.6411	A	1.5
6	☐	500.000	497.361	43405030.74	7.5732	A	2.8
7	☐	1000.000	1004.694	85274897.07	15.2981	A	1.2
8	☐			3140.43	0.0007	P	14.4

$$y = 0.0152 * x + 4.7696E-005$$

R = 0.9999

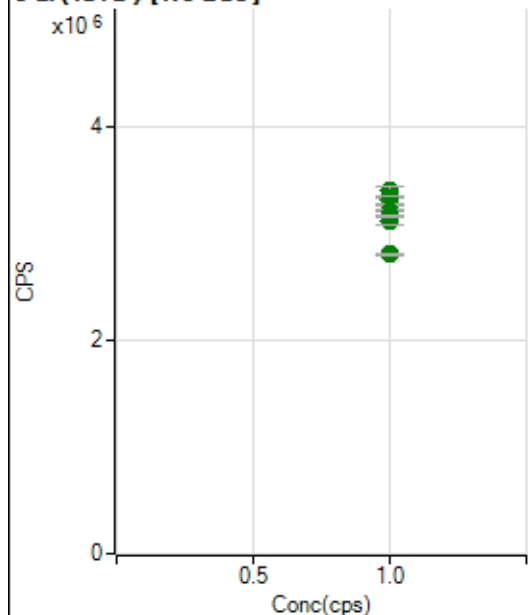
DL = 0.001454

BEC = 0.003132

Weight: <None>

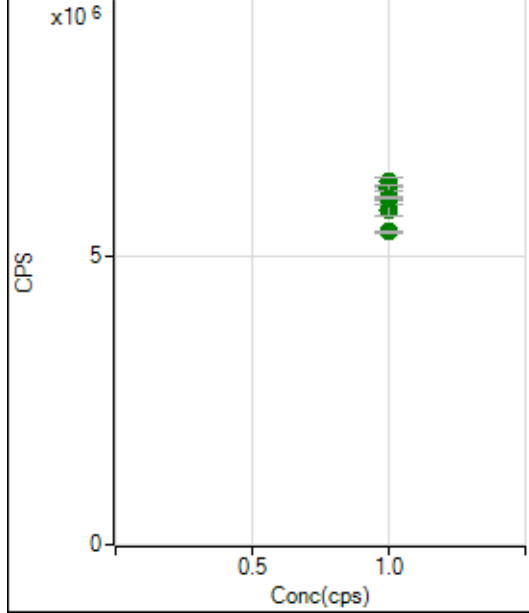
Min Conc: 0

6 Li (ISTD) [No Gas]



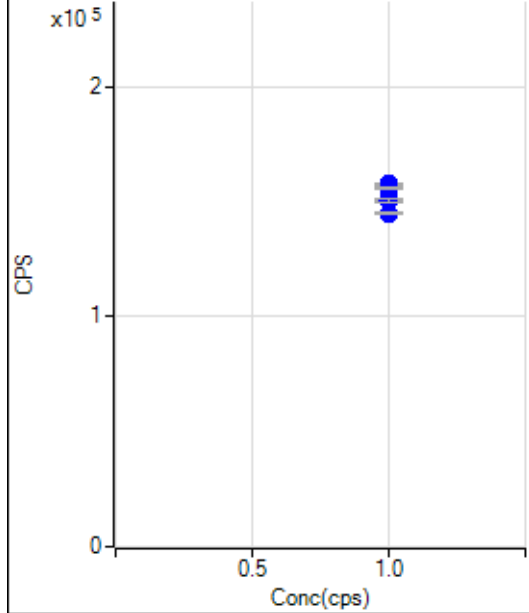
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		3394726.21		A	2.8
2	☐	1.000		3332657.59		A	0.7
3	☐	1.000		3308956.23		A	2.3
4	☐	1.000		3259929.47		A	0.7
5	☐	1.000		3208548.21		A	0.4
6	☐	1.000		3116744.19		A	2.2
7	☐	1.000		3161764.52		A	0.8
8	☐	1.000		2804902.15		A	0.6

45 Sc (ISTD) [No Gas]



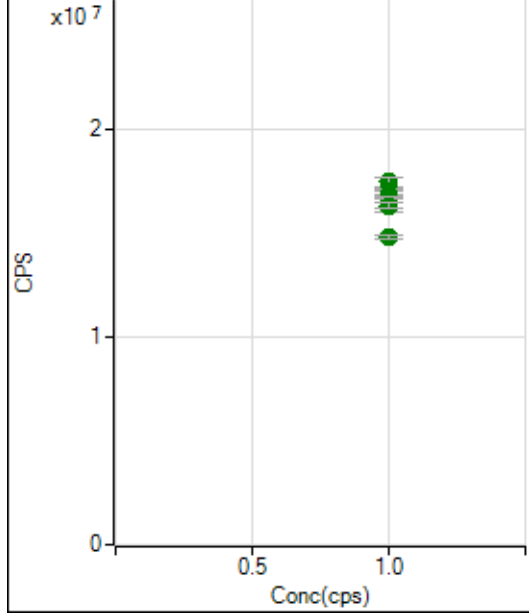
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		6287999.56		A	2.9
2	☐	1.000		6172409.56		A	1.2
3	☐	1.000		6187394.07		A	1.7
4	☐	1.000		5998809.70		A	0.7
5	☐	1.000		6011871.16		A	0.8
6	☐	1.000		5801926.03		A	3.9
7	☐	1.000		6015221.02		A	0.7
8	☐	1.000		5418394.78		A	0.5

45 Sc (ISTD) [He]



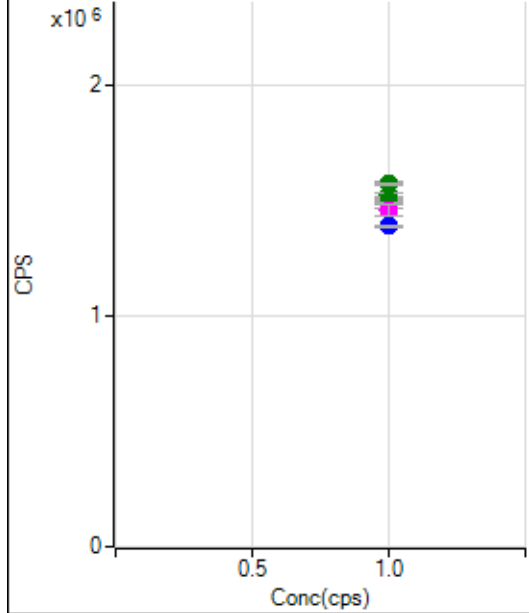
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		157590.87		P	0.7
2	☐	1.000		155920.59		P	0.8
3	☐	1.000		150824.78		P	0.5
4	☐	1.000		150245.34		P	0.9
5	☐	1.000		150594.78		P	0.5
6	☐	1.000		150130.02		P	1.4
7	☐	1.000		155754.55		P	0.4
8	☐	1.000		144858.10		P	0.5

89 Y (ISTD) [No Gas]

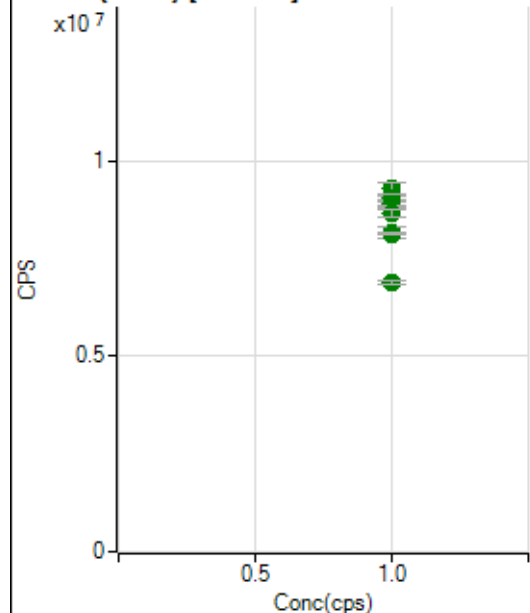


	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		17436594.74		A	3.0
2	☐	1.000		16978205.44		A	1.5
3	☐	1.000		17035770.02		A	0.9
4	☐	1.000		16808242.11		A	0.5
5	☐	1.000		16725721.70		A	0.5
6	☐	1.000		16303505.04		A	4.3
7	☐	1.000		16304003.92		A	1.5
8	☐	1.000		14788992.28		A	0.9

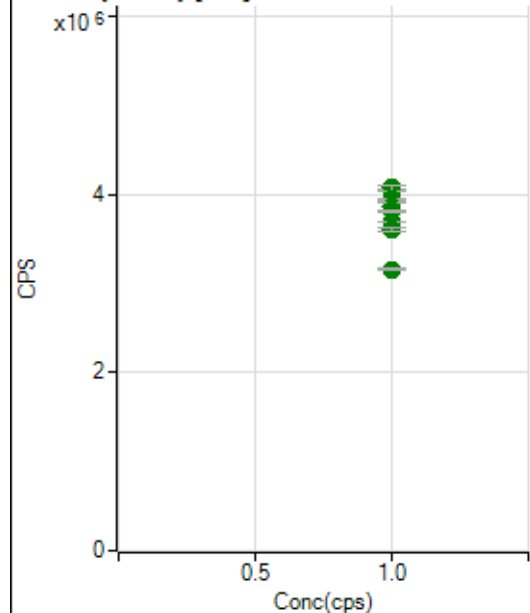
89 Y (ISTD) [He]



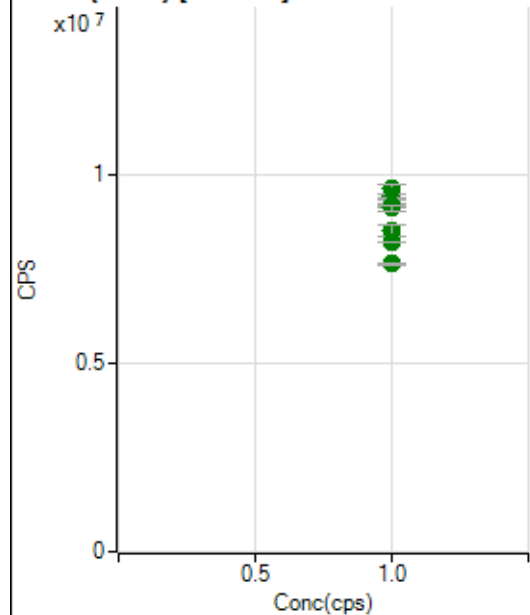
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		1571215.48		A	0.9
2	☐	1.000		1570761.66		A	0.6
3	☐	1.000		1522291.49		A	1.2
4	☐	1.000		1483707.06		M	2.1
5	☐	1.000		1500195.88		A	0.6
6	☐	1.000		1488627.34		A	0.7
7	☐	1.000		1455520.83		M	3.2
8	☐	1.000		1386829.20		P	0.7

103 Rh (ISTD) [No Gas]

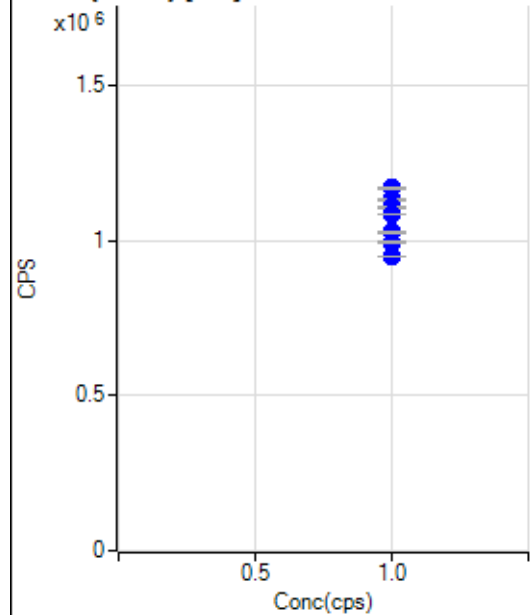
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		9291377.22		A	4.0
2	☐	1.000		9074758.82		A	1.4
3	☐	1.000		8893686.40		A	1.5
4	☐	1.000		8843240.70		A	0.7
5	☐	1.000		8666924.38		A	2.2
6	☐	1.000		8172357.03		A	3.8
7	☐	1.000		8145529.46		A	0.9
8	☐	1.000		6898414.13		A	1.2

103 Rh (ISTD) [He]

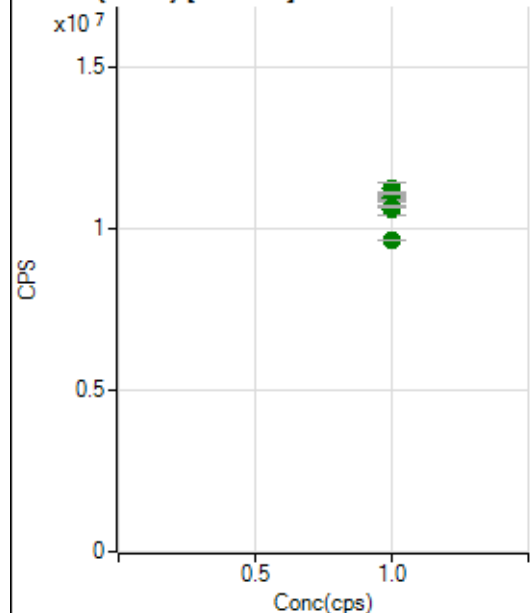
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		4040487.51		A	0.8
2	☐	1.000		4070936.57		A	1.8
3	☐	1.000		3939198.76		A	0.5
4	☐	1.000		3860675.36		A	2.0
5	☐	1.000		3814345.50		A	0.4
6	☐	1.000		3688360.29		A	0.3
7	☐	1.000		3601686.40		A	1.1
8	☐	1.000		3153742.87		A	0.7

115 In (ISTD) [No Gas]

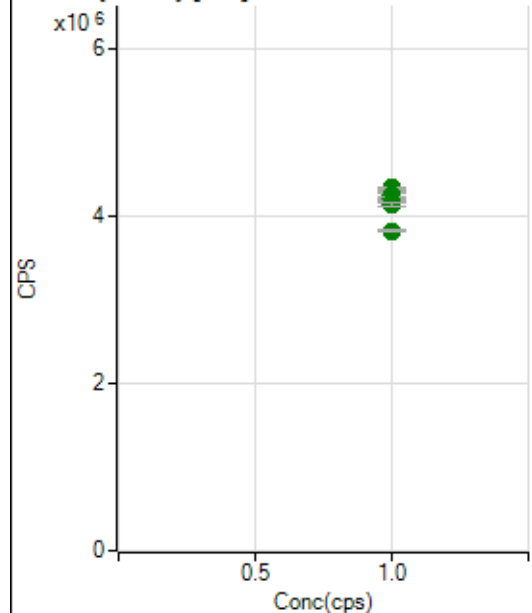
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		9631159.71		A	2.8
2	☐	1.000		9445184.38		A	0.9
3	☐	1.000		9363869.44		A	0.8
4	☐	1.000		9188455.78		A	0.9
5	☐	1.000		9112798.04		A	1.3
6	☐	1.000		8538146.33		A	3.4
7	☐	1.000		8224329.28		A	0.3
8	☐	1.000		7646366.77		A	0.5

115 In (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		1169434.78		P	0.3
2	☐	1.000		1169240.02		P	0.4
3	☐	1.000		1132410.66		P	0.8
4	☐	1.000		1106969.53		P	0.4
5	☐	1.000		1085902.56		P	0.3
6	☐	1.000		1027495.97		P	0.8
7	☐	1.000		945999.97		P	0.1
8	☐	1.000		993062.58		P	0.6

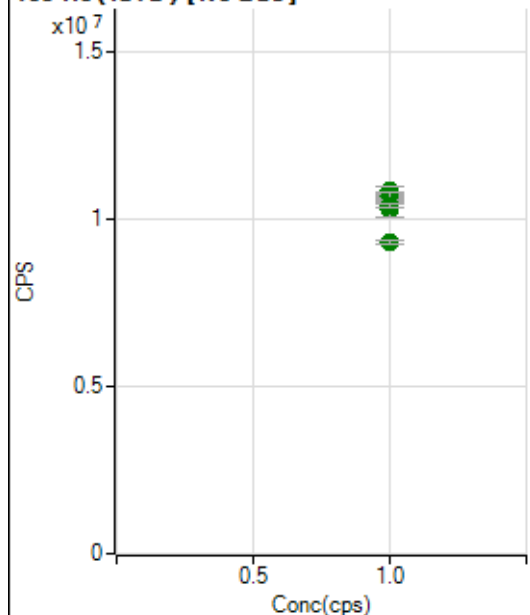
159 Tb (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		11220545.67		A	3.4
2	☐	1.000		11006927.20		A	1.6
3	☐	1.000		11104703.45		A	0.4
4	☐	1.000		10934306.37		A	0.7
5	☐	1.000		11096223.45		A	0.8
6	☐	1.000		10603243.87		A	4.1
7	☐	1.000		10660179.70		A	0.5
8	☐	1.000		9634655.97		A	0.6

159 Tb (ISTD) [He]

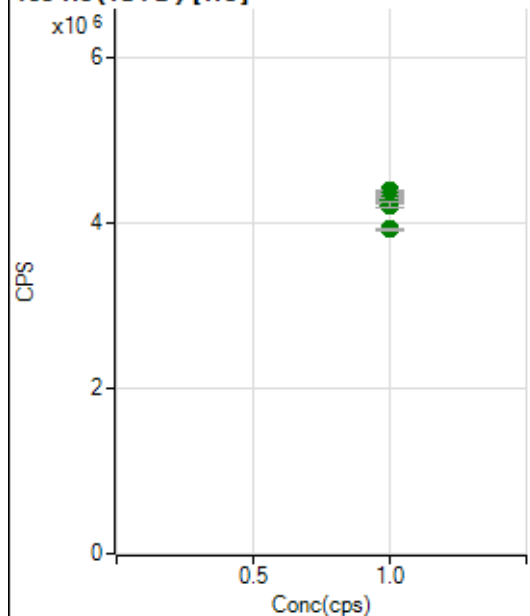
	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		4317555.21		A	0.4
2	☐	1.000		4338030.18		A	0.3
3	☐	1.000		4252267.96		A	0.9
4	☐	1.000		4227279.56		A	0.6
5	☐	1.000		4216263.62		A	1.2
6	☐	1.000		4168738.20		A	0.6
7	☐	1.000		4138591.60		A	0.6
8	☐	1.000		3827265.01		A	0.5

165 Ho (ISTD) [No Gas]

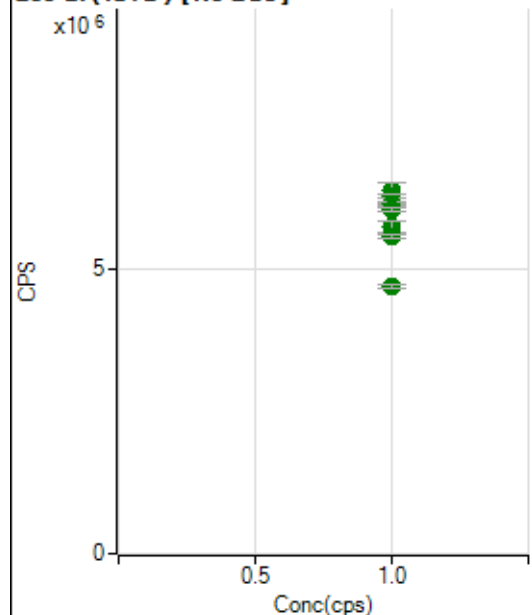


	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		10823182.89		A	2.7
2	☐	1.000		10666140.68		A	0.6
3	☐	1.000		10609120.05		A	0.4
4	☐	1.000		10663091.99		A	0.6
5	☐	1.000		10682290.81		A	2.0
6	☐	1.000		10270645.33		A	4.0
7	☐	1.000		10364171.58		A	1.0
8	☐	1.000		9285372.29		A	1.6

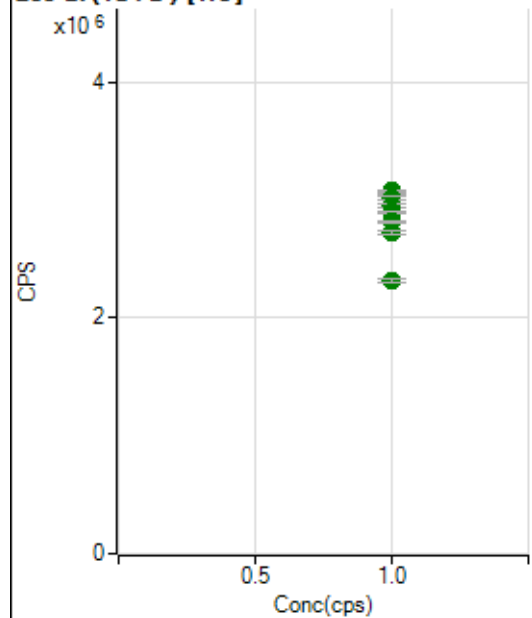
165 Ho (ISTD) [He]



	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		4394266.39		A	0.4
2	☐	1.000		4332349.55		A	0.4
3	☐	1.000		4290930.07		A	0.3
4	☐	1.000		4313785.56		A	2.1
5	☐	1.000		4274816.60		A	0.3
6	☐	1.000		4276214.35		A	1.5
7	☐	1.000		4224025.91		A	1.4
8	☐	1.000		3926208.21		A	0.5

209 Bi (ISTD) [No Gas]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		6363998.79		A	4.3
2	☐	1.000		6276465.04		A	0.8
3	☐	1.000		6145209.98		A	0.4
4	☐	1.000		6134916.51		A	0.7
5	☐	1.000		6031903.17		A	1.3
6	☐	1.000		5734799.22		A	3.2
7	☐	1.000		5574754.78		A	1.2
8	☐	1.000		4683273.02		A	1.8

209 Bi (ISTD) [He]

	Rj ct	Conc.	Calc Conc.	CPS	Ratio	De t	RSD
1	☐	1.000		3054194.09		A	0.1
2	☐	1.000		3079726.90		A	0.7
3	☐	1.000		3020218.22		A	0.9
4	☐	1.000		2947693.43		A	1.2
5	☐	1.000		2901680.48		A	0.8
6	☐	1.000		2816501.10		A	0.5
7	☐	1.000		2721163.62		A	1.2
8	☐	1.000		2322553.94		A	1.6

US EPA Tune Check Report

Reviewed By:moh
On:4/9/2025 12:00
PM
Inst Id :P8
LB :LB135332

Operator Name Jaswal
Acq/Data Batch D:\Agilent\ICPMH\1\DATA\P8040725 MS.b
Acq. Date-Time 2025-04-07 10:28:29
Report Comment ---
Instrument Name G8403A SG19224459

[No Gas]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
9		89365	893654.62			1.303	5.000
24		425062	4250619.24			0.798	5.000
25		58062	580621.84			0.516	5.000
26		65497	654973.01			0.714	5.000
59		402328	4023280.51			0.869	5.000
113		47862	478621.65			0.376	5.000
115		618287	6182870.00			0.619	5.000
206		119272	1192715.69			1.154	5.000
207		102654	1026535.58			1.028	5.000
208		251314	2513143.09			0.277	5.000
220		0	4.90			31.780	

Mass	RSD% (Flag)
9	
24	
25	
26	
59	
113	
115	
206	
207	
208	
220	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
9	90763	89795	89803	87718	88748
24	428605	426405	424651	426099	419549
25	58417	58232	58154	57805	57702
26	65979	65789	65710	65122	64887
59	406359	404838	402244	400750	397449
113	47786	47885	47848	47650	48141
115	620660	612761	620144	615928	621941
206	119002	118480	121677	118908	118290
207	103386	102233	104121	101699	101828
208	252130	250552	251972	250963	250953

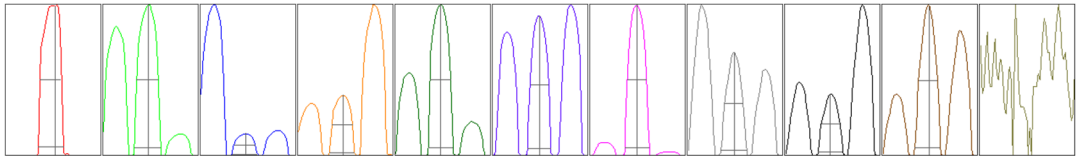
US EPA Tune Check Report

Reviewed By:moh
On:4/9/2025 12:00
PM
Inst Id :P8
LB :LB135332

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
220	1	1	0	0	0

Integration Time [sec] 0.1

Resolution/Axis



Mass	Peak Height	Axis	Axis (Required)	Axis (Flag)
9	134960.50	9.10	8.90 - 9.10	
24	658678.31	23.95	23.90 - 24.10	
25	91728.01	24.95	24.90 - 25.10	
26	106228.32	25.95	25.90 - 26.10	
59	651504.56	58.95	58.90 - 59.10	
113	86464.64	113.00	112.90 - 113.10	
115	1092365.16	115.00	114.90 - 115.10	
206	219344.73	206.00	205.90 - 206.10	
207	183957.83	206.95	206.90 - 207.10	
208	449047.83	208.00	207.90 - 208.10	
220			-	

Mass	W-50%	W-5%	W-5% (Required)	W-5% (Flag)
9	0.69	0.790	0.900	
24	0.69	0.835	0.900	
25	0.67	0.804	0.900	
26	0.66	0.788	0.900	
59	0.65	0.787	0.900	
113	0.58	0.735	0.900	
115	0.59	0.775	0.900	
206	0.57	0.817	0.900	
207	0.59	0.787	0.900	
208	0.59	0.816	0.900	
220				

Integration Time [sec] 0.1
Acquisition Time [sec] 256.770000000002
Y Axis Linear

Tune Parameters

Plasma Parameters

Plasma Mode --- Nebulizer Gas 0.72 L/min Dilution Gas 0.40 L/min

US EPA Tune Check Report

Reviewed By:moh
On:4/9/2025 12:00
PM
Inst Id :P8
LB :LB135332

RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0
Sample Depth	9.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	-6.0 V	Omega Lens	8.2 V	Deflect	13.4 V
Extract 2	-245.0 V	Cell Entrance	-30 V	Plate Bias	-50 V
Omega Bias	-100 V	Cell Exit	-50 V		

Cell Parameters

Use Gas	No	3rd Gas Flow	---	Energy Discrimination	4.0 V
He Flow	0.0 mL/min	OctP Bias	-8.0 V		
H2 Flow	---	OctP RF	140 V		

QP Parameters

Mass Gain	105	Axis Gain	0.9964	QP Bias	-4.0 V
Mass Offset	125	Axis Offset	0.04		

Hardware Settings

Torch

Torch H	0.7 mm	Torch V	-0.2 mm
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EM

Discriminator	4.6 mV	Analog HV	2211 V	Pulse HV	940 V
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[He]

Sensitivity

Mass	Conc. [ug/l]	Count	CPS	Resp (Required) [cps/ug/l]	Resp (Flag)	RSD%	RSD% (Required)
59		88665	886652.58			2.035	
89		77288	772875.09			0.648	
205		82769	827692.08			1.146	

Mass	RSD% (Flag)
59	
89	
205	

Mass	Rep#1 Count	Rep#2 Count	Rep#3 Count	Rep#4 Count	Rep#5 Count
59	86156	88235	88314	91021	89600
89	76505	77175	77314	77747	77696
205	81492	82065	83107	83544	83638

Integration Time [sec] 0.1

Tune Parameters

Plasma Parameters

Plasma Mode	---	Nebulizer Gas	0.72 L/min	Dilution Gas	0.40 L/min
RF Power	1600 W	Option Gas	---	Auxiliary Gas	0.90 L/min
RF Matching	1.80 V	Nebulizer Pump	0.10 rps	Plasma Gas	15.0 L/min
Sample Depth	9.0 mm	S/C Temp	2 °C		

Lens Parameters

Extract 1	-6.0 V	Omega Lens	8.2 V	Deflect	2.0 V
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US EPA Tune Check Report

Reviewed By:moh
On:4/9/2025 12:00
PM
Inst Id :P8
LB :LB135332

Extract 2	-245.0 V	Cell Entrance	-50 V	Plate Bias	-60 V
Omega Bias	-100 V	Cell Exit	-70 V		
Cell Parameters					
Use Gas	Yes	3rd Gas Flow	---	Energy Discrimination	5.0 V
He Flow	4.5 mL/min	OctP Bias	-18.0 V		
H2 Flow	---	OctP RF	200 V		
QP Parameters					
Mass Gain	105	Axis Gain	0.9964	QP Bias	-13.0 V
Mass Offset	125	Axis Offset	0.04		
Hardware Settings					
Torch					
Torch H	0.7 mm	Torch V	-0.2 mm		
EM					
Discriminator	4.6 mV	Analog HV	2211 V	Pulse HV	940 V

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S0 Instrumnet Name : P8
Client Sample ID : S0 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:29:45 DataFile Name : 004CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.24	-0.26	0.02	0.00	N/A	ppb
Antimony	121-1	0.00	0.00	0.00	0.00	N/A	ppb
Arsenic	75-2	0.00	0.00	0.00	0.00	N/A	ppb
Barium	135-1	0.00	0.00	0.00	0.00	N/A	ppb
Barium	137-1	0.00	0.00	0.00	0.00	N/A	ppb
Beryllium	9-1	0.00	0.00	0.00	0.00	N/A	ppb
Bismuth	209-1				100		%
Bismuth	209-2				100		%
Bromine	81-1						cps
Cadmium	108-1	-0.02	0.00	0.02	0.00	N/A	ppb
Cadmium	106-1	0.14	0.03	-0.17	0.00	N/A	ppb
Cadmium	111-1	0.01	0.00	-0.01	0.00	N/A	ppb
Calcium	43-1	-0.66	1.07	-0.41	0.00	N/A	ppb
Calcium	44-1	-0.30	0.73	-0.43	0.00	N/A	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.02	-0.01	-0.01	0.00	N/A	ppb
Cobalt	59-2	0.00	0.00	0.00	0.00	N/A	ppb
Copper	63-2	0.01	-0.01	0.00	0.00	N/A	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				100		%
Holmium	165-2				100		%
Indium	115-1				100		%
Indium	115-2				100		%
Iron	54-2	-0.28	-0.11	0.39	0.00	N/A	ppb
Iron	56-2	-0.11	0.18	-0.07	0.00	N/A	ppb
Iron	57-2	-0.17	-0.07	0.24	0.00	N/A	ppb
Krypton	83-1						cps
Lead	206-1	0.00	0.00	0.00	0.00	N/A	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S0 Instrumnet Name : P8
Client Sample ID : S0 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:29:45 DataFile Name : 004CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.00	0.00	0.00	0.00	N/A	ppb
Lead	208-1	0.00	0.00	0.00	0.00	N/A	ppb
Lithium	6-1				100		%
Magnesium	24-2	-0.02	0.06	-0.04	0.00	N/A	ppb
Manganese	55-2	0.01	-0.03	0.02	0.00	N/A	ppb
Molybdenum	94-1	0.00	0.00	0.00	0.00	N/A	ppb
Molybdenum	95-1	0.00	0.00	0.00	0.00	N/A	ppb
Molybdenum	96-1	0.00	0.00	0.00	0.00	N/A	ppb
Molybdenum	97-1	0.00	0.00	0.00	0.00	N/A	ppb
Molybdenum	98-1	0.00	0.00	0.00	0.00	N/A	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.00	0.00	0.00	0.00	N/A	ppb
Phosphorus	31-2	-26.77	-20.27	-17.42	-21.49		ppb
Potassium	39-2	0.35	0.35	-0.70	0.00	N/A	ppb
Rhodium	103-1				100		%
Rhodium	103-2				100		%
Scandium	45-1				100		%
Scandium	45-2				100		%
Selenium	82-1	-0.05	0.13	-0.08	0.00	N/A	ppb
Selenium	77-2	-0.25	0.24	0.01	0.00	N/A	ppb
Selenium	78-2	0.12	0.12	-0.24	0.00	N/A	ppb
Silicon	28-1	-0.01	0.04	-0.03	0.00	N/A	ppb
Silver	107-1	0.00	0.00	0.00	0.00	N/A	ppb
Silver	109-1	0.00	0.00	0.00	0.00	N/A	ppb
Sodium	23-2	-0.91	0.42	0.49	0.00	N/A	ppb
Strontium	86-1	0.00	0.00	0.00	0.00	N/A	ppb
Strontium	88-1	0.00	0.00	0.00	0.00	N/A	ppb
Sulfur	34-1	-157.13	-112.95	-60.45	-110.18		ppb
Terbium	159-1				100		%
Terbium	159-2				100		%
Thallium	203-1	0.00	0.00	0.00	0.00	N/A	ppb
Thallium	205-1	0.00	0.00	0.00	0.00	N/A	ppb
Tin	118-1	-0.04	0.08	-0.04	0.00	N/A	ppb
Titanium	47-1	0.00	0.00	0.00	0.00	N/A	ppb
Uranium	238-1	0.00	0.00	0.00	0.00	N/A	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S0 Instrumnet Name : P8
Client Sample ID : S0 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:29:45 DataFile Name : 004CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	0.00	0.00	0.00	N/A	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				100		%
Yttrium	89-2				100		%
Zinc	66-2	-0.03	-0.07	0.10	0.00	N/A	ppb
Zirconium	90-1	0.00	0.00	0.00	0.00	N/A	ppb
Zirconium	91-1	0.00	0.00	0.00	0.00	N/A	ppb

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S2 Instrumnet Name : P8
Client Sample ID : S2 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:36:29 DataFile Name : 006CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	23.12	25.76	23.70	24.19	5.72	ppb
Antimony	121-1	2.16	2.21	2.23	2.20	1.81	ppb
Arsenic	75-2	1.25	1.16	1.18	1.20	3.75	ppb
Barium	135-1	10.76	10.76	10.89	10.80	0.69	ppb
Barium	137-1	10.73	10.83	11.00	10.85	1.26	ppb
Beryllium	9-1	1.20	1.23	1.26	1.23	2.33	ppb
Bismuth	209-1				99		%
Bismuth	209-2				101		%
Bromine	81-1						cps
Cadmium	108-1	1.00	1.30	1.11	1.14	13.13	ppb
Cadmium	106-1	0.89	0.94	1.17	1.00	14.75	ppb
Cadmium	111-1	1.14	1.14	1.20	1.16	2.92	ppb
Calcium	43-1	567.85	586.44	577.44	577.24	1.61	ppb
Calcium	44-1	568.80	579.86	577.54	575.40	1.01	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.43	2.36	2.35	2.38	1.74	ppb
Cobalt	59-2	1.21	1.26	1.22	1.23	1.77	ppb
Copper	63-2	2.26	2.27	2.24	2.26	0.63	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				99		%
Holmium	165-2				99		%
Indium	115-1				98		%
Indium	115-2				100		%
Iron	54-2	61.65	64.09	60.88	62.21	2.69	ppb
Iron	56-2	60.95	60.29	60.26	60.50	0.65	ppb
Iron	57-2	61.64	59.71	58.99	60.11	2.28	ppb
Krypton	83-1						cps
Lead	206-1	0.99	1.03	1.00	1.01	1.71	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S2 Instrumnet Name : P8
Client Sample ID : S2 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:36:29 DataFile Name : 006CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	1.02	1.06	1.03	1.03	1.79	ppb
Lead	208-1	1.01	1.04	1.02	1.02	1.49	ppb
Lithium	6-1				98		%
Magnesium	24-2	612.90	608.34	603.92	608.39	0.74	ppb
Manganese	55-2	0.98	1.08	1.06	1.04	5.00	ppb
Molybdenum	94-1	6.56	6.37	6.24	6.39	2.54	ppb
Molybdenum	95-1	5.34	5.39	5.28	5.34	1.06	ppb
Molybdenum	96-1	5.44	5.45	5.28	5.39	1.83	ppb
Molybdenum	97-1	5.47	5.46	5.27	5.40	2.06	ppb
Molybdenum	98-1	5.38	5.40	5.24	5.34	1.59	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	1.13	1.21	1.20	1.18	3.74	ppb
Phosphorus	31-2	27.21	21.67	15.59	21.49	27.06	ppb
Potassium	39-2	546.93	544.61	545.22	545.59	0.22	ppb
Rhodium	103-1				98		%
Rhodium	103-2				101		%
Scandium	45-1				98		%
Scandium	45-2				99		%
Selenium	82-1	5.91	5.67	5.88	5.82	2.30	ppb
Selenium	77-2	5.42	7.08	4.95	5.82	19.28	ppb
Selenium	78-2	6.14	6.52	6.46	6.38	3.25	ppb
Silicon	28-1	1.11	1.42	1.16	1.23	13.64	ppb
Silver	107-1	1.07	1.11	1.13	1.10	2.45	ppb
Silver	109-1	1.10	1.12	1.14	1.12	1.91	ppb
Sodium	23-2	591.23	587.41	587.35	588.66	0.38	ppb
Strontium	86-1	1.11	1.13	1.10	1.11	1.53	ppb
Strontium	88-1	1.09	1.10	1.09	1.09	0.41	ppb
Sulfur	34-1	40.11	171.67	118.74	110.18	60.08	ppb
Terbium	159-1				98		%
Terbium	159-2				100		%
Thallium	203-1	0.98	1.00	1.00	0.99	1.20	ppb
Thallium	205-1	1.00	1.02	1.01	1.01	0.87	ppb
Tin	118-1	5.45	5.60	5.67	5.57	2.04	ppb
Titanium	47-1	5.64	5.79	5.67	5.70	1.41	ppb
Uranium	238-1	1.01	1.03	1.03	1.02	0.90	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S2 Instrumnet Name : P8
Client Sample ID : S2 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:36:29 DataFile Name : 006CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	5.70	5.72	5.74	5.72	0.31	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				97		%
Yttrium	89-2				100		%
Zinc	66-2	4.82	4.94	4.76	4.84	1.90	ppb
Zirconium	90-1	1.06	1.06	1.04	1.06	1.15	ppb
Zirconium	91-1	1.06	1.04	1.02	1.04	1.79	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S3 Instrumnet Name : P8
Client Sample ID : S3 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:39:50 DataFile Name : 007CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1095.43	1095.52	1105.05	1098.66	0.50	ppb
Antimony	121-1	53.11	53.10	52.69	52.97	0.46	ppb
Arsenic	75-2	51.03	52.72	51.42	51.73	1.71	ppb
Barium	135-1	263.43	260.88	258.54	260.95	0.94	ppb
Barium	137-1	261.51	261.96	255.38	259.61	1.42	ppb
Beryllium	9-1	55.24	57.80	56.59	56.54	2.27	ppb
Bismuth	209-1				97		%
Bismuth	209-2				99		%
Bromine	81-1						cps
Cadmium	108-1	54.06	54.00	53.57	53.88	0.49	ppb
Cadmium	106-1	53.21	53.75	54.07	53.68	0.81	ppb
Cadmium	111-1	52.65	52.73	52.67	52.68	0.07	ppb
Calcium	43-1	5326.63	5469.16	5479.67	5425.15	1.58	ppb
Calcium	44-1	5238.92	5241.09	5420.63	5300.21	1.97	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	54.92	54.90	54.04	54.62	0.92	ppb
Cobalt	59-2	55.69	55.80	54.78	55.43	1.01	ppb
Copper	63-2	581.23	580.70	575.99	579.31	0.50	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				98		%
Holmium	165-2				98		%
Indium	115-1				97		%
Indium	115-2				97		%
Iron	54-2	2925.29	2900.56	2874.38	2900.08	0.88	ppb
Iron	56-2	2874.51	2858.05	2878.16	2870.24	0.37	ppb
Iron	57-2	2849.79	2821.93	2809.05	2826.92	0.74	ppb
Krypton	83-1						cps
Lead	206-1	250.26	251.48	253.68	251.81	0.69	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S3 Instrumnet Name : P8
Client Sample ID : S3 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:39:50 DataFile Name : 007CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	249.51	252.63	260.68	254.27	2.27	ppb
Lead	208-1	248.69	251.97	254.86	251.84	1.22	ppb
Lithium	6-1				97		%
Magnesium	24-2	5665.26	5693.07	5645.19	5667.84	0.42	ppb
Manganese	55-2	564.91	566.40	556.29	562.53	0.97	ppb
Molybdenum	94-1	497.35	509.09	513.28	506.57	1.63	ppb
Molybdenum	95-1	502.46	511.02	509.39	507.62	0.90	ppb
Molybdenum	96-1	491.28	511.48	503.81	502.19	2.03	ppb
Molybdenum	97-1	500.59	512.79	501.86	505.08	1.33	ppb
Molybdenum	98-1	497.13	509.16	503.36	503.22	1.20	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	56.03	56.04	55.07	55.72	1.00	ppb
Phosphorus	31-2	1091.16	1102.26	1089.29	1094.24	0.64	ppb
Potassium	39-2	2593.56	2578.78	2575.01	2582.45	0.38	ppb
Rhodium	103-1				96		%
Rhodium	103-2				97		%
Scandium	45-1				98		%
Scandium	45-2				96		%
Selenium	82-1	53.74	54.68	54.14	54.19	0.87	ppb
Selenium	77-2	47.36	47.96	54.76	50.03	8.22	ppb
Selenium	78-2	58.12	55.68	54.69	56.17	3.15	ppb
Silicon	28-1	53.73	55.61	55.27	54.87	1.82	ppb
Silver	107-1	55.24	55.88	54.96	55.36	0.85	ppb
Silver	109-1	55.10	55.37	55.64	55.37	0.49	ppb
Sodium	23-2	5492.54	5455.82	5398.57	5448.97	0.87	ppb
Strontium	86-1	50.11	50.75	50.10	50.32	0.74	ppb
Strontium	88-1	50.78	51.66	51.20	51.21	0.86	ppb
Sulfur	34-1	1160.20	1307.61	1337.18	1268.33	7.47	ppb
Terbium	159-1				99		%
Terbium	159-2				98		%
Thallium	203-1	48.91	48.71	48.88	48.83	0.22	ppb
Thallium	205-1	49.83	49.95	50.36	50.05	0.56	ppb
Tin	118-1	51.17	53.07	50.93	51.72	2.27	ppb
Titanium	47-1	518.31	517.77	522.66	519.58	0.52	ppb
Uranium	238-1	48.76	49.38	49.32	49.15	0.69	ppb

LB Number :LB135332Operator :Jaswal

Lab Sample ID :S3Instrumnet Name :P8

Client Sample ID :S3Dilution Factor :1

Date & Time Acquired :2025-04-07 11:39:50DataFile Name :007CALB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	54.84	54.42	54.17	54.48	0.62	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				98		%
Yttrium	89-2				97		%
Zinc	66-2	569.69	573.75	563.01	568.82	0.95	ppb
Zirconium	90-1	50.05	52.10	50.81	50.99	2.03	ppb
Zirconium	91-1	48.42	50.08	49.00	49.17	1.72	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S4 Instrumnet Name : P8
Client Sample ID : S4 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:42:51 DataFile Name : 008CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	2638.96	2624.68	2679.17	2647.60	1.07	ppb
Antimony	121-1	130.13	129.47	129.84	129.81	0.26	ppb
Arsenic	75-2	127.94	134.45	128.66	130.35	2.74	ppb
Barium	135-1	645.00	648.52	631.57	641.70	1.39	ppb
Barium	137-1	649.91	645.91	630.40	642.07	1.61	ppb
Beryllium	9-1	131.36	134.72	131.08	132.39	1.53	ppb
Bismuth	209-1				96		%
Bismuth	209-2				97		%
Bromine	81-1						cps
Cadmium	108-1	134.47	133.69	133.84	134.00	0.31	ppb
Cadmium	106-1	132.88	129.67	130.08	130.88	1.33	ppb
Cadmium	111-1	129.77	129.68	129.79	129.75	0.04	ppb
Calcium	43-1	13225.51	13564.08	13391.55	13393.71	1.26	ppb
Calcium	44-1	13224.41	13282.80	13407.57	13304.93	0.70	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	133.70	133.42	134.16	133.76	0.28	ppb
Cobalt	59-2	141.16	137.35	137.72	138.75	1.51	ppb
Copper	63-2	1393.40	1410.87	1421.12	1408.46	1.00	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				99		%
Holmium	165-2				98		%
Indium	115-1				95		%
Indium	115-2				95		%
Iron	54-2	7270.37	7283.71	7223.02	7259.04	0.44	ppb
Iron	56-2	6972.05	6969.13	7031.94	6991.04	0.51	ppb
Iron	57-2	6862.95	6880.28	6951.69	6898.31	0.68	ppb
Krypton	83-1						cps
Lead	206-1	617.58	623.84	613.63	618.35	0.83	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S4 Instrumnet Name : P8
Client Sample ID : S4 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:42:51 DataFile Name : 008CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	620.40	629.83	621.44	623.89	0.83	ppb
Lead	208-1	615.85	622.77	617.47	618.70	0.58	ppb
Lithium	6-1				96		%
Magnesium	24-2	13594.64	13765.08	13741.32	13700.35	0.67	ppb
Manganese	55-2	1348.51	1348.45	1355.11	1350.69	0.28	ppb
Molybdenum	94-1	1240.29	1262.68	1266.84	1256.60	1.14	ppb
Molybdenum	95-1	1244.39	1266.42	1265.06	1258.62	0.98	ppb
Molybdenum	96-1	1251.79	1262.72	1273.57	1262.69	0.86	ppb
Molybdenum	97-1	1273.20	1263.26	1285.10	1273.85	0.86	ppb
Molybdenum	98-1	1255.34	1261.11	1268.66	1261.70	0.53	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	133.99	133.48	134.92	134.13	0.55	ppb
Phosphorus	31-2	2645.39	2677.19	2634.74	2652.44	0.83	ppb
Potassium	39-2	6437.09	6414.67	6388.44	6413.40	0.38	ppb
Rhodium	103-1				95		%
Rhodium	103-2				96		%
Scandium	45-1				95		%
Scandium	45-2				95		%
Selenium	82-1	129.43	132.45	133.06	131.65	1.48	ppb
Selenium	77-2	125.20	137.01	134.75	132.32	4.74	ppb
Selenium	78-2	125.13	140.23	135.50	133.62	5.78	ppb
Silicon	28-1	135.93	136.09	135.75	135.93	0.13	ppb
Silver	107-1	136.86	133.23	132.89	134.33	1.64	ppb
Silver	109-1	136.93	135.70	135.71	136.11	0.52	ppb
Sodium	23-2	13198.89	13238.60	13556.87	13331.45	1.47	ppb
Strontium	86-1	127.73	129.45	128.66	128.61	0.67	ppb
Strontium	88-1	126.39	126.31	127.30	126.67	0.44	ppb
Sulfur	34-1	2399.13	2407.20	2485.10	2430.48	1.95	ppb
Terbium	159-1				97		%
Terbium	159-2				98		%
Thallium	203-1	125.36	126.10	125.06	125.51	0.43	ppb
Thallium	205-1	121.27	121.76	121.41	121.48	0.21	ppb
Tin	118-1	128.47	128.76	130.11	129.12	0.68	ppb
Titanium	47-1	1273.72	1286.50	1297.14	1285.79	0.91	ppb
Uranium	238-1	119.73	121.62	118.96	120.10	1.14	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S4 Instrumnet Name : P8
Client Sample ID : S4 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:42:51 DataFile Name : 008CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	133.90	132.89	134.59	133.79	0.64	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				96		%
Yttrium	89-2				94		%
Zinc	66-2	1400.13	1421.23	1428.83	1416.73	1.05	ppb
Zirconium	90-1	124.73	125.19	125.71	125.21	0.39	ppb
Zirconium	91-1	122.67	125.21	124.03	123.97	1.03	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S5 Instrumnet Name : P8
Client Sample ID : S5 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:45:39 DataFile Name : 009CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	5174.00	5197.70	5076.18	5149.29	1.25	ppb
Antimony	121-1	244.18	248.44	247.75	246.79	0.93	ppb
Arsenic	75-2	254.31	251.96	249.55	251.94	0.94	ppb
Barium	135-1	1211.71	1219.98	1230.82	1220.84	0.79	ppb
Barium	137-1	1213.57	1225.52	1236.67	1225.25	0.94	ppb
Beryllium	9-1	253.64	258.08	264.07	258.60	2.02	ppb
Bismuth	209-1				95		%
Bismuth	209-2				95		%
Bromine	81-1						cps
Cadmium	108-1	248.86	251.87	258.12	252.95	1.87	ppb
Cadmium	106-1	248.68	248.09	250.67	249.15	0.54	ppb
Cadmium	111-1	252.66	257.63	261.01	257.10	1.63	ppb
Calcium	43-1	26341.03	26380.19	26255.35	26325.53	0.24	ppb
Calcium	44-1	25796.59	25984.60	26143.16	25974.78	0.67	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	274.20	271.09	262.35	269.21	2.28	ppb
Cobalt	59-2	269.28	271.85	264.96	268.70	1.30	ppb
Copper	63-2	2727.54	2701.33	2689.46	2706.11	0.72	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				99		%
Holmium	165-2				97		%
Indium	115-1				95		%
Indium	115-2				93		%
Iron	54-2	13987.43	14004.53	13677.80	13889.92	1.32	ppb
Iron	56-2	13597.48	13646.50	13414.46	13552.81	0.90	ppb
Iron	57-2	13595.72	13875.00	13657.30	13709.34	1.07	ppb
Krypton	83-1						cps
Lead	206-1	1204.82	1246.73	1199.54	1217.03	2.12	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S5 Instrumnet Name : P8
Client Sample ID : S5 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:45:39 DataFile Name : 009CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	1214.27	1224.97	1217.83	1219.02	0.45	ppb
Lead	208-1	1211.75	1228.49	1220.34	1220.20	0.69	ppb
Lithium	6-1				95		%
Magnesium	24-2	27113.05	26546.33	26548.09	26735.82	1.22	ppb
Manganese	55-2	2670.81	2680.21	2574.17	2641.73	2.22	ppb
Molybdenum	94-1	2441.88	2509.64	2489.06	2480.19	1.40	ppb
Molybdenum	95-1	2447.50	2494.38	2499.79	2480.56	1.16	ppb
Molybdenum	96-1	2471.19	2486.66	2473.46	2477.10	0.34	ppb
Molybdenum	97-1	2495.78	2551.09	2491.05	2512.64	1.33	ppb
Molybdenum	98-1	2469.77	2520.10	2448.48	2479.45	1.48	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	257.37	258.98	254.59	256.98	0.87	ppb
Phosphorus	31-2	5357.36	5283.52	5233.29	5291.39	1.18	ppb
Potassium	39-2	12397.58	12393.71	12170.12	12320.47	1.06	ppb
Rhodium	103-1				93		%
Rhodium	103-2				94		%
Scandium	45-1				96		%
Scandium	45-2				96		%
Selenium	82-1	254.81	264.09	257.85	258.92	1.83	ppb
Selenium	77-2	254.40	240.66	250.77	248.61	2.86	ppb
Selenium	78-2	264.64	253.26	253.55	257.15	2.52	ppb
Silicon	28-1	265.44	272.55	268.54	268.84	1.33	ppb
Silver	107-1	251.17	249.53	257.37	252.69	1.64	ppb
Silver	109-1	259.08	259.36	263.43	260.63	0.93	ppb
Sodium	23-2	26216.27	25990.15	25957.69	26054.71	0.54	ppb
Strontium	86-1	251.86	252.64	252.55	252.35	0.17	ppb
Strontium	88-1	249.75	253.59	251.55	251.63	0.76	ppb
Sulfur	34-1	4780.46	4868.43	4765.80	4804.90	1.16	ppb
Terbium	159-1				99		%
Terbium	159-2				98		%
Thallium	203-1	242.52	251.13	240.86	244.83	2.25	ppb
Thallium	205-1	241.45	248.18	238.66	242.76	2.02	ppb
Tin	118-1	251.01	254.14	248.85	251.33	1.06	ppb
Titanium	47-1	2495.80	2511.79	2503.01	2503.53	0.32	ppb
Uranium	238-1	236.64	237.63	243.09	239.12	1.45	ppb

LB Number :LB135332Operator :Jaswal

Lab Sample ID :S5Instrumnet Name :P8

Client Sample ID :S5Dilution Factor :1

Date & Time Acquired :2025-04-07 11:45:39DataFile Name :009CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	265.89	261.97	261.64	263.17	0.90	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				96		%
Yttrium	89-2				95		%
Zinc	66-2	2707.22	2699.52	2711.84	2706.19	0.23	ppb
Zirconium	90-1	244.56	250.50	248.50	247.85	1.22	ppb
Zirconium	91-1	242.89	245.91	249.26	246.02	1.29	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S6 Instrumnet Name : P8
Client Sample ID : S6 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:48:26 DataFile Name : 010CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	10138.91	9789.36	9989.37	9972.55	1.76	ppb
Antimony	121-1	534.88	495.18	496.90	508.99	4.41	ppb
Arsenic	75-2	496.72	490.99	504.26	497.33	1.34	ppb
Barium	135-1	2670.62	2476.34	2484.95	2543.97	4.31	ppb
Barium	137-1	2660.25	2473.75	2489.97	2541.33	4.07	ppb
Beryllium	9-1	521.25	504.60	506.99	510.94	1.76	ppb
Bismuth	209-1				90		%
Bismuth	209-2				92		%
Bromine	81-1						cps
Cadmium	108-1	539.22	498.94	504.25	514.14	4.26	ppb
Cadmium	106-1	534.68	497.74	499.77	510.73	4.07	ppb
Cadmium	111-1	542.03	504.85	512.83	519.90	3.77	ppb
Calcium	43-1	55060.54	52543.75	51664.95	53089.75	3.32	ppb
Calcium	44-1	54942.23	52076.90	51172.71	52730.61	3.73	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	533.10	516.65	518.07	522.61	1.74	ppb
Cobalt	59-2	520.82	509.12	525.14	518.36	1.60	ppb
Copper	63-2	5252.93	5148.89	5286.18	5229.33	1.37	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				95		%
Holmium	165-2				97		%
Indium	115-1				89		%
Indium	115-2				88		%
Iron	54-2	27814.87	26798.58	27229.67	27281.04	1.87	ppb
Iron	56-2	27108.74	26281.30	26875.05	26755.03	1.59	ppb
Iron	57-2	26859.43	26173.08	26999.89	26677.47	1.66	ppb
Krypton	83-1						cps
Lead	206-1	2545.84	2455.49	2426.92	2476.08	2.51	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S6 Instrumnet Name : P8
Client Sample ID : S6 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:48:26 DataFile Name : 010CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2585.52	2478.39	2434.75	2499.55	3.10	ppb
Lead	208-1	2572.99	2476.26	2437.50	2495.58	2.80	ppb
Lithium	6-1				92		%
Magnesium	24-2	53116.15	52058.78	52835.91	52670.28	1.04	ppb
Manganese	55-2	5252.88	5111.56	5211.87	5192.10	1.40	ppb
Molybdenum	94-1	5251.18	4810.53	5038.61	5033.44	4.38	ppb
Molybdenum	95-1	5255.80	4769.11	4977.68	5000.86	4.88	ppb
Molybdenum	96-1	5253.72	4787.75	4977.28	5006.25	4.68	ppb
Molybdenum	97-1	5253.49	4868.70	4966.48	5029.56	3.98	ppb
Molybdenum	98-1	5300.78	4833.75	4941.34	5025.29	4.87	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	538.97	519.41	540.49	532.96	2.21	ppb
Phosphorus	31-2	10469.47	10278.78	10448.16	10398.81	1.00	ppb
Potassium	39-2	24831.95	24378.51	24440.93	24550.46	1.00	ppb
Rhodium	103-1				88		%
Rhodium	103-2				91		%
Scandium	45-1				92		%
Scandium	45-2				95		%
Selenium	82-1	529.60	493.18	509.59	510.79	3.57	ppb
Selenium	77-2	519.47	476.08	490.30	495.28	4.47	ppb
Selenium	78-2	513.27	498.12	506.89	506.09	1.50	ppb
Silicon	28-1	561.49	524.35	516.99	534.28	4.47	ppb
Silver	107-1	541.73	502.03	505.92	516.56	4.24	ppb
Silver	109-1	546.90	513.34	510.39	523.54	3.87	ppb
Sodium	23-2	52197.80	50734.63	51800.03	51577.49	1.47	ppb
Strontium	86-1	530.92	491.12	492.69	504.91	4.46	ppb
Strontium	88-1	531.31	495.88	498.01	508.40	3.91	ppb
Sulfur	34-1	10860.40	9853.93	9926.63	10213.65	5.50	ppb
Terbium	159-1				94		%
Terbium	159-2				97		%
Thallium	203-1	511.22	488.96	488.52	496.23	2.62	ppb
Thallium	205-1	510.34	487.60	490.24	496.06	2.51	ppb
Tin	118-1	535.24	500.62	498.39	511.42	4.04	ppb
Titanium	47-1	5347.37	5043.23	4985.36	5125.32	3.79	ppb
Uranium	238-1	513.19	488.72	490.17	497.36	2.76	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S6 Instrumnet Name : P8
Client Sample ID : S6 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:48:26 DataFile Name : 010CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	527.02	510.12	516.80	517.98	1.64	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				94		%
Yttrium	89-2				95		%
Zinc	66-2	5265.73	5099.56	5369.92	5245.07	2.60	ppb
Zirconium	90-1	524.10	490.28	497.62	504.00	3.53	ppb
Zirconium	91-1	523.09	479.19	492.25	498.18	4.52	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S7 Instrumnet Name : P8
Client Sample ID : S7 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:51:11 DataFile Name : 011CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	19373.47	19419.19	19215.99	19336.22	0.55	ppb
Antimony	121-1	997.26	990.55	998.86	995.56	0.44	ppb
Arsenic	75-2	1045.40	970.81	984.08	1000.10	3.98	ppb
Barium	135-1	4976.12	4970.69	5001.20	4982.67	0.33	ppb
Barium	137-1	4972.22	4994.38	4982.12	4982.91	0.22	ppb
Beryllium	9-1	995.64	982.95	994.79	991.13	0.72	ppb
Bismuth	209-1				88		%
Bismuth	209-2				89		%
Bromine	81-1						cps
Cadmium	108-1	993.26	985.29	994.07	990.87	0.49	ppb
Cadmium	106-1	995.73	986.98	999.08	993.93	0.63	ppb
Cadmium	111-1	993.57	986.75	982.32	987.55	0.57	ppb
Calcium	43-1	102828.49	103449.62	101610.56	102629.56	0.91	ppb
Calcium	44-1	101907.30	102525.53	100861.97	101764.93	0.83	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	985.88	985.11	976.71	982.57	0.52	ppb
Cobalt	59-2	983.34	982.85	986.27	984.16	0.19	ppb
Copper	63-2	9805.18	9803.04	9821.87	9810.03	0.11	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				96		%
Holmium	165-2				96		%
Indium	115-1				85		%
Indium	115-2				81		%
Iron	54-2	51135.82	51894.46	51407.27	51479.18	0.75	ppb
Iron	56-2	50208.45	50669.32	50494.04	50457.27	0.46	ppb
Iron	57-2	50882.91	50295.00	51107.54	50761.82	0.83	ppb
Krypton	83-1						cps
Lead	206-1	4930.20	5067.40	5065.23	5020.94	1.57	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S7 Instrumnet Name : P8
Client Sample ID : S7 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:51:11 DataFile Name : 011CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	4935.10	5029.79	5058.79	5007.89	1.29	ppb
Lead	208-1	4915.40	5048.31	5067.35	5010.36	1.65	ppb
Lithium	6-1				93		%
Magnesium	24-2	99916.01	99694.22	100371.67	99993.97	0.35	ppb
Manganese	55-2	9791.92	9952.59	9813.89	9852.80	0.88	ppb
Molybdenum	94-1	9953.65	10042.81	9964.77	9987.08	0.49	ppb
Molybdenum	95-1	10075.63	10053.65	9879.63	10002.97	1.07	ppb
Molybdenum	96-1	10081.12	10012.31	9909.28	10000.90	0.86	ppb
Molybdenum	97-1	9939.69	10030.96	9965.82	9978.83	0.47	ppb
Molybdenum	98-1	10053.31	9977.18	9942.12	9990.87	0.57	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	991.38	965.21	984.46	980.35	1.38	ppb
Phosphorus	31-2	19685.83	19827.43	19598.69	19703.98	0.59	ppb
Potassium	39-2	47540.98	47352.52	47192.81	47362.10	0.37	ppb
Rhodium	103-1				88		%
Rhodium	103-2				89		%
Scandium	45-1				96		%
Scandium	45-2				99		%
Selenium	82-1	1007.52	988.10	978.37	991.33	1.50	ppb
Selenium	77-2	1036.35	1001.33	967.68	1001.79	3.43	ppb
Selenium	78-2	1029.56	980.86	970.91	993.77	3.16	ppb
Silicon	28-1	976.71	985.51	967.67	976.63	0.91	ppb
Silver	107-1	983.59	1001.45	983.80	989.61	1.04	ppb
Silver	109-1	989.26	982.03	980.45	983.91	0.48	ppb
Sodium	23-2	98802.32	98385.03	100135.78	99107.71	0.92	ppb
Strontium	86-1	1001.11	1003.73	984.63	996.49	1.04	ppb
Strontium	88-1	997.92	999.62	987.83	995.12	0.64	ppb
Sulfur	34-1	19822.73	20185.06	19803.88	19937.22	1.08	ppb
Terbium	159-1				95		%
Terbium	159-2				96		%
Thallium	203-1	988.48	1020.29	1000.74	1003.17	1.60	ppb
Thallium	205-1	983.16	1021.90	1007.60	1004.22	1.95	ppb
Tin	118-1	993.74	994.97	991.36	993.36	0.19	ppb
Titanium	47-1	9869.64	10039.58	9883.79	9931.00	0.95	ppb
Uranium	238-1	992.97	1017.27	1003.84	1004.69	1.21	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S7 Instrumnet Name : P8
Client Sample ID : S7 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:51:11 DataFile Name : 011CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	977.04	990.13	992.00	986.39	0.83	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				94		%
Yttrium	89-2				93		%
Zinc	66-2	9867.95	9738.69	9798.26	9801.63	0.66	ppb
Zirconium	90-1	993.29	1000.41	1001.68	998.46	0.45	ppb
Zirconium	91-1	996.22	1011.88	998.13	1002.08	0.85	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S8 Instrumnet Name : P8
Client Sample ID : S8 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:54:02 DataFile Name : 012CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	97766.68	101669.67	100933.73	100123.36	2.07	ppb
Antimony	121-1	0.47	0.46	0.44	0.45	3.46	ppb
Arsenic	75-2	0.53	0.43	0.48	0.48	9.76	ppb
Barium	135-1	1.89	1.89	1.90	1.89	0.29	ppb
Barium	137-1	1.95	1.92	1.86	1.91	2.42	ppb
Beryllium	9-1	0.05	0.04	0.03	0.04	24.82	ppb
Bismuth	209-1				74		%
Bismuth	209-2				76		%
Bromine	81-1						cps
Cadmium	108-1	0.31	0.34	0.45	0.37	19.10	ppb
Cadmium	106-1	-0.31	-0.02	-0.17	-0.17		ppb
Cadmium	111-1	0.12	0.12	0.10	0.11	6.83	ppb
Calcium	43-1	500256.82	496621.98	500337.70	499072.17	0.43	ppb
Calcium	44-1	503972.20	495290.47	498643.37	499302.01	0.88	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	6.72	6.83	7.01	6.85	2.10	ppb
Cobalt	59-2	2.07	2.08	2.13	2.09	1.67	ppb
Copper	63-2	7.30	7.45	7.42	7.39	1.08	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				86		%
Holmium	165-2				89		%
Indium	115-1				79		%
Indium	115-2				85		%
Iron	54-2	245069.21	250721.72	252341.07	249377.33	1.53	ppb
Iron	56-2	248814.92	251358.57	248801.02	249658.17	0.59	ppb
Iron	57-2	245304.80	252416.87	251078.16	249599.94	1.51	ppb
Krypton	83-1						cps
Lead	206-1	3.85	3.97	3.81	3.87	2.11	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S8 Instrumnet Name : P8
Client Sample ID : S8 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:54:02 DataFile Name : 012CAL.S.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	3.80	3.94	3.79	3.84	2.29	ppb
Lead	208-1	3.85	3.92	3.81	3.86	1.45	ppb
Lithium	6-1				83		%
Magnesium	24-2	497712.99	502890.38	498228.41	499610.59	0.57	ppb
Manganese	55-2	4.88	4.86	4.78	4.84	1.10	ppb
Molybdenum	94-1	1.94	1.90	1.86	1.90	2.11	ppb
Molybdenum	95-1	1.26	1.25	1.21	1.24	2.27	ppb
Molybdenum	96-1	2.07	2.04	1.97	2.03	2.59	ppb
Molybdenum	97-1	1.30	1.19	1.17	1.22	5.83	ppb
Molybdenum	98-1	1.21	1.19	1.11	1.17	4.38	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	7.01	7.12	7.11	7.08	0.88	ppb
Phosphorus	31-2	-10.82	-17.73	-10.65	-13.07		ppb
Potassium	39-2	249778.76	250881.80	251068.97	250576.51	0.28	ppb
Rhodium	103-1				74		%
Rhodium	103-2				78		%
Scandium	45-1				86		%
Scandium	45-2				92		%
Selenium	82-1	0.76	0.60	0.95	0.77	23.15	ppb
Selenium	77-2	0.63	-0.21	-0.49	-0.03		ppb
Selenium	78-2	0.81	0.47	0.54	0.61	29.00	ppb
Silicon	28-1	3.82	3.36	4.52	3.90	15.01	ppb
Silver	107-1	0.10	0.09	0.08	0.09	10.94	ppb
Silver	109-1	0.10	0.10	0.08	0.09	9.29	ppb
Sodium	23-2	496251.93	504380.10	499195.79	499942.61	0.82	ppb
Strontium	86-1	3.18	3.18	3.15	3.17	0.63	ppb
Strontium	88-1	3.15	3.20	3.19	3.18	0.90	ppb
Sulfur	34-1	-378.46	-524.94	-485.72	-463.04		ppb
Terbium	159-1				86		%
Terbium	159-2				89		%
Thallium	203-1	0.08	0.07	0.06	0.07	12.00	ppb
Thallium	205-1	0.08	0.07	0.06	0.07	10.66	ppb
Tin	118-1	0.21	0.18	0.19	0.19	6.65	ppb
Titanium	47-1	0.80	0.74	0.79	0.78	4.09	ppb
Uranium	238-1	0.05	0.04	0.03	0.04	15.54	ppb

LB Number :LB135332Operator :Jaswal

Lab Sample ID :S8Instrumnet Name :P8

Client Sample ID :S8Dilution Factor :1

Date & Time Acquired :2025-04-07 11:54:02DataFile Name :012CALS.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.27	0.26	0.23	0.25	8.15	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				85		%
Yttrium	89-2				88		%
Zinc	66-2	16.25	16.47	16.56	16.43	0.98	ppb
Zirconium	90-1	0.46	0.46	0.44	0.45	2.56	ppb
Zirconium	91-1	0.46	0.46	0.44	0.46	2.06	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : ICV01 Instrumnet Name : P8
Client Sample ID : ICV01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 12:40:43 DataFile Name : 017ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	474.72	467.90	461.60	468.07	1.40	ppb
Antimony	121-1	197.66	196.77	195.62	196.68	0.52	ppb
Arsenic	75-2	195.42	194.38	197.17	195.66	0.72	ppb
Barium	135-1	94.72	96.25	96.13	95.70	0.89	ppb
Barium	137-1	101.06	100.15	97.68	99.63	1.76	ppb
Beryllium	9-1	94.49	93.96	95.30	94.58	0.72	ppb
Bismuth	209-1				100		%
Bismuth	209-2				98		%
Bromine	81-1						cps
Cadmium	108-1	176.03	179.18	177.81	177.67	0.89	ppb
Cadmium	106-1	186.50	188.23	185.36	186.70	0.77	ppb
Cadmium	111-1	104.79	107.35	106.04	106.06	1.21	ppb
Calcium	43-1	2222.98	2295.97	2277.26	2265.40	1.67	ppb
Calcium	44-1	2097.36	2130.83	2146.65	2124.95	1.18	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	100.72	98.00	98.52	99.08	1.46	ppb
Cobalt	59-2	105.38	103.90	103.91	104.40	0.82	ppb
Copper	63-2	94.29	92.25	93.46	93.33	1.10	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				101		%
Holmium	165-2				99		%
Indium	115-1				97		%
Indium	115-2				94		%
Iron	54-2	2100.70	2057.88	2081.79	2080.12	1.03	ppb
Iron	56-2	2062.34	1973.52	2029.60	2021.82	2.22	ppb
Iron	57-2	2002.87	1957.27	1985.79	1981.98	1.16	ppb
Krypton	83-1						cps
Lead	206-1	203.57	196.35	202.87	200.93	1.98	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : ICV01 Instrumnet Name : P8
Client Sample ID : ICV01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 12:40:43 DataFile Name : 017ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	197.49	191.14	200.22	196.28	2.37	ppb
Lead	208-1	199.09	194.76	201.59	198.48	1.74	ppb
Lithium	6-1				103		%
Magnesium	24-2	1198.84	1168.61	1187.12	1184.86	1.29	ppb
Manganese	55-2	95.30	91.95	93.85	93.70	1.80	ppb
Molybdenum	94-1	4774.48	4766.02	4797.65	4779.38	0.34	ppb
Molybdenum	95-1	4722.89	4690.01	4791.67	4734.86	1.10	ppb
Molybdenum	96-1	4751.81	4745.36	4723.99	4740.39	0.31	ppb
Molybdenum	97-1	4731.48	4838.19	4749.15	4772.94	1.20	ppb
Molybdenum	98-1	4704.94	4802.24	4698.12	4735.10	1.23	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	106.40	104.21	105.29	105.30	1.04	ppb
Phosphorus	31-2	-25.79	-22.98	-21.21	-23.32		ppb
Potassium	39-2	1872.31	1817.34	1830.42	1840.02	1.56	ppb
Rhodium	103-1				100		%
Rhodium	103-2				99		%
Scandium	45-1				102		%
Scandium	45-2				105		%
Selenium	82-1	196.23	202.45	200.99	199.89	1.63	ppb
Selenium	77-2	202.32	192.46	198.72	197.83	2.52	ppb
Selenium	78-2	201.55	195.34	211.09	202.66	3.91	ppb
Silicon	28-1	62.73	65.10	64.47	64.10	1.92	ppb
Silver	107-1	51.63	52.15	51.64	51.81	0.57	ppb
Silver	109-1	52.00	51.35	50.61	51.32	1.35	ppb
Sodium	23-2	2042.67	1971.61	2015.83	2010.04	1.79	ppb
Strontium	86-1	489.06	504.90	494.57	496.18	1.62	ppb
Strontium	88-1	493.06	504.72	500.88	499.55	1.19	ppb
Sulfur	34-1	-1013.29	-893.96	-932.74	-946.66		ppb
Terbium	159-1				100		%
Terbium	159-2				98		%
Thallium	203-1	199.88	192.20	197.74	196.61	2.02	ppb
Thallium	205-1	196.31	190.04	198.11	194.82	2.17	ppb
Tin	118-1	515.76	510.91	510.44	512.37	0.57	ppb
Titanium	47-1	4755.75	4867.72	4856.47	4826.65	1.28	ppb
Uranium	238-1	496.96	489.62	505.99	497.52	1.65	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : ICV01 Instrumnet Name : P8
Client Sample ID : ICV01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 12:40:43 DataFile Name : 017ICV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	96.43	94.84	95.85	95.71	0.84	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				102		%
Yttrium	89-2				102		%
Zinc	66-2	202.71	197.70	197.81	199.41	1.43	ppb
Zirconium	90-1	478.71	472.72	487.89	479.77	1.59	ppb
Zirconium	91-1	473.74	468.73	480.64	474.37	1.26	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : LLICV Instrumnet Name : P8
Client Sample ID : LLICV Dilution Factor : 1
Date & Time Acquired : 2025-04-07 12:44:45 DataFile Name : 018LLIC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	22.60	23.47	25.08	23.72	5.30	ppb
Antimony	121-1	1.91	1.90	1.88	1.89	0.81	ppb
Arsenic	75-2	0.99	1.03	0.92	0.98	5.95	ppb
Barium	135-1	9.29	9.09	9.22	9.20	1.13	ppb
Barium	137-1	9.24	9.22	9.30	9.25	0.45	ppb
Beryllium	9-1	1.09	1.01	1.03	1.04	3.98	ppb
Bismuth	209-1				99		%
Bismuth	209-2				98		%
Bromine	81-1						cps
Cadmium	108-1	0.92	0.95	0.91	0.92	1.97	ppb
Cadmium	106-1	0.58	0.00	-0.02	0.18	185.22	ppb
Cadmium	111-1	0.94	0.90	0.94	0.93	2.79	ppb
Calcium	43-1	508.80	527.22	530.45	522.15	2.24	ppb
Calcium	44-1	507.71	521.52	523.27	517.50	1.65	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	2.04	1.99	1.96	2.00	2.12	ppb
Cobalt	59-2	1.04	1.02	1.01	1.02	1.29	ppb
Copper	63-2	1.98	1.93	1.93	1.94	1.51	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				99		%
Holmium	165-2				98		%
Indium	115-1				100		%
Indium	115-2				99		%
Iron	54-2	54.91	52.64	52.74	53.43	2.40	ppb
Iron	56-2	51.26	51.09	55.08	52.48	4.30	ppb
Iron	57-2	50.23	51.79	47.93	49.98	3.89	ppb
Krypton	83-1						cps
Lead	206-1	0.91	0.94	0.92	0.92	1.85	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : LLICV Instrumnet Name : P8
Client Sample ID : LLICV Dilution Factor : 1
Date & Time Acquired : 2025-04-07 12:44:45 DataFile Name : 018LLIC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.94	0.98	0.92	0.95	2.98	ppb
Lead	208-1	0.93	0.94	0.93	0.94	0.60	ppb
Lithium	6-1				104		%
Magnesium	24-2	534.93	529.66	532.98	532.52	0.50	ppb
Manganese	55-2	0.95	0.99	1.02	0.99	3.50	ppb
Molybdenum	94-1	5.44	5.45	5.44	5.44	0.12	ppb
Molybdenum	95-1	4.51	4.58	4.57	4.55	0.91	ppb
Molybdenum	96-1	4.56	4.73	4.70	4.66	1.95	ppb
Molybdenum	97-1	4.68	4.68	4.68	4.68	0.03	ppb
Molybdenum	98-1	4.57	4.60	4.63	4.60	0.68	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.97	0.90	0.98	0.95	4.78	ppb
Phosphorus	31-2	36.71	27.90	17.13	27.24	35.99	ppb
Potassium	39-2	487.10	485.56	492.06	488.24	0.69	ppb
Rhodium	103-1				99		%
Rhodium	103-2				100		%
Scandium	45-1				103		%
Scandium	45-2				103		%
Selenium	82-1	4.98	5.01	4.72	4.90	3.22	ppb
Selenium	77-2	3.93	3.39	3.66	3.66	7.43	ppb
Selenium	78-2	5.76	4.52	4.63	4.97	13.78	ppb
Silicon	28-1	1.53	1.56	1.50	1.53	2.04	ppb
Silver	107-1	0.92	0.91	0.94	0.92	1.40	ppb
Silver	109-1	0.93	0.94	0.95	0.94	1.51	ppb
Sodium	23-2	539.50	529.83	529.31	532.88	1.08	ppb
Strontium	86-1	0.97	1.01	0.97	0.99	2.16	ppb
Strontium	88-1	1.01	1.02	1.02	1.01	0.67	ppb
Sulfur	34-1	-728.46	-561.28	-518.18	-602.64		ppb
Terbium	159-1				101		%
Terbium	159-2				99		%
Thallium	203-1	0.85	0.91	0.88	0.88	3.34	ppb
Thallium	205-1	0.87	0.89	0.88	0.88	1.15	ppb
Tin	118-1	4.77	4.72	4.78	4.76	0.71	ppb
Titanium	47-1	4.89	4.84	4.96	4.90	1.29	ppb
Uranium	238-1	0.87	0.89	0.88	0.88	1.09	ppb

LB Number :LB135332Operator :Jaswal

Lab Sample ID :LLICVInstrumnet Name :P8

Client Sample ID :LLICVDilution Factor :1

Date & Time Acquired :2025-04-07 12:44:45DataFile Name :018LLIC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	4.89	4.96	4.87	4.90	1.01	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				101		%
Yttrium	89-2				101		%
Zinc	66-2	4.66	4.81	4.83	4.77	1.93	ppb
Zirconium	90-1	0.90	0.92	0.91	0.91	1.20	ppb
Zirconium	91-1	0.88	0.89	0.91	0.89	1.59	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : ICB01 Instrumnet Name : P8
Client Sample ID : ICB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 12:48:18 DataFile Name : 019CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	2.57	2.05	1.71	2.11	20.47	ppb
Antimony	121-1	0.01	0.01	0.01	0.01	11.47	ppb
Arsenic	75-2	0.00	0.01	0.00	0.01	33.92	ppb
Barium	135-1	0.00	0.01	0.00	0.00	182.98	ppb
Barium	137-1	0.00	0.00	0.00	0.00		ppb
Beryllium	9-1	0.01	0.01	0.01	0.01	22.05	ppb
Bismuth	209-1				99		%
Bismuth	209-2				97		%
Bromine	81-1						cps
Cadmium	108-1	0.02	-0.01	-0.01	0.00		ppb
Cadmium	106-1	-1.01	-1.04	-0.74	-0.93		ppb
Cadmium	111-1	-0.08	-0.08	-0.06	-0.07		ppb
Calcium	43-1	-3.62	-1.95	-1.43	-2.33		ppb
Calcium	44-1	1.11	2.19	2.59	1.96	38.98	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	0.06	0.10	-0.01	0.05	110.71	ppb
Cobalt	59-2	0.00	0.00	0.00	0.00		ppb
Copper	63-2	0.07	0.06	0.07	0.06	3.57	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				98		%
Holmium	165-2				98		%
Indium	115-1				100		%
Indium	115-2				99		%
Iron	54-2	0.34	0.18	0.21	0.24	34.87	ppb
Iron	56-2	0.17	0.02	1.75	0.65	147.35	ppb
Iron	57-2	0.31	-0.56	0.67	0.14	445.41	ppb
Krypton	83-1						cps
Lead	206-1	0.04	0.04	0.04	0.04	2.86	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : ICB01 Instrumnet Name : P8
Client Sample ID : ICB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 12:48:18 DataFile Name : 019CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.04	0.04	0.04	0.04	8.26	ppb
Lead	208-1	0.04	0.04	0.04	0.04	6.02	ppb
Lithium	6-1				103		%
Magnesium	24-2	1.24	1.10	1.37	1.23	11.08	ppb
Manganese	55-2	-0.03	0.00	0.01	-0.01		ppb
Molybdenum	94-1	0.05	0.05	0.03	0.04	21.01	ppb
Molybdenum	95-1	0.04	0.03	0.03	0.03	16.08	ppb
Molybdenum	96-1	0.05	0.04	0.03	0.04	20.21	ppb
Molybdenum	97-1	0.04	0.03	0.03	0.04	15.42	ppb
Molybdenum	98-1	0.04	0.04	0.04	0.04	6.00	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.02	-0.01	0.00	-0.01		ppb
Phosphorus	31-2	-15.34	-16.82	-14.77	-15.64		ppb
Potassium	39-2	16.81	16.83	17.71	17.12	3.02	ppb
Rhodium	103-1				98		%
Rhodium	103-2				100		%
Scandium	45-1				102		%
Scandium	45-2				102		%
Selenium	82-1	0.05	0.13	-0.01	0.06	127.54	ppb
Selenium	77-2	0.00	-0.49	-0.49	-0.33		ppb
Selenium	78-2	0.05	0.19	0.64	0.29	105.62	ppb
Silicon	28-1	0.36	0.36	0.40	0.37	5.56	ppb
Silver	107-1	0.01	0.01	0.01	0.01	9.45	ppb
Silver	109-1	0.01	0.01	0.01	0.01	9.06	ppb
Sodium	23-2	26.54	24.55	25.51	25.53	3.90	ppb
Strontium	86-1	0.01	0.01	0.01	0.01	32.37	ppb
Strontium	88-1	0.01	0.01	0.01	0.01	7.92	ppb
Sulfur	34-1	-671.82	-558.96	-512.87	-581.22		ppb
Terbium	159-1				99		%
Terbium	159-2				98		%
Thallium	203-1	0.02	0.01	0.01	0.01	14.46	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	2.96	ppb
Tin	118-1	-0.02	-0.02	-0.03	-0.02		ppb
Titanium	47-1	0.05	0.04	0.03	0.04	18.39	ppb
Uranium	238-1	0.00	0.00	0.00	0.00	6.37	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : ICB01 Instrumnet Name : P8
Client Sample ID : ICB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 12:48:18 DataFile Name : 019CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	0.00	0.00	0.00		ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				99		%
Yttrium	89-2				100		%
Zinc	66-2	-0.30	-0.38	-0.39	-0.36		ppb
Zirconium	90-1	0.01	0.01	0.01	0.01	12.55	ppb
Zirconium	91-1	0.01	0.01	0.01	0.01	16.01	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : ICSA01 Instrumnet Name : P8
Client Sample ID : ICSA01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 12:57:28 DataFile Name : 021ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	96195.41	96607.86	91631.59	94811.62	2.91	ppb
Antimony	121-1	1.23	1.26	1.22	1.24	1.78	ppb
Arsenic	75-2	0.35	0.42	0.35	0.37	11.77	ppb
Barium	135-1	1.37	1.48	1.38	1.41	4.36	ppb
Barium	137-1	1.42	1.43	1.40	1.42	0.96	ppb
Beryllium	9-1	-0.35	-0.36	-0.35	-0.36		ppb
Bismuth	209-1				86		%
Bismuth	209-2				86		%
Bromine	81-1						cps
Cadmium	108-1	14.08	14.32	14.71	14.37	2.23	ppb
Cadmium	106-1	-0.87	-0.91	-1.16	-0.98		ppb
Cadmium	111-1	0.54	0.48	0.46	0.49	9.13	ppb
Calcium	43-1	100876.13	101023.21	99237.66	100379.00	0.99	ppb
Calcium	44-1	100036.23	99808.31	98940.18	99594.90	0.58	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	19.63	19.36	19.12	19.37	1.31	ppb
Cobalt	59-2	1.16	1.14	1.15	1.15	1.10	ppb
Copper	63-2	7.04	6.82	6.77	6.88	2.10	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				95		%
Holmium	165-2				95		%
Indium	115-1				94		%
Indium	115-2				93		%
Iron	54-2	104043.20	103782.29	101967.27	103264.26	1.10	ppb
Iron	56-2	102975.95	102849.84	101564.29	102463.36	0.76	ppb
Iron	57-2	103720.77	101215.68	100589.59	101842.01	1.63	ppb
Krypton	83-1						cps
Lead	206-1	4.57	4.55	4.59	4.57	0.46	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : ICSA01 Instrumnet Name : P8
Client Sample ID : ICSA01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 12:57:28 DataFile Name : 021ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	4.28	4.25	4.24	4.26	0.54	ppb
Lead	208-1	4.39	4.35	4.38	4.37	0.47	ppb
Lithium	6-1				101		%
Magnesium	24-2	103740.77	102261.37	99879.73	101960.62	1.91	ppb
Manganese	55-2	6.97	6.78	6.59	6.78	2.82	ppb
Molybdenum	94-1	1583.03	1529.04	1547.41	1553.16	1.77	ppb
Molybdenum	95-1	1908.64	1857.42	1870.12	1878.73	1.42	ppb
Molybdenum	96-1	1860.56	1820.91	1841.96	1841.14	1.08	ppb
Molybdenum	97-1	1913.64	1880.67	1888.31	1894.21	0.91	ppb
Molybdenum	98-1	1924.23	1856.79	1890.25	1890.43	1.78	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	5.23	5.33	5.22	5.26	1.19	ppb
Phosphorus	31-2	111462.64	110975.73	107327.72	109922.03	2.06	ppb
Potassium	39-2	102327.11	101078.49	101339.72	101581.78	0.65	ppb
Rhodium	103-1				88		%
Rhodium	103-2				90		%
Scandium	45-1				103		%
Scandium	45-2				104		%
Selenium	82-1	0.07	0.02	0.19	0.10	90.96	ppb
Selenium	77-2	-0.24	-0.49	-0.25	-0.33		ppb
Selenium	78-2	0.28	0.26	0.41	0.32	26.17	ppb
Silicon	28-1	3.24	3.18	3.09	3.17	2.42	ppb
Silver	107-1	0.03	0.04	0.05	0.04	22.94	ppb
Silver	109-1	0.03	0.04	0.04	0.04	12.82	ppb
Sodium	23-2	110689.57	107381.91	107565.92	108545.80	1.71	ppb
Strontium	86-1	32.80	32.00	32.19	32.33	1.29	ppb
Strontium	88-1	34.35	34.20	34.29	34.28	0.22	ppb
Sulfur	34-1	104731.56	104678.31	104267.33	104559.07	0.24	ppb
Terbium	159-1				95		%
Terbium	159-2				94		%
Thallium	203-1	0.06	0.08	0.09	0.07	19.77	ppb
Thallium	205-1	0.06	0.07	0.09	0.07	19.23	ppb
Tin	118-1	0.12	0.10	0.11	0.11	8.37	ppb
Titanium	47-1	2025.68	2051.69	2026.60	2034.66	0.73	ppb
Uranium	238-1	0.02	0.02	0.02	0.02	1.74	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : ICSA01 Instrumnet Name : P8
Client Sample ID : ICSA01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 12:57:28 DataFile Name : 021ICSA.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.15	0.14	0.14	0.14	2.71	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				98		%
Yttrium	89-2				100		%
Zinc	66-2	11.53	11.27	10.68	11.16	3.88	ppb
Zirconium	90-1	0.03	0.03	0.03	0.03	14.76	ppb
Zirconium	91-1	0.03	0.03	0.04	0.03	14.94	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : ICSAB01 Instrumnet Name : P8
Client Sample ID : ICSAB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:04:20 DataFile Name : 023ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	98083.33	96183.92	94302.95	96190.07	1.97	ppb
Antimony	121-1	21.23	21.25	21.54	21.34	0.82	ppb
Arsenic	75-2	21.18	20.83	21.04	21.02	0.84	ppb
Barium	135-1	20.94	21.22	21.15	21.10	0.69	ppb
Barium	137-1	21.65	21.35	21.40	21.47	0.75	ppb
Beryllium	9-1	21.13	21.42	21.32	21.29	0.70	ppb
Bismuth	209-1				88		%
Bismuth	209-2				86		%
Bromine	81-1						cps
Cadmium	108-1	36.86	36.77	36.52	36.72	0.48	ppb
Cadmium	106-1	25.20	25.07	25.47	25.25	0.81	ppb
Cadmium	111-1	20.89	20.56	20.79	20.75	0.81	ppb
Calcium	43-1	105368.03	101887.36	103424.57	103559.98	1.68	ppb
Calcium	44-1	103464.61	101632.62	102761.76	102619.66	0.90	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	40.40	39.66	38.71	39.59	2.14	ppb
Cobalt	59-2	20.88	21.04	20.54	20.82	1.22	ppb
Copper	63-2	24.83	25.03	24.21	24.69	1.72	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				96		%
Holmium	165-2				95		%
Indium	115-1				94		%
Indium	115-2				94		%
Iron	54-2	102715.42	103597.81	100122.06	102145.10	1.77	ppb
Iron	56-2	102345.12	102501.47	99734.12	101526.90	1.53	ppb
Iron	57-2	101610.24	102724.46	99757.30	101364.00	1.48	ppb
Krypton	83-1						cps
Lead	206-1	24.08	24.46	24.44	24.33	0.88	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : ICSAB01 Instrumnet Name : P8
Client Sample ID : ICSAB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:04:20 DataFile Name : 023ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	23.25	23.74	23.47	23.49	1.05	ppb
Lead	208-1	23.49	23.96	23.76	23.73	0.98	ppb
Lithium	6-1				103		%
Magnesium	24-2	103930.34	104254.69	102095.06	103426.69	1.13	ppb
Manganese	55-2	24.94	25.33	24.37	24.88	1.94	ppb
Molybdenum	94-1	1690.50	1690.03	1678.17	1686.23	0.41	ppb
Molybdenum	95-1	1937.55	1971.44	1929.71	1946.24	1.14	ppb
Molybdenum	96-1	1909.93	1930.12	1912.12	1917.39	0.58	ppb
Molybdenum	97-1	1923.98	1945.64	1955.13	1941.59	0.82	ppb
Molybdenum	98-1	1918.19	1941.77	1969.17	1943.05	1.31	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	24.40	24.27	23.94	24.20	0.99	ppb
Phosphorus	31-2	112672.81	111676.85	108978.79	111109.48	1.72	ppb
Potassium	39-2	102722.16	103597.87	102907.53	103075.85	0.45	ppb
Rhodium	103-1				89		%
Rhodium	103-2				91		%
Scandium	45-1				105		%
Scandium	45-2				110		%
Selenium	82-1	21.59	21.52	20.62	21.24	2.54	ppb
Selenium	77-2	19.09	22.22	21.97	21.10	8.25	ppb
Selenium	78-2	20.69	19.27	21.53	20.50	5.57	ppb
Silicon	28-1	9.77	9.74	9.93	9.81	1.03	ppb
Silver	107-1	18.91	18.85	18.87	18.88	0.15	ppb
Silver	109-1	19.00	18.86	18.86	18.91	0.44	ppb
Sodium	23-2	110301.52	110767.96	108231.04	109766.84	1.23	ppb
Strontium	86-1	78.73	79.47	79.03	79.08	0.47	ppb
Strontium	88-1	81.76	81.39	82.55	81.90	0.72	ppb
Sulfur	34-1	106386.63	104694.36	106717.77	105932.92	1.02	ppb
Terbium	159-1				96		%
Terbium	159-2				95		%
Thallium	203-1	19.32	19.56	19.37	19.42	0.66	ppb
Thallium	205-1	19.55	19.63	19.70	19.62	0.38	ppb
Tin	118-1	46.40	47.09	46.62	46.71	0.75	ppb
Titanium	47-1	2086.68	2074.45	2104.35	2088.49	0.72	ppb
Uranium	238-1	46.80	47.25	48.08	47.38	1.37	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : ICSAB01 Instrumnet Name : P8
Client Sample ID : ICSAB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:04:20 DataFile Name : 023ICSB.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	20.55	20.61	20.17	20.45	1.18	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				99		%
Yttrium	89-2				104		%
Zinc	66-2	31.64	31.95	31.24	31.61	1.12	ppb
Zirconium	90-1	47.48	47.16	47.32	47.32	0.34	ppb
Zirconium	91-1	44.99	44.54	44.63	44.72	0.53	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCV01 Instrumnet Name : P8
Client Sample ID : CCV01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:07:30 DataFile Name : 024CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	53047.49	53624.18	52746.67	53139.45	0.84	ppb
Antimony	121-1	520.80	515.85	521.15	519.27	0.57	ppb
Arsenic	75-2	509.80	509.80	518.93	512.84	1.03	ppb
Barium	135-1	2556.22	2591.85	2607.11	2585.06	1.01	ppb
Barium	137-1	2549.99	2595.89	2618.62	2588.16	1.35	ppb
Beryllium	9-1	537.75	542.89	535.66	538.76	0.69	ppb
Bismuth	209-1				80		%
Bismuth	209-2				81		%
Bromine	81-1						cps
Cadmium	108-1	506.77	507.66	511.21	508.55	0.46	ppb
Cadmium	106-1	507.58	512.81	515.16	511.85	0.76	ppb
Cadmium	111-1	501.51	514.06	513.62	509.73	1.40	ppb
Calcium	43-1	260946.14	260597.98	257168.80	259570.97	0.80	ppb
Calcium	44-1	256580.38	261909.54	255216.41	257902.11	1.37	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	518.13	514.86	508.06	513.68	1.00	ppb
Cobalt	59-2	482.29	487.01	478.65	482.65	0.87	ppb
Copper	63-2	4618.97	4703.96	4604.50	4642.48	1.16	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				91		%
Holmium	165-2				93		%
Indium	115-1				85		%
Indium	115-2				86		%
Iron	54-2	127087.10	127076.75	126800.26	126988.04	0.13	ppb
Iron	56-2	125982.82	125443.11	126497.52	125974.48	0.42	ppb
Iron	57-2	123654.15	123880.00	123198.75	123577.63	0.28	ppb
Krypton	83-1						cps
Lead	206-1	2556.95	2542.13	2532.67	2543.92	0.48	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCV01 Instrumnet Name : P8
Client Sample ID : CCV01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:07:30 DataFile Name : 024CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2564.03	2574.61	2515.30	2551.31	1.24	ppb
Lead	208-1	2551.90	2574.90	2525.21	2550.67	0.97	ppb
Lithium	6-1				96		%
Magnesium	24-2	268860.47	261646.55	271517.95	267341.66	1.91	ppb
Manganese	55-2	5060.79	5093.13	5052.91	5068.94	0.42	ppb
Molybdenum	94-1	4999.14	4990.55	5047.27	5012.32	0.61	ppb
Molybdenum	95-1	4888.32	4982.08	5001.63	4957.35	1.22	ppb
Molybdenum	96-1	4926.04	4965.96	5004.45	4965.48	0.79	ppb
Molybdenum	97-1	4940.50	5001.16	5004.86	4982.17	0.73	ppb
Molybdenum	98-1	4906.49	4993.98	4948.94	4949.80	0.88	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	474.18	483.40	489.61	482.40	1.61	ppb
Phosphorus	31-2	10775.43	10975.43	10919.80	10890.22	0.95	ppb
Potassium	39-2	129644.97	130158.16	132115.40	130639.51	1.00	ppb
Rhodium	103-1				83		%
Rhodium	103-2				86		%
Scandium	45-1				101		%
Scandium	45-2				108		%
Selenium	82-1	492.94	493.25	496.75	494.31	0.43	ppb
Selenium	77-2	496.69	490.06	500.58	495.78	1.07	ppb
Selenium	78-2	510.11	507.77	509.92	509.27	0.26	ppb
Silicon	28-1	502.14	497.41	484.05	494.53	1.90	ppb
Silver	107-1	496.56	501.53	511.21	503.10	1.48	ppb
Silver	109-1	496.22	508.79	507.13	504.05	1.35	ppb
Sodium	23-2	267982.33	267874.76	271141.89	268999.66	0.69	ppb
Strontium	86-1	505.63	502.80	513.92	507.45	1.14	ppb
Strontium	88-1	505.91	509.86	514.63	510.13	0.86	ppb
Sulfur	34-1	11286.51	11263.74	11058.78	11203.01	1.12	ppb
Terbium	159-1				90		%
Terbium	159-2				92		%
Thallium	203-1	510.75	511.32	511.47	511.18	0.07	ppb
Thallium	205-1	507.22	502.46	505.04	504.91	0.47	ppb
Tin	118-1	517.25	517.45	520.74	518.48	0.38	ppb
Titanium	47-1	5115.66	5016.59	5104.31	5078.85	1.07	ppb
Uranium	238-1	518.50	525.97	523.19	522.56	0.72	ppb

LB Number :LB135332Operator :Jaswal

Lab Sample ID :CCV01Instrumnet Name :P8

Client Sample ID :CCV01Dilution Factor :1

Date & Time Acquired :2025-04-07 13:07:30DataFile Name :024CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	521.60	516.48	520.45	519.51	0.52	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				94		%
Yttrium	89-2				101		%
Zinc	66-2	5433.40	5451.53	5421.30	5435.41	0.28	ppb
Zirconium	90-1	499.97	507.72	514.36	507.35	1.42	ppb
Zirconium	91-1	493.46	505.96	505.99	501.81	1.44	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCB01 Instrumnet Name : P8
Client Sample ID : CCB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:17:26 DataFile Name : 026CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	-0.19	-0.34	-0.01	-0.18		ppb
Antimony	121-1	0.01	0.01	0.01	0.01	2.88	ppb
Arsenic	75-2	0.00	0.00	0.00	0.00		ppb
Barium	135-1	0.01	0.00	0.01	0.01	34.56	ppb
Barium	137-1	0.00	0.00	0.00	0.00		ppb
Beryllium	9-1	0.00	0.01	0.00	0.01	40.72	ppb
Bismuth	209-1				101		%
Bismuth	209-2				101		%
Bromine	81-1						cps
Cadmium	108-1	0.01	0.00	-0.01	0.00	344.00	ppb
Cadmium	106-1	-0.67	-0.42	-0.88	-0.66		ppb
Cadmium	111-1	-0.05	-0.03	-0.07	-0.05		ppb
Calcium	43-1	-8.97	-10.21	-9.22	-9.47		ppb
Calcium	44-1	-4.90	-5.67	-5.72	-5.43		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.35	-0.28	-0.35	-0.33		ppb
Cobalt	59-2	-0.01	-0.01	-0.01	-0.01		ppb
Copper	63-2	0.02	-0.01	0.00	0.00	372.19	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				101		%
Holmium	165-2				102		%
Indium	115-1				105		%
Indium	115-2				107		%
Iron	54-2	-1.68	-1.21	-1.45	-1.45		ppb
Iron	56-2	-1.15	-1.21	-1.45	-1.27		ppb
Iron	57-2	-0.75	-0.80	-1.31	-0.95		ppb
Krypton	83-1						cps
Lead	206-1	0.04	0.04	0.05	0.04	11.87	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCB01 Instrumnet Name : P8
Client Sample ID : CCB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:17:26 DataFile Name : 026CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.05	0.04	0.04	0.04	10.13	ppb
Lead	208-1	0.04	0.04	0.04	0.04	2.38	ppb
Lithium	6-1				115		%
Magnesium	24-2	0.60	0.64	0.70	0.65	8.17	ppb
Manganese	55-2	-0.08	-0.05	-0.04	-0.06		ppb
Molybdenum	94-1	0.04	0.03	0.03	0.03	21.02	ppb
Molybdenum	95-1	0.02	0.01	0.02	0.02	10.63	ppb
Molybdenum	96-1	0.02	0.02	0.02	0.02	22.74	ppb
Molybdenum	97-1	0.01	0.02	0.01	0.02	26.05	ppb
Molybdenum	98-1	0.02	0.02	0.02	0.02	14.13	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.23	-0.25	-0.23	-0.24		ppb
Phosphorus	31-2	-20.37	-22.28	-21.08	-21.24		ppb
Potassium	39-2	28.64	28.65	27.90	28.40	1.51	ppb
Rhodium	103-1				105		%
Rhodium	103-2				108		%
Scandium	45-1				115		%
Scandium	45-2				117		%
Selenium	82-1	-0.05	0.01	0.01	-0.01		ppb
Selenium	77-2	-0.49	-0.49	-0.49	-0.49		ppb
Selenium	78-2	-0.02	-0.48	0.12	-0.13		ppb
Silicon	28-1	0.10	0.03	0.13	0.09	58.74	ppb
Silver	107-1	0.01	0.01	0.01	0.01	17.38	ppb
Silver	109-1	0.01	0.01	0.01	0.01	11.56	ppb
Sodium	23-2	42.99	41.65	41.66	42.10	1.83	ppb
Strontium	86-1	0.00	0.00	0.01	0.00	363.10	ppb
Strontium	88-1	0.00	0.00	0.00	0.00		ppb
Sulfur	34-1	-297.79	-365.66	-325.12	-329.52		ppb
Terbium	159-1				102		%
Terbium	159-2				103		%
Thallium	203-1	0.02	0.02	0.02	0.02	1.12	ppb
Thallium	205-1	0.02	0.02	0.02	0.02	6.68	ppb
Tin	118-1	-0.04	-0.05	-0.05	-0.05		ppb
Titanium	47-1	0.05	0.03	0.05	0.04	29.46	ppb
Uranium	238-1	0.00	0.00	0.00	0.00		ppb

LB Number :LB135332Operator :Jaswal

Lab Sample ID :CCB01Instrumnet Name :P8

Client Sample ID :CCB01Dilution Factor :1

Date & Time Acquired :2025-04-07 13:17:26DataFile Name :026CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	-0.01	0.00	0.00		ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				106		%
Yttrium	89-2				111		%
Zinc	66-2	-1.06	-1.18	-1.17	-1.14		ppb
Zirconium	90-1	0.01	0.00	0.00	0.00	32.10	ppb
Zirconium	91-1	0.01	0.00	0.01	0.01	33.88	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CRI Instrumnet Name : P8
Client Sample ID : CRI Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:20:50 DataFile Name : 027LLCC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	23.75	24.82	25.01	24.53	2.78	ppb
Antimony	121-1	1.89	1.95	1.92	1.92	1.57	ppb
Arsenic	75-2	0.98	1.07	1.03	1.03	4.45	ppb
Barium	135-1	9.08	9.36	9.23	9.22	1.54	ppb
Barium	137-1	9.18	9.50	9.43	9.37	1.77	ppb
Beryllium	9-1	0.99	1.01	1.01	1.00	1.29	ppb
Bismuth	209-1				102		%
Bismuth	209-2				101		%
Bromine	81-1						cps
Cadmium	108-1	0.92	0.95	0.83	0.90	7.05	ppb
Cadmium	106-1	0.13	0.57	0.26	0.32	70.77	ppb
Cadmium	111-1	0.93	0.98	0.94	0.95	2.57	ppb
Calcium	43-1	514.65	502.70	506.84	508.06	1.19	ppb
Calcium	44-1	531.67	527.76	518.97	526.14	1.24	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	1.83	1.90	1.90	1.87	2.25	ppb
Cobalt	59-2	1.00	0.99	1.00	1.00	0.77	ppb
Copper	63-2	1.84	1.87	1.88	1.86	1.00	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				102		%
Holmium	165-2				102		%
Indium	115-1				105		%
Indium	115-2				106		%
Iron	54-2	50.99	52.92	50.93	51.62	2.19	ppb
Iron	56-2	48.90	49.76	49.04	49.23	0.94	ppb
Iron	57-2	49.36	48.93	47.21	48.50	2.35	ppb
Krypton	83-1						cps
Lead	206-1	0.88	0.91	0.90	0.90	1.64	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CRI Instrumnet Name : P8
Client Sample ID : CRI Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:20:50 DataFile Name : 027LLCC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.89	0.94	0.91	0.91	3.03	ppb
Lead	208-1	0.89	0.93	0.91	0.91	2.10	ppb
Lithium	6-1				115		%
Magnesium	24-2	544.43	543.11	536.82	541.45	0.75	ppb
Manganese	55-2	0.96	1.02	1.00	1.00	3.28	ppb
Molybdenum	94-1	5.27	5.28	5.41	5.32	1.42	ppb
Molybdenum	95-1	4.42	4.40	4.52	4.45	1.45	ppb
Molybdenum	96-1	4.51	4.43	4.58	4.51	1.72	ppb
Molybdenum	97-1	4.47	4.42	4.52	4.47	1.15	ppb
Molybdenum	98-1	4.40	4.41	4.56	4.46	1.98	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.87	0.83	0.90	0.87	4.11	ppb
Phosphorus	31-2	29.89	29.32	18.94	26.05	23.67	ppb
Potassium	39-2	504.30	517.73	517.12	513.05	1.48	ppb
Rhodium	103-1				105		%
Rhodium	103-2				107		%
Scandium	45-1				116		%
Scandium	45-2				117		%
Selenium	82-1	4.74	5.01	4.99	4.91	3.12	ppb
Selenium	77-2	7.25	5.73	5.23	6.07	17.36	ppb
Selenium	78-2	5.06	4.95	5.29	5.10	3.36	ppb
Silicon	28-1	1.12	0.97	0.96	1.02	8.60	ppb
Silver	107-1	0.90	0.96	0.92	0.93	3.15	ppb
Silver	109-1	0.91	0.98	0.94	0.94	3.95	ppb
Sodium	23-2	561.22	568.64	563.39	564.42	0.68	ppb
Strontium	86-1	0.99	0.96	1.00	0.98	2.27	ppb
Strontium	88-1	1.00	1.01	1.03	1.01	1.28	ppb
Sulfur	34-1	-173.62	-258.09	-255.86	-229.19		ppb
Terbium	159-1				103		%
Terbium	159-2				102		%
Thallium	203-1	0.83	0.89	0.85	0.86	3.22	ppb
Thallium	205-1	0.86	0.87	0.86	0.86	0.96	ppb
Tin	118-1	4.73	4.88	4.97	4.86	2.54	ppb
Titanium	47-1	4.77	4.67	4.63	4.69	1.50	ppb
Uranium	238-1	0.84	0.84	0.84	0.84	0.53	ppb

LB Number :LB135332

Operator :Jaswal

Lab Sample ID :CRI

Instrumnet Name :P8

Client Sample ID :CRI

Dilution Factor :1

Date & Time Acquired :2025-04-07 13:20:50

DataFile Name :027LLCC.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	4.72	4.85	4.74	4.77	1.51	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				107		%
Yttrium	89-2				111		%
Zinc	66-2	4.55	4.52	4.45	4.51	1.11	ppb
Zirconium	90-1	0.85	0.87	0.90	0.87	3.27	ppb
Zirconium	91-1	0.84	0.87	0.89	0.87	3.21	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-12 Instrumnet Name : P8
Client Sample ID : MW-17B-55-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:24:11 DataFile Name : 028AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	36.74	35.57	35.80	36.04	1.71	ppb
Antimony	121-1	0.29	0.29	0.28	0.29	0.92	ppb
Arsenic	75-2	0.80	0.79	0.72	0.77	5.72	ppb
Barium	135-1	413.42	420.86	408.62	414.30	1.49	ppb
Barium	137-1	413.50	425.30	411.76	416.85	1.77	ppb
Beryllium	9-1	-4.61	-4.75	-4.69	-4.69		ppb
Bismuth	209-1				99		%
Bismuth	209-2				99		%
Bromine	81-1						cps
Cadmium	108-1	0.11	0.21	0.11	0.15	38.02	ppb
Cadmium	106-1	-0.76	-0.39	-0.99	-0.71		ppb
Cadmium	111-1	-0.05	-0.02	-0.06	-0.04		ppb
Calcium	43-1	26942.32	27383.75	27326.79	27217.62	0.88	ppb
Calcium	44-1	26928.60	27086.05	27064.98	27026.54	0.32	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-1.32	-1.30	-1.32	-1.31		ppb
Cobalt	59-2	6.28	6.35	6.26	6.30	0.75	ppb
Copper	63-2	0.10	0.10	0.09	0.09	9.06	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				102		%
Holmium	165-2				102		%
Indium	115-1				104		%
Indium	115-2				105		%
Iron	54-2	5607.32	5619.17	5536.19	5587.56	0.80	ppb
Iron	56-2	5481.41	5415.77	5354.58	5417.25	1.17	ppb
Iron	57-2	5204.79	5256.98	5099.81	5187.19	1.54	ppb
Krypton	83-1						cps
Lead	206-1	0.20	0.20	0.20	0.20	1.47	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-12 Instrumnet Name : P8
Client Sample ID : MW-17B-55-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:24:11 DataFile Name : 028AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.19	0.19	0.19	0.19	1.01	ppb
Lead	208-1	0.19	0.19	0.19	0.19	0.05	ppb
Lithium	6-1				117		%
Magnesium	24-2	8761.28	8790.91	8514.46	8688.88	1.75	ppb
Manganese	55-2	501.58	491.76	478.13	490.49	2.40	ppb
Molybdenum	94-1	15.90	16.34	16.07	16.10	1.37	ppb
Molybdenum	95-1	19.21	19.43	19.43	19.36	0.65	ppb
Molybdenum	96-1	18.75	19.11	18.89	18.92	0.97	ppb
Molybdenum	97-1	19.53	19.71	19.64	19.63	0.45	ppb
Molybdenum	98-1	19.41	19.23	19.28	19.31	0.48	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	8.20	8.35	7.85	8.13	3.16	ppb
Phosphorus	31-2	309.90	314.17	296.80	306.96	2.95	ppb
Potassium	39-2	8302.42	8261.96	8184.34	8249.57	0.73	ppb
Rhodium	103-1				102		%
Rhodium	103-2				105		%
Scandium	45-1				117		%
Scandium	45-2				117		%
Selenium	82-1	0.28	0.41	0.40	0.36	19.21	ppb
Selenium	77-2	-0.05	-0.49	-0.27	-0.27		ppb
Selenium	78-2	0.12	0.59	0.31	0.34	69.85	ppb
Silicon	28-1	2673.09	2709.30	2692.23	2691.54	0.67	ppb
Silver	107-1	0.01	0.01	0.01	0.01	7.71	ppb
Silver	109-1	0.01	0.01	0.01	0.01	3.38	ppb
Sodium	23-2	7519.11	7620.04	7318.95	7486.03	2.05	ppb
Strontium	86-1	259.22	267.01	265.48	263.91	1.56	ppb
Strontium	88-1	257.38	265.38	265.42	262.73	1.76	ppb
Sulfur	34-1	826.80	732.16	645.46	734.81	12.34	ppb
Terbium	159-1				101		%
Terbium	159-2				102		%
Thallium	203-1	0.22	0.23	0.22	0.22	1.42	ppb
Thallium	205-1	0.22	0.23	0.23	0.23	0.94	ppb
Tin	118-1	0.29	0.30	0.29	0.29	1.86	ppb
Titanium	47-1	1.39	1.40	1.37	1.39	1.01	ppb
Uranium	238-1	0.01	0.01	0.01	0.01	4.21	ppb

LB Number :LB135332Operator :Jaswal

Lab Sample ID :Q1711-12Instrumnet Name :P8

Client Sample ID :MW-17B-55-040225Dilution Factor :1

Date & Time Acquired :2025-04-07 13:24:11DataFile Name :028AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.34	0.33	0.31	0.33	4.28	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				106		%
Yttrium	89-2				111		%
Zinc	66-2	2.45	2.50	2.37	2.44	2.58	ppb
Zirconium	90-1	0.01	0.01	0.01	0.01	10.65	ppb
Zirconium	91-1	0.01	0.02	0.02	0.02	6.49	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-13 Instrumnet Name : P8
Client Sample ID : EB01-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:27:23 DataFile Name : 029AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	2.98	2.78	2.80	2.85	3.82	ppb
Antimony	121-1	0.01	0.01	0.01	0.01	6.83	ppb
Arsenic	75-2	0.00	0.00	0.00	0.00		ppb
Barium	135-1	0.08	0.07	0.06	0.07	12.31	ppb
Barium	137-1	0.07	0.05	0.06	0.06	13.75	ppb
Beryllium	9-1	0.00	0.00	0.00	0.00	51.88	ppb
Bismuth	209-1				101		%
Bismuth	209-2				101		%
Bromine	81-1						cps
Cadmium	108-1	0.00	0.02	0.01	0.01	112.18	ppb
Cadmium	106-1	-0.72	-0.94	-0.84	-0.83		ppb
Cadmium	111-1	-0.05	-0.07	-0.07	-0.06		ppb
Calcium	43-1	-3.68	-5.65	-4.32	-4.55		ppb
Calcium	44-1	2.03	1.75	0.95	1.57	35.62	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-1.16	-1.13	-1.15	-1.15		ppb
Cobalt	59-2	-0.01	-0.01	-0.01	-0.01		ppb
Copper	63-2	0.07	0.07	0.10	0.08	18.16	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				102		%
Holmium	165-2				101		%
Indium	115-1				107		%
Indium	115-2				106		%
Iron	54-2	9.86	10.57	11.10	10.51	5.92	ppb
Iron	56-2	11.29	11.60	12.01	11.64	3.12	ppb
Iron	57-2	11.98	11.26	12.31	11.85	4.54	ppb
Krypton	83-1						cps
Lead	206-1	0.09	0.09	0.09	0.09	4.08	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-13 Instrumnet Name : P8
Client Sample ID : EB01-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:27:23 DataFile Name : 029AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.10	0.08	0.09	0.09	6.71	ppb
Lead	208-1	0.09	0.09	0.09	0.09	0.45	ppb
Lithium	6-1				115		%
Magnesium	24-2	3.54	3.63	3.50	3.56	1.78	ppb
Manganese	55-2	1.47	1.46	1.54	1.49	2.92	ppb
Molybdenum	94-1	0.01	0.01	0.01	0.01	24.05	ppb
Molybdenum	95-1	0.00	0.00	0.00	0.00		ppb
Molybdenum	96-1	0.00	0.00	0.00	0.00		ppb
Molybdenum	97-1	0.00	-0.01	-0.01	-0.01		ppb
Molybdenum	98-1	0.00	0.00	0.00	0.00	122.06	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.44	-0.45	-0.44	-0.44		ppb
Phosphorus	31-2	-9.90	-9.72	-7.64	-9.09		ppb
Potassium	39-2	32.62	31.92	36.32	33.62	7.03	ppb
Rhodium	103-1				106		%
Rhodium	103-2				108		%
Scandium	45-1				114		%
Scandium	45-2				116		%
Selenium	82-1	0.18	0.15	0.02	0.11	75.24	ppb
Selenium	77-2	-0.27	-0.49	-0.49	-0.42		ppb
Selenium	78-2	0.58	-0.22	0.60	0.32	145.50	ppb
Silicon	28-1	1.69	1.78	1.81	1.76	3.44	ppb
Silver	107-1	0.00	0.00	0.00	0.00	22.93	ppb
Silver	109-1	0.00	0.00	0.00	0.00	10.62	ppb
Sodium	23-2	99.57	101.34	105.14	102.01	2.79	ppb
Strontium	86-1	0.04	0.05	0.05	0.05	11.14	ppb
Strontium	88-1	0.05	0.05	0.04	0.05	2.18	ppb
Sulfur	34-1	-975.62	-917.63	-907.39	-933.55		ppb
Terbium	159-1				104		%
Terbium	159-2				101		%
Thallium	203-1	0.01	0.01	0.01	0.01	13.30	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	7.24	ppb
Tin	118-1	0.27	0.27	0.26	0.27	1.82	ppb
Titanium	47-1	0.06	0.07	0.05	0.06	17.56	ppb
Uranium	238-1	0.00	0.00	0.00	0.00		ppb

LB Number :LB135332Operator :Jaswal

Lab Sample ID :Q1711-13Instrumnet Name :P8

Client Sample ID :EB01-040225Dilution Factor :1

Date & Time Acquired :2025-04-07 13:27:23DataFile Name :029AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	-0.01	-0.01	-0.01	-0.01		ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				108		%
Yttrium	89-2				111		%
Zinc	66-2	-1.03	-1.05	-1.18	-1.09		ppb
Zirconium	90-1	0.00	0.00	0.00	0.00	18.93	ppb
Zirconium	91-1	0.01	0.00	0.00	0.00	32.90	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-14 Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:30:44 DataFile Name : 030AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1547.76	1508.99	1510.02	1522.26	1.45	ppb
Antimony	121-1	1.72	1.76	1.76	1.75	1.06	ppb
Arsenic	75-2	0.93	0.97	0.91	0.93	3.34	ppb
Barium	135-1	116.84	119.85	119.96	118.88	1.49	ppb
Barium	137-1	124.07	125.11	124.30	124.49	0.44	ppb
Beryllium	9-1	-10.05	-10.16	-10.03	-10.08		ppb
Bismuth	209-1				95		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Cadmium	108-1	0.57	0.62	0.56	0.58	4.76	ppb
Cadmium	106-1	-0.71	-0.61	-0.72	-0.68		ppb
Cadmium	111-1	-0.03	-0.03	-0.03	-0.03		ppb
Calcium	43-1	95352.24	94931.57	93262.99	94515.60	1.17	ppb
Calcium	44-1	93501.19	95223.89	91379.55	93368.21	2.06	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-1.36	-1.36	-1.38	-1.37		ppb
Cobalt	59-2	0.02	0.02	0.02	0.02	13.76	ppb
Copper	63-2	0.11	0.12	0.11	0.11	5.73	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				99		%
Holmium	165-2				101		%
Indium	115-1				102		%
Indium	115-2				104		%
Iron	54-2	36.97	36.09	35.82	36.30	1.66	ppb
Iron	56-2	37.50	36.26	36.46	36.74	1.82	ppb
Iron	57-2	41.87	39.82	39.10	40.26	3.57	ppb
Krypton	83-1						cps
Lead	206-1	0.12	0.11	0.12	0.12	2.95	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-14 Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:30:44 DataFile Name : 030AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.13	0.11	0.12	0.12	5.21	ppb
Lead	208-1	0.12	0.11	0.12	0.12	4.05	ppb
Lithium	6-1				114		%
Magnesium	24-2	405.01	400.24	391.52	398.92	1.71	ppb
Manganese	55-2	9.61	9.32	9.35	9.43	1.72	ppb
Molybdenum	94-1	54.46	53.74	55.29	54.50	1.43	ppb
Molybdenum	95-1	69.14	69.30	71.26	69.90	1.69	ppb
Molybdenum	96-1	68.87	67.04	69.39	68.43	1.81	ppb
Molybdenum	97-1	66.93	66.73	67.22	66.96	0.37	ppb
Molybdenum	98-1	70.71	68.52	71.40	70.21	2.14	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	6.13	5.98	5.98	6.03	1.41	ppb
Phosphorus	31-2	-5.59	-6.89	-1.76	-4.75		ppb
Potassium	39-2	25344.22	25096.21	24712.98	25051.14	1.27	ppb
Rhodium	103-1				100		%
Rhodium	103-2				102		%
Scandium	45-1				113		%
Scandium	45-2				116		%
Selenium	82-1	0.88	0.79	0.89	0.85	6.77	ppb
Selenium	77-2	0.62	-0.05	-0.05	0.17	220.72	ppb
Selenium	78-2	0.58	0.78	1.69	1.02	57.85	ppb
Silicon	28-1	596.56	602.11	594.05	597.57	0.69	ppb
Silver	107-1	0.00	0.00	0.00	0.00	6.15	ppb
Silver	109-1	0.00	0.00	0.00	0.00	30.83	ppb
Sodium	23-2	22564.34	21951.03	21625.71	22047.03	2.16	ppb
Strontium	86-1	534.64	536.81	551.50	540.98	1.70	ppb
Strontium	88-1	548.59	537.70	551.65	545.98	1.34	ppb
Sulfur	34-1	5365.02	5408.50	5357.15	5376.89	0.51	ppb
Terbium	159-1				100		%
Terbium	159-2				101		%
Thallium	203-1	0.03	0.03	0.04	0.03	2.12	ppb
Thallium	205-1	0.03	0.03	0.03	0.03	0.89	ppb
Tin	118-1	0.34	0.36	0.36	0.35	3.04	ppb
Titanium	47-1	0.35	0.35	0.33	0.35	3.43	ppb
Uranium	238-1	0.00	0.00	0.00	0.00	12.81	ppb

LB Number :LB135332Operator :Jaswal

Lab Sample ID :Q1711-14Instrumnet Name :P8

Client Sample ID :MW-18B-56-040225Dilution Factor :1

Date & Time Acquired :2025-04-07 13:30:44DataFile Name :030AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	3.88	3.80	3.83	3.83	1.01	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				106		%
Yttrium	89-2				111		%
Zinc	66-2	-0.14	-0.25	-0.24	-0.21		ppb
Zirconium	90-1	0.01	0.01	0.01	0.01	6.87	ppb
Zirconium	91-1	0.01	0.01	0.01	0.01	18.23	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-14DUP Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225DUP Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:33:59 DataFile Name : 031AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	1522.43	1520.10	1509.79	1517.44	0.44	ppb
Antimony	121-1	1.77	1.76	1.77	1.77	0.35	ppb
Arsenic	75-2	0.78	0.99	0.88	0.88	11.82	ppb
Barium	135-1	121.11	118.44	119.33	119.63	1.13	ppb
Barium	137-1	132.09	128.97	127.81	129.63	1.71	ppb
Beryllium	9-1	-10.06	-9.74	-10.01	-9.94		ppb
Bismuth	209-1				96		%
Bismuth	209-2				99		%
Bromine	81-1						cps
Cadmium	108-1	0.60	0.53	0.60	0.58	7.49	ppb
Cadmium	106-1	-0.54	-0.63	-0.44	-0.53		ppb
Cadmium	111-1	-0.02	-0.02	-0.02	-0.02		ppb
Calcium	43-1	93338.40	92583.87	91892.33	92604.87	0.78	ppb
Calcium	44-1	93574.49	92552.29	90361.27	92162.68	1.78	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-1.37	-1.37	-1.36	-1.37		ppb
Cobalt	59-2	0.02	0.02	0.02	0.02	0.23	ppb
Copper	63-2	0.14	0.14	0.12	0.13	5.84	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				102		%
Holmium	165-2				103		%
Indium	115-1				102		%
Indium	115-2				105		%
Iron	54-2	37.50	36.55	37.09	37.05	1.29	ppb
Iron	56-2	37.49	37.79	36.96	37.41	1.13	ppb
Iron	57-2	40.64	40.14	41.37	40.72	1.52	ppb
Krypton	83-1						cps
Lead	206-1	0.16	0.17	0.17	0.17	0.42	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-14DUP Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225DUP Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:33:59 DataFile Name : 031AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.16	0.17	0.16	0.16	3.52	ppb
Lead	208-1	0.16	0.16	0.16	0.16	1.74	ppb
Lithium	6-1				116		%
Magnesium	24-2	402.84	395.01	398.84	398.90	0.98	ppb
Manganese	55-2	6.69	6.78	6.94	6.80	1.85	ppb
Molybdenum	94-1	54.06	53.51	54.71	54.09	1.10	ppb
Molybdenum	95-1	68.65	67.43	68.70	68.26	1.05	ppb
Molybdenum	96-1	66.99	66.90	70.60	68.17	3.10	ppb
Molybdenum	97-1	65.48	66.35	66.96	66.26	1.13	ppb
Molybdenum	98-1	67.75	69.72	69.15	68.88	1.47	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	6.06	5.94	6.11	6.03	1.46	ppb
Phosphorus	31-2	-4.13	-7.20	-1.43	-4.26		ppb
Potassium	39-2	24758.61	24741.69	24732.27	24744.19	0.05	ppb
Rhodium	103-1				100		%
Rhodium	103-2				104		%
Scandium	45-1				114		%
Scandium	45-2				117		%
Selenium	82-1	0.85	0.85	0.79	0.83	4.31	ppb
Selenium	77-2	-0.28	0.82	-0.49	0.02	3761.72	ppb
Selenium	78-2	0.42	0.43	0.38	0.41	6.27	ppb
Silicon	28-1	591.58	591.26	577.60	586.81	1.36	ppb
Silver	107-1	0.00	0.00	0.00	0.00	51.53	ppb
Silver	109-1	0.00	0.00	0.00	0.00	10.00	ppb
Sodium	23-2	22141.11	22002.24	22040.90	22061.42	0.32	ppb
Strontium	86-1	536.85	543.36	540.71	540.31	0.61	ppb
Strontium	88-1	539.03	537.44	545.21	540.56	0.76	ppb
Sulfur	34-1	5167.74	5227.10	4927.26	5107.37	3.11	ppb
Terbium	159-1				101		%
Terbium	159-2				103		%
Thallium	203-1	0.03	0.04	0.03	0.03	5.83	ppb
Thallium	205-1	0.03	0.03	0.03	0.03	6.52	ppb
Tin	118-1	0.36	0.36	0.37	0.36	2.42	ppb
Titanium	47-1	0.32	0.34	0.34	0.33	3.32	ppb
Uranium	238-1	0.00	0.00	0.00	0.00	38.73	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-14DUP Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225DUP Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:33:59 DataFile Name : 031AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	3.79	3.91	3.81	3.84	1.68	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				107		%
Yttrium	89-2				112		%
Zinc	66-2	-0.63	-0.70	-0.74	-0.69		ppb
Zirconium	90-1	0.01	0.01	0.01	0.01	2.56	ppb
Zirconium	91-1	0.02	0.01	0.01	0.01	30.79	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-14LX5 Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225L Dilution Factor : 5
Date & Time Acquired : 2025-04-07 13:37:11 DataFile Name : 032AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	310.44	311.95	311.21	311.20	0.24	ppb
Antimony	121-1	0.36	0.35	0.35	0.35	1.96	ppb
Arsenic	75-2	0.20	0.23	0.18	0.20	11.90	ppb
Barium	135-1	23.75	24.28	23.69	23.91	1.36	ppb
Barium	137-1	23.84	24.61	24.38	24.27	1.63	ppb
Beryllium	9-1	-2.07	-2.00	-2.04	-2.03		ppb
Bismuth	209-1				97		%
Bismuth	209-2				98		%
Bromine	81-1						cps
Cadmium	108-1	0.11	0.17	0.08	0.12	34.44	ppb
Cadmium	106-1	-0.92	-0.55	-0.92	-0.80		ppb
Cadmium	111-1	-0.07	-0.04	-0.07	-0.06		ppb
Calcium	43-1	18987.81	19485.52	19411.16	19294.83	1.39	ppb
Calcium	44-1	18838.89	18950.84	19117.38	18969.04	0.74	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-1.29	-1.29	-1.29	-1.29		ppb
Cobalt	59-2	-0.01	-0.01	-0.01	-0.01		ppb
Copper	63-2	0.06	0.07	0.07	0.06	10.96	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				100		%
Holmium	165-2				101		%
Indium	115-1				101		%
Indium	115-2				103		%
Iron	54-2	2.07	2.23	1.95	2.08	6.65	ppb
Iron	56-2	2.72	2.89	2.90	2.84	3.60	ppb
Iron	57-2	4.45	4.20	4.20	4.28	3.47	ppb
Krypton	83-1						cps
Lead	206-1	0.03	0.04	0.04	0.04	11.35	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-14LX5 Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225L Dilution Factor : 5
Date & Time Acquired : 2025-04-07 13:37:11 DataFile Name : 032AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.04	0.05	0.04	0.04	7.78	ppb
Lead	208-1	0.04	0.05	0.04	0.04	8.61	ppb
Lithium	6-1				113		%
Magnesium	24-2	80.76	82.04	81.73	81.51	0.82	ppb
Manganese	55-2	2.41	2.41	2.47	2.43	1.51	ppb
Molybdenum	94-1	11.07	11.23	11.00	11.10	1.06	ppb
Molybdenum	95-1	13.14	13.65	13.10	13.30	2.28	ppb
Molybdenum	96-1	12.91	13.06	12.98	12.98	0.58	ppb
Molybdenum	97-1	13.33	13.68	13.43	13.48	1.33	ppb
Molybdenum	98-1	13.10	13.43	13.33	13.29	1.26	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	0.68	0.78	0.70	0.72	7.44	ppb
Phosphorus	31-2	-21.05	-19.72	-11.24	-17.33		ppb
Potassium	39-2	5167.36	5166.68	5158.03	5164.02	0.10	ppb
Rhodium	103-1				100		%
Rhodium	103-2				104		%
Scandium	45-1				110		%
Scandium	45-2				113		%
Selenium	82-1	0.11	0.06	0.12	0.10	33.16	ppb
Selenium	77-2	-0.04	-0.49	-0.49	-0.34		ppb
Selenium	78-2	-0.01	0.29	0.46	0.25	94.78	ppb
Silicon	28-1	119.08	118.62	119.73	119.14	0.47	ppb
Silver	107-1	0.00	0.00	0.00	0.00	7.91	ppb
Silver	109-1	0.00	0.00	0.00	0.00	66.01	ppb
Sodium	23-2	4542.69	4530.73	4439.49	4504.30	1.25	ppb
Strontium	86-1	110.82	110.25	112.82	111.30	1.21	ppb
Strontium	88-1	111.51	111.61	110.36	111.16	0.62	ppb
Sulfur	34-1	1316.81	1407.85	1399.96	1374.87	3.67	ppb
Terbium	159-1				100		%
Terbium	159-2				101		%
Thallium	203-1	0.01	0.01	0.01	0.01	7.21	ppb
Thallium	205-1	0.02	0.02	0.01	0.01	7.90	ppb
Tin	118-1	0.07	0.08	0.07	0.07	7.05	ppb
Titanium	47-1	0.09	0.08	0.08	0.08	6.20	ppb
Uranium	238-1	0.00	0.00	0.00	0.00		ppb

LB Number :LB135332Operator :Jaswal

Lab Sample ID :Q1711-14LX5Instrumnet Name :P8

Client Sample ID :MW-18B-56-040225LDilution Factor :5

Date & Time Acquired :2025-04-07 13:37:11DataFile Name :032AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.81	0.76	0.78	0.78	3.18	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				104		%
Yttrium	89-2				108		%
Zinc	66-2	-1.22	-1.28	-1.23	-1.24		ppb
Zirconium	90-1	0.03	0.03	0.03	0.03	7.78	ppb
Zirconium	91-1	0.03	0.03	0.04	0.03	9.53	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-15 Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225MS Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:40:28 DataFile Name : 033AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	10662.85	10704.37	10818.75	10728.66	0.75	ppb
Antimony	121-1	508.30	514.20	518.80	513.77	1.02	ppb
Arsenic	75-2	0.96	1.05	0.95	0.98	5.59	ppb
Barium	135-1	2353.95	2342.09	2386.75	2360.93	0.98	ppb
Barium	137-1	2355.51	2363.32	2404.28	2374.37	1.10	ppb
Beryllium	9-1	470.18	464.89	470.91	468.66	0.70	ppb
Bismuth	209-1				93		%
Bismuth	209-2				92		%
Bromine	81-1						cps
Cadmium	108-1	473.16	466.27	475.99	471.81	1.06	ppb
Cadmium	106-1	487.74	491.67	495.53	491.65	0.79	ppb
Cadmium	111-1	507.24	500.63	511.83	506.57	1.11	ppb
Calcium	43-1	133980.03	138694.14	138660.50	137111.56	1.98	ppb
Calcium	44-1	133982.68	135523.11	137244.44	135583.41	1.20	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	469.06	468.13	472.38	469.86	0.48	ppb
Cobalt	59-2	473.64	464.79	467.39	468.61	0.97	ppb
Copper	63-2	4242.39	4170.82	4228.49	4213.90	0.90	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				99		%
Holmium	165-2				99		%
Indium	115-1				97		%
Indium	115-2				97		%
Iron	54-2	22649.56	22138.16	22735.56	22507.76	1.43	ppb
Iron	56-2	21761.09	21597.31	21711.77	21690.06	0.39	ppb
Iron	57-2	21506.32	21464.86	21792.46	21587.88	0.83	ppb
Krypton	83-1						cps
Lead	206-1	2345.06	2401.31	2415.69	2387.35	1.56	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-15 Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225MS Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:40:28 DataFile Name : 033AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2392.38	2426.93	2436.80	2418.70	0.96	ppb
Lead	208-1	2374.28	2415.47	2416.11	2401.96	1.00	ppb
Lithium	6-1				116		%
Magnesium	24-2	52704.41	51737.80	52923.09	52455.10	1.20	ppb
Manganese	55-2	4397.67	4305.59	4382.06	4361.77	1.13	ppb
Molybdenum	94-1	2307.63	2319.94	2285.93	2304.50	0.75	ppb
Molybdenum	95-1	1776.63	1763.03	1751.10	1763.58	0.72	ppb
Molybdenum	96-1	1839.52	1823.96	1819.30	1827.59	0.58	ppb
Molybdenum	97-1	1781.21	1767.87	1776.74	1775.27	0.38	ppb
Molybdenum	98-1	1770.89	1778.48	1776.19	1775.19	0.22	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	468.20	470.68	471.91	470.27	0.40	ppb
Phosphorus	31-2	-9.58	-1.52	1.08	-3.34		ppb
Potassium	39-2	45755.77	45114.51	44821.45	45230.58	1.06	ppb
Rhodium	103-1				96		%
Rhodium	103-2				100		%
Scandium	45-1				112		%
Scandium	45-2				121		%
Selenium	82-1	480.23	477.04	480.96	479.41	0.43	ppb
Selenium	77-2	494.59	497.58	485.17	492.45	1.32	ppb
Selenium	78-2	491.35	487.65	499.64	492.88	1.25	ppb
Silicon	28-1	533.02	551.66	555.65	546.78	2.21	ppb
Silver	107-1	80.02	80.00	80.70	80.24	0.49	ppb
Silver	109-1	80.75	78.64	80.65	80.01	1.49	ppb
Sodium	23-2	71808.14	69995.42	72668.53	71490.70	1.91	ppb
Strontium	86-1	1078.57	1090.76	1085.44	1084.92	0.56	ppb
Strontium	88-1	1084.15	1077.57	1082.17	1081.30	0.31	ppb
Sulfur	34-1	4388.30	4588.09	4586.29	4520.90	2.54	ppb
Terbium	159-1				98		%
Terbium	159-2				99		%
Thallium	203-1	449.41	463.75	468.01	460.39	2.12	ppb
Thallium	205-1	445.65	460.11	466.03	457.27	2.29	ppb
Tin	118-1	453.99	457.15	468.79	459.97	1.69	ppb
Titanium	47-1	1.89	1.94	1.97	1.93	2.07	ppb
Uranium	238-1	471.82	477.48	477.52	475.61	0.69	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-15 Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225MS Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:40:28 DataFile Name : 033AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	500.36	503.53	504.65	502.85	0.44	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				104		%
Yttrium	89-2				111		%
Zinc	66-2	4229.78	4206.04	4272.19	4236.00	0.79	ppb
Zirconium	90-1	470.26	469.70	472.46	470.81	0.31	ppb
Zirconium	91-1	462.22	459.49	464.77	462.16	0.57	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-16 Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225MSD Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:43:14 DataFile Name : 034AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	10487.31	10751.03	10722.89	10653.75	1.36	ppb
Antimony	121-1	503.46	525.65	505.14	511.42	2.42	ppb
Arsenic	75-2	0.96	0.98	0.91	0.95	4.10	ppb
Barium	135-1	2343.99	2415.31	2337.42	2365.57	1.83	ppb
Barium	137-1	2361.52	2361.51	2299.02	2340.68	1.54	ppb
Beryllium	9-1	470.52	488.67	476.06	478.42	1.94	ppb
Bismuth	209-1				91		%
Bismuth	209-2				93		%
Bromine	81-1						cps
Cadmium	108-1	474.83	478.02	462.49	471.78	1.74	ppb
Cadmium	106-1	494.46	495.07	488.33	492.62	0.76	ppb
Cadmium	111-1	502.58	507.58	494.75	501.64	1.29	ppb
Calcium	43-1	134895.45	134245.74	136330.52	135157.24	0.79	ppb
Calcium	44-1	132073.57	132894.78	136608.49	133858.94	1.81	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	473.92	476.24	471.40	473.85	0.51	ppb
Cobalt	59-2	468.51	467.39	462.86	466.26	0.64	ppb
Copper	63-2	4261.72	4160.40	4196.38	4206.17	1.22	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				100		%
Holmium	165-2				100		%
Indium	115-1				97		%
Indium	115-2				96		%
Iron	54-2	22803.05	22606.17	22261.32	22556.85	1.22	ppb
Iron	56-2	21566.95	22004.01	21730.60	21767.19	1.01	ppb
Iron	57-2	21571.77	22141.21	21874.16	21862.38	1.30	ppb
Krypton	83-1						cps
Lead	206-1	2397.11	2454.40	2431.51	2427.67	1.19	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-16 Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225MSD Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:43:14 DataFile Name : 034AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2434.35	2502.91	2436.80	2458.02	1.58	ppb
Lead	208-1	2409.88	2470.97	2437.96	2439.60	1.25	ppb
Lithium	6-1				116		%
Magnesium	24-2	52515.38	52739.14	53351.16	52868.56	0.82	ppb
Manganese	55-2	4407.43	4390.03	4351.94	4383.13	0.65	ppb
Molybdenum	94-1	2287.14	2368.47	2337.88	2331.16	1.76	ppb
Molybdenum	95-1	1765.54	1815.33	1809.47	1796.78	1.51	ppb
Molybdenum	96-1	1825.66	1887.19	1878.20	1863.68	1.78	ppb
Molybdenum	97-1	1783.83	1823.65	1825.81	1811.10	1.31	ppb
Molybdenum	98-1	1761.55	1788.54	1829.19	1793.09	1.90	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	469.58	480.81	471.23	473.87	1.28	ppb
Phosphorus	31-2	-6.13	-1.05	-3.31	-3.49		ppb
Potassium	39-2	45900.61	45541.03	45330.39	45590.68	0.63	ppb
Rhodium	103-1				95		%
Rhodium	103-2				100		%
Scandium	45-1				115		%
Scandium	45-2				121		%
Selenium	82-1	484.13	491.53	484.73	486.80	0.84	ppb
Selenium	77-2	506.79	498.93	504.16	503.29	0.79	ppb
Selenium	78-2	501.90	503.73	488.05	497.89	1.72	ppb
Silicon	28-1	548.46	544.39	548.19	547.01	0.42	ppb
Silver	107-1	78.31	80.93	78.20	79.15	1.95	ppb
Silver	109-1	79.91	80.90	77.95	79.59	1.89	ppb
Sodium	23-2	72072.60	74210.05	72534.21	72938.95	1.54	ppb
Strontium	86-1	1078.19	1094.96	1094.03	1089.06	0.87	ppb
Strontium	88-1	1084.97	1107.69	1093.62	1095.43	1.05	ppb
Sulfur	34-1	4126.88	4041.67	4276.79	4148.45	2.87	ppb
Terbium	159-1				99		%
Terbium	159-2				99		%
Thallium	203-1	465.44	479.14	480.50	475.03	1.75	ppb
Thallium	205-1	457.73	472.34	478.08	469.39	2.24	ppb
Tin	118-1	460.46	478.24	452.69	463.80	2.82	ppb
Titanium	47-1	1.97	2.07	1.99	2.01	2.68	ppb
Uranium	238-1	477.92	482.07	478.49	479.49	0.47	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-16 Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225MSD Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:43:14 DataFile Name : 034AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	499.11	504.57	501.37	501.68	0.55	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				104		%
Yttrium	89-2				110		%
Zinc	66-2	4181.48	4235.12	4241.34	4219.31	0.78	ppb
Zirconium	90-1	465.78	482.65	479.82	476.08	1.90	ppb
Zirconium	91-1	460.78	478.07	470.97	469.94	1.85	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCV02 Instrumnet Name : P8
Client Sample ID : CCV02 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:58:04 DataFile Name : 036CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	53314.82	53516.74	49742.30	52191.29	4.07	ppb
Antimony	121-1	522.22	503.01	507.13	510.79	1.98	ppb
Arsenic	75-2	492.44	485.71	458.87	479.00	3.71	ppb
Barium	135-1	2583.13	2476.67	2543.70	2534.50	2.12	ppb
Barium	137-1	2562.85	2465.02	2558.33	2528.73	2.18	ppb
Beryllium	9-1	519.03	502.61	516.28	512.64	1.72	ppb
Bismuth	209-1				80		%
Bismuth	209-2				83		%
Bromine	81-1						cps
Cadmium	108-1	501.60	491.40	493.35	495.45	1.09	ppb
Cadmium	106-1	502.59	487.59	492.81	494.33	1.54	ppb
Cadmium	111-1	510.07	483.42	505.34	499.61	2.85	ppb
Calcium	43-1	264490.75	257744.38	257120.74	259785.29	1.57	ppb
Calcium	44-1	264401.41	261838.40	258506.59	261582.13	1.13	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	506.39	499.61	471.04	492.34	3.81	ppb
Cobalt	59-2	468.23	462.23	443.39	457.95	2.83	ppb
Copper	63-2	4933.09	4768.19	4601.01	4767.43	3.48	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				88		%
Holmium	165-2				94		%
Indium	115-1				84		%
Indium	115-2				89		%
Iron	54-2	124422.59	123280.75	116690.42	121464.59	3.44	ppb
Iron	56-2	122271.04	121958.46	118003.54	120744.35	1.97	ppb
Iron	57-2	120733.74	119941.32	116085.06	118920.04	2.09	ppb
Krypton	83-1						cps
Lead	206-1	2497.31	2477.81	2471.07	2482.06	0.55	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCV02 Instrumnet Name : P8
Client Sample ID : CCV02 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:58:04 DataFile Name : 036CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2461.12	2477.20	2462.79	2467.04	0.36	ppb
Lead	208-1	2488.49	2462.15	2484.71	2478.45	0.57	ppb
Lithium	6-1				99		%
Magnesium	24-2	265361.55	262663.53	250552.42	259525.83	3.04	ppb
Manganese	55-2	4956.06	4935.93	4711.44	4867.81	2.79	ppb
Molybdenum	94-1	4952.60	4834.06	4957.89	4914.85	1.42	ppb
Molybdenum	95-1	4897.27	4826.26	4982.81	4902.11	1.60	ppb
Molybdenum	96-1	4907.81	4945.03	4971.65	4941.50	0.65	ppb
Molybdenum	97-1	4972.14	4975.61	4971.04	4972.93	0.05	ppb
Molybdenum	98-1	4881.47	4832.18	4965.05	4892.90	1.37	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	468.20	455.56	454.06	459.27	1.69	ppb
Phosphorus	31-2	10872.01	10778.14	10176.29	10608.81	3.56	ppb
Potassium	39-2	132179.19	129763.85	123187.29	128376.78	3.63	ppb
Rhodium	103-1				82		%
Rhodium	103-2				87		%
Scandium	45-1				99		%
Scandium	45-2				112		%
Selenium	82-1	471.29	467.80	475.22	471.44	0.79	ppb
Selenium	77-2	491.80	494.55	464.20	483.52	3.47	ppb
Selenium	78-2	501.91	495.54	458.72	485.39	4.80	ppb
Silicon	28-1	563.10	554.68	544.07	553.95	1.72	ppb
Silver	107-1	498.58	481.98	494.94	491.83	1.77	ppb
Silver	109-1	505.86	491.02	496.74	497.87	1.50	ppb
Sodium	23-2	276907.57	270674.66	260636.75	269406.33	3.05	ppb
Strontium	86-1	498.58	502.59	507.15	502.78	0.85	ppb
Strontium	88-1	502.50	506.24	511.28	506.68	0.87	ppb
Sulfur	34-1	11499.39	11182.02	10913.40	11198.27	2.62	ppb
Terbium	159-1				89		%
Terbium	159-2				93		%
Thallium	203-1	498.78	504.76	490.00	497.85	1.49	ppb
Thallium	205-1	501.59	503.97	498.72	501.43	0.52	ppb
Tin	118-1	519.68	505.42	502.07	509.06	1.84	ppb
Titanium	47-1	5028.39	5010.81	4941.05	4993.42	0.93	ppb
Uranium	238-1	506.50	505.59	506.41	506.17	0.10	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCV02 Instrumnet Name : P8
Client Sample ID : CCV02 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:58:04 DataFile Name : 036CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	516.84	511.52	480.43	502.93	3.91	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				94		%
Yttrium	89-2				104		%
Zinc	66-2	4892.56	4696.31	4630.74	4739.87	2.87	ppb
Zirconium	90-1	499.46	489.40	498.41	495.76	1.12	ppb
Zirconium	91-1	499.72	486.13	505.98	497.28	2.04	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCB02 Instrumnet Name : P8
Client Sample ID : CCB02 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 14:05:27 DataFile Name : 037CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.10	0.59	0.60	0.43	66.62	ppb
Antimony	121-1	0.03	0.03	0.02	0.03	13.14	ppb
Arsenic	75-2	0.01	0.00	0.01	0.01	86.25	ppb
Barium	135-1	0.03	0.04	0.02	0.03	28.45	ppb
Barium	137-1	0.02	0.02	0.02	0.02	7.74	ppb
Beryllium	9-1	0.02	0.03	0.03	0.03	8.78	ppb
Bismuth	209-1				97		%
Bismuth	209-2				96		%
Bromine	81-1						cps
Cadmium	108-1	0.01	0.02	0.01	0.01	39.82	ppb
Cadmium	106-1	-0.80	-0.84	-0.88	-0.84		ppb
Cadmium	111-1	-0.05	-0.06	-0.06	-0.06		ppb
Calcium	43-1	-9.56	-6.70	-7.52	-7.93		ppb
Calcium	44-1	-2.99	-2.44	-3.55	-3.00		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.31	-0.33	-0.23	-0.29		ppb
Cobalt	59-2	0.00	-0.01	0.00	0.00		ppb
Copper	63-2	0.06	0.06	0.06	0.06	7.40	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				97		%
Holmium	165-2				97		%
Indium	115-1				100		%
Indium	115-2				102		%
Iron	54-2	-1.10	-0.89	-0.82	-0.93		ppb
Iron	56-2	-0.67	-0.81	-0.90	-0.80		ppb
Iron	57-2	-1.32	0.11	-0.91	-0.71		ppb
Krypton	83-1						cps
Lead	206-1	0.09	0.09	0.09	0.09	3.35	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCB02 Instrumnet Name : P8
Client Sample ID : CCB02 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 14:05:27 DataFile Name : 037CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.09	0.09	0.09	0.09	2.51	ppb
Lead	208-1	0.09	0.09	0.09	0.09	3.40	ppb
Lithium	6-1				110		%
Magnesium	24-2	1.76	1.84	2.14	1.91	10.56	ppb
Manganese	55-2	-0.02	0.01	-0.01	-0.01		ppb
Molybdenum	94-1	0.08	0.07	0.08	0.08	4.85	ppb
Molybdenum	95-1	0.06	0.05	0.06	0.06	7.21	ppb
Molybdenum	96-1	0.07	0.05	0.06	0.06	12.93	ppb
Molybdenum	97-1	0.06	0.05	0.05	0.05	12.21	ppb
Molybdenum	98-1	0.06	0.06	0.06	0.06	5.52	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.23	-0.20	-0.24	-0.23		ppb
Phosphorus	31-2	-22.46	-20.60	-17.42	-20.16		ppb
Potassium	39-2	29.37	30.77	30.56	30.23	2.51	ppb
Rhodium	103-1				100		%
Rhodium	103-2				103		%
Scandium	45-1				108		%
Scandium	45-2				109		%
Selenium	82-1	0.14	0.01	-0.04	0.04	261.73	ppb
Selenium	77-2	-0.26	-0.49	-0.49	-0.41		ppb
Selenium	78-2	0.69	0.84	0.22	0.58	55.04	ppb
Silicon	28-1	0.08	0.15	0.04	0.09	63.34	ppb
Silver	107-1	0.01	0.01	0.01	0.01	5.21	ppb
Silver	109-1	0.01	0.01	0.01	0.01	14.50	ppb
Sodium	23-2	38.94	37.45	38.71	38.37	2.10	ppb
Strontium	86-1	0.01	0.00	0.00	0.00	106.37	ppb
Strontium	88-1	0.01	0.00	0.01	0.01	14.46	ppb
Sulfur	34-1	-372.21	-245.55	-272.59	-296.78		ppb
Terbium	159-1				98		%
Terbium	159-2				97		%
Thallium	203-1	0.03	0.03	0.03	0.03	7.00	ppb
Thallium	205-1	0.03	0.03	0.03	0.03	6.12	ppb
Tin	118-1	-0.04	-0.05	-0.05	-0.05		ppb
Titanium	47-1	0.53	0.06	0.07	0.22	122.33	ppb
Uranium	238-1	0.00	0.00	0.00	0.00	10.07	ppb

LB Number :LB135332Operator :Jaswal

Lab Sample ID :CCB02Instrumnet Name :P8

Client Sample ID :CCB02Dilution Factor :1

Date & Time Acquired :2025-04-07 14:05:27DataFile Name :037CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	0.01	0.00	0.00	87.61	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				102		%
Yttrium	89-2				106		%
Zinc	66-2	-0.95	-0.96	-0.99	-0.97		ppb
Zirconium	90-1	0.01	0.01	0.01	0.01	3.70	ppb
Zirconium	91-1	0.01	0.01	0.01	0.01	31.42	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-14A Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225A Dilution Factor : 1
Date & Time Acquired : 2025-04-07 14:08:49 DataFile Name : 038AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	10801.09	10781.05	10610.71	10730.95	0.97	ppb
Antimony	121-1	506.27	510.97	509.96	509.07	0.49	ppb
Arsenic	75-2	0.96	1.10	0.97	1.01	7.41	ppb
Barium	135-1	2297.08	2344.88	2358.61	2333.53	1.38	ppb
Barium	137-1	2339.33	2307.13	2337.86	2328.11	0.78	ppb
Beryllium	9-1	467.95	475.42	481.27	474.88	1.41	ppb
Bismuth	209-1				89		%
Bismuth	209-2				89		%
Bromine	81-1						cps
Cadmium	108-1	459.89	456.99	458.87	458.58	0.32	ppb
Cadmium	106-1	483.25	484.54	493.54	487.11	1.15	ppb
Cadmium	111-1	491.82	498.94	491.06	493.94	0.88	ppb
Calcium	43-1	132186.85	133839.22	136212.82	134079.63	1.51	ppb
Calcium	44-1	131071.79	131616.33	135774.56	132820.89	1.94	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	478.09	472.85	476.04	475.66	0.56	ppb
Cobalt	59-2	467.97	467.09	466.04	467.03	0.21	ppb
Copper	63-2	4233.57	4148.25	4218.26	4200.03	1.08	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				95		%
Holmium	165-2				96		%
Indium	115-1				92		%
Indium	115-2				93		%
Iron	54-2	22520.07	22149.81	22547.77	22405.88	0.99	ppb
Iron	56-2	21880.17	21788.23	21808.98	21825.79	0.22	ppb
Iron	57-2	21965.58	21441.82	21429.27	21612.22	1.42	ppb
Krypton	83-1						cps
Lead	206-1	2362.34	2343.42	2365.22	2356.99	0.50	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-14A Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225A Dilution Factor : 1
Date & Time Acquired : 2025-04-07 14:08:49 DataFile Name : 038AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2388.92	2379.24	2400.96	2389.70	0.46	ppb
Lead	208-1	2370.85	2371.09	2391.73	2377.89	0.50	ppb
Lithium	6-1				110		%
Magnesium	24-2	51882.53	51927.08	52254.77	52021.46	0.39	ppb
Manganese	55-2	4406.34	4358.39	4371.22	4378.65	0.57	ppb
Molybdenum	94-1	2292.22	2258.77	2288.16	2279.72	0.80	ppb
Molybdenum	95-1	1750.09	1726.56	1767.59	1748.08	1.18	ppb
Molybdenum	96-1	1792.78	1796.99	1814.04	1801.27	0.62	ppb
Molybdenum	97-1	1747.42	1750.93	1780.62	1759.66	1.04	ppb
Molybdenum	98-1	1730.00	1741.64	1776.66	1749.43	1.39	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	480.08	472.47	471.62	474.72	0.98	ppb
Phosphorus	31-2	-6.56	-8.41	-2.42	-5.80		ppb
Potassium	39-2	45522.68	45164.05	46346.72	45677.82	1.33	ppb
Rhodium	103-1				93		%
Rhodium	103-2				94		%
Scandium	45-1				110		%
Scandium	45-2				117		%
Selenium	82-1	473.01	473.22	478.05	474.76	0.60	ppb
Selenium	77-2	494.62	502.51	501.94	499.69	0.88	ppb
Selenium	78-2	501.92	505.38	503.75	503.68	0.34	ppb
Silicon	28-1	538.89	561.01	558.29	552.73	2.18	ppb
Silver	107-1	77.71	79.30	81.16	79.39	2.18	ppb
Silver	109-1	78.11	79.69	78.24	78.68	1.11	ppb
Sodium	23-2	71994.72	72132.98	71763.50	71963.73	0.26	ppb
Strontium	86-1	1061.94	1076.07	1080.76	1072.93	0.91	ppb
Strontium	88-1	1074.15	1087.79	1092.69	1084.88	0.89	ppb
Sulfur	34-1	4217.17	4229.52	4331.38	4259.35	1.47	ppb
Terbium	159-1				95		%
Terbium	159-2				96		%
Thallium	203-1	450.29	456.11	458.93	455.11	0.97	ppb
Thallium	205-1	443.10	454.76	459.07	452.31	1.83	ppb
Tin	118-1	452.26	458.49	454.12	454.96	0.70	ppb
Titanium	47-1	1.86	1.97	1.99	1.94	3.46	ppb
Uranium	238-1	461.82	465.59	478.82	468.74	1.91	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-14A Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225A Dilution Factor : 1
Date & Time Acquired : 2025-04-07 14:08:49 DataFile Name : 038AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	503.12	500.11	511.74	504.99	1.20	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				102		%
Yttrium	89-2				106		%
Zinc	66-2	4219.90	4231.39	4259.94	4237.08	0.49	ppb
Zirconium	90-1	466.46	465.41	475.12	469.00	1.14	ppb
Zirconium	91-1	465.82	461.58	461.97	463.12	0.51	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1731-05 Instrumnet Name : P8
Client Sample ID : EB01-040325 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 14:11:39 DataFile Name : 039AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	3.07	2.51	3.00	2.86	10.69	ppb
Antimony	121-1	0.03	0.02	0.02	0.03	11.36	ppb
Arsenic	75-2	-0.01	-0.01	0.01	0.00		ppb
Barium	135-1	0.13	0.11	0.10	0.11	14.08	ppb
Barium	137-1	0.11	0.10	0.10	0.11	5.01	ppb
Beryllium	9-1	0.05	0.04	0.04	0.05	5.60	ppb
Bismuth	209-1				96		%
Bismuth	209-2				98		%
Bromine	81-1						cps
Cadmium	108-1	0.02	0.03	0.03	0.03	16.31	ppb
Cadmium	106-1	-0.69	-0.84	-0.92	-0.82		ppb
Cadmium	111-1	-0.03	-0.05	-0.06	-0.04		ppb
Calcium	43-1	-6.32	-6.85	-7.41	-6.86		ppb
Calcium	44-1	-1.43	-1.44	-1.25	-1.37		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-1.36	-1.37	-1.36	-1.36		ppb
Cobalt	59-2	-0.01	-0.01	-0.01	-0.01		ppb
Copper	63-2	0.12	0.09	0.12	0.11	12.07	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				98		%
Holmium	165-2				98		%
Indium	115-1				102		%
Indium	115-2				102		%
Iron	54-2	-4.30	-4.66	-3.96	-4.31		ppb
Iron	56-2	-3.53	-3.47	-3.43	-3.47		ppb
Iron	57-2	-3.00	-3.31	-3.26	-3.19		ppb
Krypton	83-1						cps
Lead	206-1	0.27	0.23	0.21	0.23	11.70	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1731-05 Instrumnet Name : P8
Client Sample ID : EB01-040325 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 14:11:39 DataFile Name : 039AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.26	0.23	0.21	0.23	11.13	ppb
Lead	208-1	0.26	0.22	0.21	0.23	12.37	ppb
Lithium	6-1				113		%
Magnesium	24-2	2.98	2.77	2.44	2.73	9.83	ppb
Manganese	55-2	0.64	0.65	0.68	0.66	3.57	ppb
Molybdenum	94-1	0.16	0.15	0.13	0.14	11.12	ppb
Molybdenum	95-1	0.06	0.04	0.03	0.05	33.77	ppb
Molybdenum	96-1	0.08	0.06	0.05	0.06	24.38	ppb
Molybdenum	97-1	0.06	0.05	0.03	0.05	25.30	ppb
Molybdenum	98-1	0.06	0.05	0.04	0.05	27.08	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.61	-0.65	-0.63	-0.63		ppb
Phosphorus	31-2	-16.55	-6.35	-17.44	-13.44		ppb
Potassium	39-2	38.16	37.73	38.07	37.99	0.60	ppb
Rhodium	103-1				101		%
Rhodium	103-2				103		%
Scandium	45-1				109		%
Scandium	45-2				113		%
Selenium	82-1	0.09	0.05	0.05	0.06	34.81	ppb
Selenium	77-2	-0.49	-0.26	-0.49	-0.41		ppb
Selenium	78-2	0.01	0.08	0.70	0.26	145.96	ppb
Silicon	28-1	1.59	1.74	1.73	1.69	5.01	ppb
Silver	107-1	0.02	0.02	0.02	0.02	18.24	ppb
Silver	109-1	0.02	0.02	0.01	0.02	22.79	ppb
Sodium	23-2	64.00	62.02	62.22	62.75	1.74	ppb
Strontium	86-1	0.08	0.06	0.05	0.06	26.72	ppb
Strontium	88-1	0.06	0.06	0.06	0.06	4.21	ppb
Sulfur	34-1	-343.28	-187.57	-169.61	-233.48		ppb
Terbium	159-1				98		%
Terbium	159-2				99		%
Thallium	203-1	0.13	0.10	0.08	0.10	22.75	ppb
Thallium	205-1	0.12	0.09	0.08	0.10	20.83	ppb
Tin	118-1	0.20	0.20	0.22	0.21	5.46	ppb
Titanium	47-1	0.07	0.06	0.06	0.06	7.92	ppb
Uranium	238-1	0.01	0.01	0.00	0.01	35.14	ppb

LB Number :LB135332Operator :Jaswal

Lab Sample ID :Q1731-05Instrumnet Name :P8

Client Sample ID :EB01-040325Dilution Factor :1

Date & Time Acquired :2025-04-07 14:11:39DataFile Name :039AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	0.01	0.00	0.00	154.49	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				104		%
Yttrium	89-2				107		%
Zinc	66-2	-1.26	-1.19	-1.33	-1.26		ppb
Zirconium	90-1	0.05	0.05	0.04	0.04	11.58	ppb
Zirconium	91-1	0.06	0.05	0.04	0.05	11.11	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1731-06 Instrumnet Name : P8
Client Sample ID : EB01-040325 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 14:14:59 DataFile Name : 040AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	2.85	2.28	2.46	2.53	11.37	ppb
Antimony	121-1	0.02	0.02	0.02	0.02	7.01	ppb
Arsenic	75-2	0.00	0.00	0.00	0.00	70.26	ppb
Barium	135-1	0.06	0.06	0.07	0.06	2.58	ppb
Barium	137-1	0.06	0.05	0.04	0.05	17.21	ppb
Beryllium	9-1	0.02	0.02	0.02	0.02	5.43	ppb
Bismuth	209-1				98		%
Bismuth	209-2				97		%
Bromine	81-1						cps
Cadmium	108-1	0.02	0.01	0.00	0.01	83.05	ppb
Cadmium	106-1	-0.89	-1.02	-0.66	-0.85		ppb
Cadmium	111-1	-0.06	-0.07	-0.04	-0.06		ppb
Calcium	43-1	-7.77	-6.70	-5.94	-6.80		ppb
Calcium	44-1	-0.44	4.07	1.09	1.57	145.91	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-1.42	-1.40	-1.41	-1.41		ppb
Cobalt	59-2	-0.01	-0.01	-0.02	-0.01		ppb
Copper	63-2	0.08	0.08	0.08	0.08	2.80	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				98		%
Holmium	165-2				97		%
Indium	115-1				101		%
Indium	115-2				102		%
Iron	54-2	-6.41	-6.30	-5.86	-6.19		ppb
Iron	56-2	-4.97	-4.95	-5.04	-4.98		ppb
Iron	57-2	-4.68	-5.19	-4.69	-4.85		ppb
Krypton	83-1						cps
Lead	206-1	0.11	0.10	0.10	0.10	4.53	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1731-06 Instrumnet Name : P8
Client Sample ID : EB01-040325 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 14:14:59 DataFile Name : 040AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.11	0.10	0.11	0.10	5.49	ppb
Lead	208-1	0.10	0.10	0.10	0.10	1.72	ppb
Lithium	6-1				112		%
Magnesium	24-2	6.18	6.20	6.07	6.15	1.18	ppb
Manganese	55-2	2.93	3.03	2.85	2.94	3.01	ppb
Molybdenum	94-1	0.03	0.03	0.03	0.03	3.53	ppb
Molybdenum	95-1	-0.01	-0.01	-0.01	-0.01		ppb
Molybdenum	96-1	0.00	0.00	0.00	0.00		ppb
Molybdenum	97-1	-0.01	-0.01	-0.01	-0.01		ppb
Molybdenum	98-1	0.00	-0.01	0.00	0.00		ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.61	-0.60	-0.61	-0.61		ppb
Phosphorus	31-2	-13.89	-20.00	-12.61	-15.50		ppb
Potassium	39-2	35.61	34.73	33.55	34.63	2.98	ppb
Rhodium	103-1				101		%
Rhodium	103-2				103		%
Scandium	45-1				109		%
Scandium	45-2				110		%
Selenium	82-1	0.26	-0.09	0.06	0.08	222.47	ppb
Selenium	77-2	-0.49	-0.49	-0.26	-0.41		ppb
Selenium	78-2	0.23	0.15	0.49	0.29	61.58	ppb
Silicon	28-1	1.38	1.50	1.68	1.52	9.77	ppb
Silver	107-1	0.01	0.01	0.01	0.01	12.69	ppb
Silver	109-1	0.01	0.00	0.01	0.01	11.28	ppb
Sodium	23-2	77.58	76.53	74.75	76.29	1.88	ppb
Strontium	86-1	0.07	0.05	0.06	0.06	9.60	ppb
Strontium	88-1	0.06	0.06	0.07	0.06	3.73	ppb
Sulfur	34-1	-292.48	-215.36	-79.98	-195.94		ppb
Terbium	159-1				97		%
Terbium	159-2				99		%
Thallium	203-1	0.04	0.03	0.04	0.04	12.12	ppb
Thallium	205-1	0.04	0.03	0.03	0.03	9.45	ppb
Tin	118-1	0.38	0.35	0.38	0.37	4.34	ppb
Titanium	47-1	0.05	0.07	0.06	0.06	14.65	ppb
Uranium	238-1	0.00	0.00	0.00	0.00	104.33	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1731-06 Instrumnet Name : P8
Client Sample ID : EB01-040325 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 14:14:59 DataFile Name : 040AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	-0.01	0.00	0.00		ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				102		%
Yttrium	89-2				106		%
Zinc	66-2	-1.15	-1.12	-1.08	-1.12		ppb
Zirconium	90-1	0.01	0.01	0.01	0.01	8.75	ppb
Zirconium	91-1	0.01	0.02	0.02	0.01	10.68	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-01DLX10 Instrumnet Name : P8
Client Sample ID : 32725DL Dilution Factor : 10
Date & Time Acquired : 2025-04-07 14:18:21 DataFile Name : 041AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	12.62	13.28	12.09	12.66	4.72	ppb
Antimony	121-1	0.18	0.18	0.19	0.19	1.49	ppb
Arsenic	75-2	41.13	42.51	43.09	42.25	2.39	ppb
Barium	135-1	1.11	1.13	1.15	1.13	1.55	ppb
Barium	137-1	1.12	1.14	1.13	1.13	0.98	ppb
Beryllium	9-1	-0.13	-0.14	-0.13	-0.13		ppb
Bismuth	209-1				117		%
Bismuth	209-2				118		%
Bromine	81-1						cps
Cadmium	108-1	0.83	0.45	0.25	0.51	57.95	ppb
Cadmium	106-1	1.37	0.53	0.21	0.70	85.00	ppb
Cadmium	111-1	0.08	0.03	0.02	0.04	71.39	ppb
Calcium	43-1	4138.85	4061.08	4087.28	4095.74	0.97	ppb
Calcium	44-1	4738.40	4724.05	4710.39	4724.28	0.30	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-1.01	-1.03	-1.03	-1.02		ppb
Cobalt	59-2	0.42	0.39	0.37	0.40	5.76	ppb
Copper	63-2	0.65	0.64	0.59	0.63	5.41	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				116		%
Holmium	165-2				119		%
Indium	115-1				121		%
Indium	115-2				122		%
Iron	54-2	20736.00	20450.34	19144.38	20110.24	4.22	ppb
Iron	56-2	20521.90	20337.07	19108.38	19989.12	3.84	ppb
Iron	57-2	20375.60	20260.59	19154.27	19930.15	3.38	ppb
Krypton	83-1						cps
Lead	206-1	0.21	0.22	0.22	0.22	3.50	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-01DLX10 Instrumnet Name : P8
Client Sample ID : 32725DL Dilution Factor : 10
Date & Time Acquired : 2025-04-07 14:18:21 DataFile Name : 041AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.22	0.22	0.22	0.22	0.65	ppb
Lead	208-1	0.21	0.22	0.21	0.21	0.37	ppb
Lithium	6-1				139		%
Magnesium	24-2	840.98	841.15	794.16	825.43	3.28	ppb
Manganese	55-2	671.43	672.15	638.89	660.82	2.87	ppb
Molybdenum	94-1	11.80	6.30	4.31	7.47	51.95	ppb
Molybdenum	95-1	0.24	0.22	0.23	0.23	3.55	ppb
Molybdenum	96-1	1.51	0.92	0.75	1.06	37.77	ppb
Molybdenum	97-1	0.22	0.22	0.21	0.22	2.27	ppb
Molybdenum	98-1	0.22	0.22	0.22	0.22	0.71	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.33	-0.32	-0.33	-0.33		ppb
Phosphorus	31-2	18.50	18.90	16.80	18.07	6.17	ppb
Potassium	39-2	4736.78	4714.24	4568.70	4673.24	1.95	ppb
Rhodium	103-1				122		%
Rhodium	103-2				126		%
Scandium	45-1				136		%
Scandium	45-2				136		%
Selenium	82-1	29.12	32.48	32.14	31.25	5.92	ppb
Selenium	77-2	31.21	30.30	28.96	30.16	3.75	ppb
Selenium	78-2	29.71	30.25	32.04	30.67	3.98	ppb
Silicon	28-1	180.91	181.14	184.18	182.07	1.00	ppb
Silver	107-1	0.01	0.01	0.01	0.01	27.53	ppb
Silver	109-1	0.01	0.01	0.01	0.01	11.60	ppb
Sodium	23-2	7677.83	7669.54	7158.26	7501.87	3.97	ppb
Strontium	86-1	8.34	8.34	8.40	8.36	0.40	ppb
Strontium	88-1	8.21	8.40	8.34	8.32	1.18	ppb
Sulfur	34-1	462.65	194.68	177.53	278.28	57.46	ppb
Terbium	159-1				117		%
Terbium	159-2				117		%
Thallium	203-1	0.14	0.11	0.10	0.12	15.92	ppb
Thallium	205-1	0.13	0.12	0.10	0.12	14.35	ppb
Tin	118-1	0.10	0.12	0.13	0.12	10.76	ppb
Titanium	47-1	0.32	0.34	0.31	0.32	5.20	ppb
Uranium	238-1	0.00	0.00	0.00	0.00	2.48	ppb

LB Number :LB135332Operator :Jaswal

Lab Sample ID :Q1700-01DLX10Instrumnet Name :P8

Client Sample ID :32725DLDilution Factor :10

Date & Time Acquired :2025-04-07 14:18:21DataFile Name :041AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.05	0.04	0.04	0.04	5.31	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				124		%
Yttrium	89-2				130		%
Zinc	66-2	16.13	15.67	15.06	15.62	3.42	ppb
Zirconium	90-1	6.42	3.29	2.26	3.99	54.35	ppb
Zirconium	91-1	6.30	3.24	2.23	3.92	53.91	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-02DLX10 Instrumnet Name : P8
Client Sample ID : 32525DL Dilution Factor : 10
Date & Time Acquired : 2025-04-07 14:21:35 DataFile Name : 042AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	49.03	49.20	49.48	49.24	0.46	ppb
Antimony	121-1	0.19	0.18	0.18	0.18	1.74	ppb
Arsenic	75-2	67.50	68.13	68.45	68.02	0.71	ppb
Barium	135-1	1.94	1.94	1.92	1.94	0.53	ppb
Barium	137-1	1.92	1.90	1.94	1.92	1.11	ppb
Beryllium	9-1	-0.09	-0.09	-0.08	-0.09		ppb
Bismuth	209-1				126		%
Bismuth	209-2				128		%
Bromine	81-1						cps
Cadmium	108-1	0.09	0.12	0.12	0.11	15.03	ppb
Cadmium	106-1	0.05	0.03	0.02	0.03	43.65	ppb
Cadmium	111-1	0.01	0.00	0.01	0.01	51.46	ppb
Calcium	43-1	2070.53	2112.18	2121.38	2101.36	1.29	ppb
Calcium	44-1	2940.34	2870.45	2886.47	2899.09	1.26	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.74	-0.75	-0.78	-0.76		ppb
Cobalt	59-2	0.09	0.09	0.08	0.09	7.35	ppb
Copper	63-2	0.84	0.85	0.83	0.84	1.33	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				128		%
Holmium	165-2				131		%
Indium	115-1				133		%
Indium	115-2				146		%
Iron	54-2	23184.13	22893.35	23192.73	23090.07	0.74	ppb
Iron	56-2	22939.05	22668.88	22712.97	22773.63	0.64	ppb
Iron	57-2	22825.45	22822.32	22643.48	22763.75	0.46	ppb
Krypton	83-1						cps
Lead	206-1	0.51	0.52	0.52	0.52	1.02	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-02DLX10 Instrumnet Name : P8
Client Sample ID : 32525DL Dilution Factor : 10
Date & Time Acquired : 2025-04-07 14:21:35 DataFile Name : 042AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.51	0.51	0.51	0.51	0.47	ppb
Lead	208-1	0.51	0.52	0.51	0.51	0.81	ppb
Lithium	6-1				151		%
Magnesium	24-2	687.71	680.46	690.02	686.07	0.73	ppb
Manganese	55-2	768.90	773.41	763.61	768.64	0.64	ppb
Molybdenum	94-1	1.65	1.39	1.31	1.45	12.07	ppb
Molybdenum	95-1	0.19	0.19	0.20	0.19	3.72	ppb
Molybdenum	96-1	0.44	0.41	0.41	0.42	3.48	ppb
Molybdenum	97-1	0.19	0.18	0.20	0.19	4.19	ppb
Molybdenum	98-1	0.19	0.19	0.20	0.19	1.17	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.42	-0.40	-0.44	-0.42		ppb
Phosphorus	31-2	13.44	8.76	10.97	11.06	21.14	ppb
Potassium	39-2	305.81	303.27	304.44	304.51	0.42	ppb
Rhodium	103-1				136		%
Rhodium	103-2				141		%
Scandium	45-1				152		%
Scandium	45-2				153		%
Selenium	82-1	31.02	32.07	33.19	32.10	3.38	ppb
Selenium	77-2	33.60	36.16	27.02	32.26	14.62	ppb
Selenium	78-2	30.77	29.66	29.51	29.98	2.30	ppb
Silicon	28-1	228.00	237.96	240.01	235.32	2.73	ppb
Silver	107-1	0.01	0.00	0.01	0.01	11.83	ppb
Silver	109-1	0.00	0.00	0.00	0.00	14.61	ppb
Sodium	23-2	4199.49	4146.87	4173.54	4173.30	0.63	ppb
Strontium	86-1	5.31	5.24	5.44	5.33	1.87	ppb
Strontium	88-1	5.38	5.29	5.40	5.36	1.11	ppb
Sulfur	34-1	-333.96	-309.59	-294.77	-312.78		ppb
Terbium	159-1				129		%
Terbium	159-2				129		%
Thallium	203-1	0.08	0.07	0.06	0.07	11.96	ppb
Thallium	205-1	0.08	0.07	0.07	0.07	10.18	ppb
Tin	118-1	0.17	0.16	0.19	0.17	7.41	ppb
Titanium	47-1	1.29	0.90	0.85	1.01	23.82	ppb
Uranium	238-1	0.01	0.00	0.00	0.01	8.85	ppb

LB Number :LB135332Operator :Jaswal

Lab Sample ID :Q1700-02DLX10Instrumnet Name :P8

Client Sample ID :32525DLDilution Factor :10

Date & Time Acquired :2025-04-07 14:21:35DataFile Name :042AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.09	0.08	0.08	0.08	5.72	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				138		%
Yttrium	89-2				145		%
Zinc	66-2	4.26	4.06	4.17	4.16	2.47	ppb
Zirconium	90-1	0.81	0.68	0.63	0.71	12.49	ppb
Zirconium	91-1	0.81	0.69	0.65	0.72	11.59	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-01DL2X25 Instrumnet Name : P8
Client Sample ID : 32725DL2 Dilution Factor : 25
Date & Time Acquired : 2025-04-07 14:33:21 DataFile Name : 043AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	4.34	3.59	3.44	3.79	12.75	ppb
Antimony	121-1	0.06	0.06	0.06	0.06	1.86	ppb
Arsenic	75-2	5.33	5.43	5.79	5.52	4.36	ppb
Barium	135-1	0.34	0.34	0.33	0.34	1.58	ppb
Barium	137-1	0.35	0.33	0.36	0.35	3.40	ppb
Beryllium	9-1	-0.04	-0.04	-0.04	-0.04		ppb
Bismuth	209-1				109		%
Bismuth	209-2				112		%
Bromine	81-1						cps
Cadmium	108-1	0.06	0.02	0.08	0.05	53.56	ppb
Cadmium	106-1	-0.08	-0.43	-0.18	-0.23		ppb
Cadmium	111-1	-0.01	-0.03	-0.02	-0.02		ppb
Calcium	43-1	1276.16	1299.22	1316.04	1297.14	1.54	ppb
Calcium	44-1	1583.94	1606.47	1589.30	1593.24	0.74	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.20	-0.24	-0.23	-0.22		ppb
Cobalt	59-2	0.13	0.13	0.13	0.13	3.63	ppb
Copper	63-2	0.11	0.10	0.08	0.10	13.99	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				110		%
Holmium	165-2				113		%
Indium	115-1				113		%
Indium	115-2				116		%
Iron	54-2	7129.36	6976.40	6966.65	7024.13	1.30	ppb
Iron	56-2	6908.64	6861.17	6799.01	6856.28	0.80	ppb
Iron	57-2	7016.78	6897.71	6880.50	6931.66	1.07	ppb
Krypton	83-1						cps
Lead	206-1	0.05	0.05	0.05	0.05	8.07	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-01DL2X25 Instrumnet Name : P8
Client Sample ID : 32725DL2 Dilution Factor : 25
Date & Time Acquired : 2025-04-07 14:33:21 DataFile Name : 043AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.05	0.06	0.06	0.05	13.37	ppb
Lead	208-1	0.05	0.05	0.05	0.05	3.40	ppb
Lithium	6-1				130		%
Magnesium	24-2	298.12	292.68	290.26	293.69	1.37	ppb
Manganese	55-2	221.21	221.71	216.01	219.64	1.44	ppb
Molybdenum	94-1	0.73	0.63	0.58	0.65	11.61	ppb
Molybdenum	95-1	0.08	0.09	0.09	0.09	5.37	ppb
Molybdenum	96-1	0.18	0.17	0.16	0.17	3.47	ppb
Molybdenum	97-1	0.08	0.07	0.08	0.08	4.75	ppb
Molybdenum	98-1	0.09	0.07	0.09	0.08	8.05	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.18	-0.18	-0.17	-0.17		ppb
Phosphorus	31-2	-6.28	-11.29	-11.13	-9.57		ppb
Potassium	39-2	1686.76	1674.73	1670.54	1677.34	0.50	ppb
Rhodium	103-1				115		%
Rhodium	103-2				121		%
Scandium	45-1				126		%
Scandium	45-2				131		%
Selenium	82-1	5.36	6.20	6.71	6.09	11.17	ppb
Selenium	77-2	6.88	7.43	4.41	6.24	25.76	ppb
Selenium	78-2	7.57	7.24	7.51	7.44	2.40	ppb
Silicon	28-1	71.28	73.35	76.06	73.57	3.26	ppb
Silver	107-1	0.00	0.00	0.00	0.00	23.42	ppb
Silver	109-1	0.00	0.00	0.00	0.00	9.03	ppb
Sodium	23-2	2809.79	2816.84	2761.03	2795.88	1.09	ppb
Strontium	86-1	2.80	2.78	2.80	2.79	0.55	ppb
Strontium	88-1	2.82	2.77	2.83	2.80	1.21	ppb
Sulfur	34-1	276.76	292.82	362.80	310.79	14.72	ppb
Terbium	159-1				110		%
Terbium	159-2				112		%
Thallium	203-1	0.02	0.02	0.02	0.02	6.84	ppb
Thallium	205-1	0.02	0.02	0.02	0.02	10.74	ppb
Tin	118-1	0.00	-0.01	-0.01	-0.01		ppb
Titanium	47-1	0.10	0.10	0.10	0.10	2.83	ppb
Uranium	238-1	0.00	0.00	0.00	0.00		ppb

LB Number :LB135332Operator :Jaswal

Lab Sample ID :Q1700-01DL2X25Instrumnet Name :P8

Client Sample ID :32725DL2Dilution Factor :25

Date & Time Acquired :2025-04-07 14:33:21DataFile Name :043AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.02	0.02	0.01	0.02	8.89	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				118		%
Yttrium	89-2				124		%
Zinc	66-2	3.92	3.84	3.73	3.83	2.52	ppb
Zirconium	90-1	0.37	0.31	0.28	0.32	14.09	ppb
Zirconium	91-1	0.35	0.31	0.30	0.32	8.30	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-02DL2X25 Instrumnet Name : P8
Client Sample ID : 32525DL2 Dilution Factor : 25
Date & Time Acquired : 2025-04-07 14:36:37 DataFile Name : 044AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	18.24	18.64	17.56	18.15	3.03	ppb
Antimony	121-1	0.06	0.07	0.07	0.06	5.16	ppb
Arsenic	75-2	8.97	9.34	9.41	9.24	2.58	ppb
Barium	135-1	0.65	0.67	0.65	0.66	2.25	ppb
Barium	137-1	0.67	0.68	0.68	0.67	1.35	ppb
Beryllium	9-1	-0.03	-0.03	-0.03	-0.03		ppb
Bismuth	209-1				114		%
Bismuth	209-2				117		%
Bromine	81-1						cps
Cadmium	108-1	0.06	0.04	0.03	0.05	32.07	ppb
Cadmium	106-1	-0.30	0.06	-0.23	-0.15		ppb
Cadmium	111-1	-0.02	0.01	-0.02	-0.01		ppb
Calcium	43-1	771.46	774.08	773.17	772.90	0.17	ppb
Calcium	44-1	1149.34	1174.95	1127.38	1150.56	2.07	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.11	-0.09	-0.13	-0.11		ppb
Cobalt	59-2	0.03	0.02	0.02	0.02	7.23	ppb
Copper	63-2	0.10	0.11	0.11	0.11	6.82	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				114		%
Holmium	165-2				117		%
Indium	115-1				119		%
Indium	115-2				121		%
Iron	54-2	7868.87	7898.45	7767.92	7845.08	0.87	ppb
Iron	56-2	7791.91	7676.63	7720.58	7729.71	0.75	ppb
Iron	57-2	7984.67	7757.39	7900.43	7880.83	1.46	ppb
Krypton	83-1						cps
Lead	206-1	0.16	0.17	0.18	0.17	3.50	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-02DL2X25 Instrumnet Name : P8
Client Sample ID : 32525DL2 Dilution Factor : 25
Date & Time Acquired : 2025-04-07 14:36:37 DataFile Name : 044AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.16	0.17	0.18	0.17	4.30	ppb
Lead	208-1	0.16	0.16	0.17	0.17	4.32	ppb
Lithium	6-1				137		%
Magnesium	24-2	253.45	253.54	251.07	252.69	0.55	ppb
Manganese	55-2	261.76	255.17	260.14	259.02	1.33	ppb
Molybdenum	94-1	0.38	0.40	0.40	0.39	3.86	ppb
Molybdenum	95-1	0.07	0.08	0.07	0.07	7.40	ppb
Molybdenum	96-1	0.14	0.13	0.13	0.13	3.23	ppb
Molybdenum	97-1	0.07	0.07	0.07	0.07	0.07	ppb
Molybdenum	98-1	0.08	0.07	0.07	0.08	2.31	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.19	-0.18	-0.21	-0.19		ppb
Phosphorus	31-2	-13.77	-13.47	-12.98	-13.41		ppb
Potassium	39-2	122.87	120.99	122.02	121.96	0.77	ppb
Rhodium	103-1				121		%
Rhodium	103-2				127		%
Scandium	45-1				135		%
Scandium	45-2				137		%
Selenium	82-1	8.86	10.02	10.76	9.88	9.69	ppb
Selenium	77-2	11.91	9.55	10.03	10.50	11.84	ppb
Selenium	78-2	10.36	11.81	9.86	10.68	9.52	ppb
Silicon	28-1	96.63	101.19	100.37	99.40	2.45	ppb
Silver	107-1	0.00	0.00	0.00	0.00	21.96	ppb
Silver	109-1	0.00	0.00	0.00	0.00	8.64	ppb
Sodium	23-2	1659.12	1658.57	1646.85	1654.85	0.42	ppb
Strontium	86-1	1.96	2.00	1.93	1.96	1.93	ppb
Strontium	88-1	1.97	1.96	1.99	1.97	0.55	ppb
Sulfur	34-1	46.68	-63.61	-76.99	-31.31		ppb
Terbium	159-1				115		%
Terbium	159-2				115		%
Thallium	203-1	0.02	0.02	0.02	0.02	7.03	ppb
Thallium	205-1	0.02	0.02	0.02	0.02	4.42	ppb
Tin	118-1	0.02	0.02	0.01	0.02	14.45	ppb
Titanium	47-1	0.27	0.28	0.27	0.27	1.54	ppb
Uranium	238-1	0.00	0.00	0.00	0.00		ppb

LB Number :LB135332Operator :Jaswal

Lab Sample ID :Q1700-02DL2X25Instrumnet Name :P8

Client Sample ID :32525DL2Dilution Factor :25

Date & Time Acquired :2025-04-07 14:36:37DataFile Name :044AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.03	0.05	0.04	0.04	15.48	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				123		%
Yttrium	89-2				131		%
Zinc	66-2	-0.24	-0.24	-0.21	-0.23		ppb
Zirconium	90-1	0.18	0.18	0.18	0.18	1.08	ppb
Zirconium	91-1	0.17	0.19	0.19	0.18	3.76	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-01DL3X50 Instrumnet Name : P8
Client Sample ID : 32725DL Dilution Factor : 50
Date & Time Acquired : 2025-04-07 14:39:54 DataFile Name : 045AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	3.17	3.29	2.91	3.12	6.23	ppb
Antimony	121-1	0.04	0.03	0.03	0.03	5.86	ppb
Arsenic	75-2	1.99	2.08	2.19	2.09	4.65	ppb
Barium	135-1	0.18	0.19	0.19	0.19	4.85	ppb
Barium	137-1	0.18	0.18	0.19	0.18	3.01	ppb
Beryllium	9-1	-0.02	-0.02	-0.02	-0.02		ppb
Bismuth	209-1				102		%
Bismuth	209-2				104		%
Bromine	81-1						cps
Cadmium	108-1	0.02	0.00	0.02	0.01	90.65	ppb
Cadmium	106-1	-0.52	-0.66	-0.67	-0.62		ppb
Cadmium	111-1	-0.04	-0.05	-0.05	-0.05		ppb
Calcium	43-1	643.00	644.52	658.80	648.77	1.34	ppb
Calcium	44-1	803.61	805.48	845.07	818.05	2.86	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.24	-0.26	-0.27	-0.26		ppb
Cobalt	59-2	0.08	0.07	0.07	0.07	6.79	ppb
Copper	63-2	0.05	0.05	0.04	0.05	15.44	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				104		%
Holmium	165-2				105		%
Indium	115-1				107		%
Indium	115-2				109		%
Iron	54-2	4103.76	4082.83	3945.29	4043.96	2.13	ppb
Iron	56-2	3970.34	3954.20	3807.80	3910.78	2.29	ppb
Iron	57-2	3695.65	3685.14	3627.99	3669.59	0.99	ppb
Krypton	83-1						cps
Lead	206-1	0.03	0.02	0.03	0.03	14.35	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-01DL3X50 Instrumnet Name : P8
Client Sample ID : 32725DL Dilution Factor : 50
Date & Time Acquired : 2025-04-07 14:39:54 DataFile Name : 045AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.02	0.03	0.03	0.03	9.17	ppb
Lead	208-1	0.03	0.03	0.03	0.03	5.47	ppb
Lithium	6-1				124		%
Magnesium	24-2	160.14	160.54	157.05	159.25	1.20	ppb
Manganese	55-2	122.87	123.45	119.97	122.10	1.53	ppb
Molybdenum	94-1	0.23	0.22	0.22	0.22	1.51	ppb
Molybdenum	95-1	0.04	0.04	0.04	0.04	0.57	ppb
Molybdenum	96-1	0.08	0.08	0.08	0.08	1.40	ppb
Molybdenum	97-1	0.04	0.04	0.04	0.04	2.62	ppb
Molybdenum	98-1	0.04	0.04	0.04	0.04	3.30	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.22	-0.19	-0.18	-0.20		ppb
Phosphorus	31-2	-10.76	-14.62	-17.17	-14.18		ppb
Potassium	39-2	914.29	936.73	907.63	919.55	1.66	ppb
Rhodium	103-1				109		%
Rhodium	103-2				112		%
Scandium	45-1				121		%
Scandium	45-2				121		%
Selenium	82-1	2.43	2.82	2.88	2.71	8.96	ppb
Selenium	77-2	2.00	2.05	2.06	2.04	1.57	ppb
Selenium	78-2	2.24	3.05	3.26	2.85	18.92	ppb
Silicon	28-1	39.38	40.36	41.81	40.52	3.01	ppb
Silver	107-1	0.00	0.00	0.00	0.00	55.16	ppb
Silver	109-1	0.00	0.00	0.00	0.00	114.40	ppb
Sodium	23-2	1573.39	1561.10	1505.56	1546.68	2.34	ppb
Strontium	86-1	1.53	1.51	1.49	1.51	1.26	ppb
Strontium	88-1	1.52	1.51	1.50	1.51	0.75	ppb
Sulfur	34-1	-8.77	54.66	242.49	96.12	135.93	ppb
Terbium	159-1				104		%
Terbium	159-2				104		%
Thallium	203-1	0.01	0.01	0.01	0.01	13.05	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	5.95	ppb
Tin	118-1	-0.03	-0.04	-0.04	-0.04		ppb
Titanium	47-1	0.05	0.06	0.05	0.05	13.30	ppb
Uranium	238-1	0.00	0.00	0.00	0.00		ppb

LB Number :

LB135332

Operator :

Jaswal

Lab Sample ID :

Q1700-01DL3X50

Instrumnet Name :

P8

Client Sample ID :

32725DL

Dilution Factor :

50

Date & Time Acquired :

2025-04-07 14:39:54

DataFile Name :

045AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.01	0.01	0.01	0.01	22.27	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				111		%
Yttrium	89-2				117		%
Zinc	66-2	1.69	2.01	1.77	1.82	9.15	ppb
Zirconium	90-1	0.10	0.10	0.10	0.10	1.83	ppb
Zirconium	91-1	0.10	0.10	0.10	0.10	3.08	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-02DL3X50 Instrumnet Name : P8
Client Sample ID : 32525DL Dilution Factor : 50
Date & Time Acquired : 2025-04-07 14:43:27 DataFile Name : 046AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	9.82	8.99	9.77	9.53	4.89	ppb
Antimony	121-1	0.03	0.03	0.03	0.03	5.35	ppb
Arsenic	75-2	2.19	2.19	2.27	2.22	2.03	ppb
Barium	135-1	0.37	0.34	0.35	0.35	3.88	ppb
Barium	137-1	0.34	0.33	0.34	0.34	1.71	ppb
Beryllium	9-1	-0.01	-0.01	-0.01	-0.01		ppb
Bismuth	209-1				104		%
Bismuth	209-2				108		%
Bromine	81-1						cps
Cadmium	108-1	0.01	0.03	0.00	0.01	88.89	ppb
Cadmium	106-1	-0.88	-0.70	-0.95	-0.84		ppb
Cadmium	111-1	-0.07	-0.05	-0.07	-0.06		ppb
Calcium	43-1	383.59	387.45	399.92	390.32	2.19	ppb
Calcium	44-1	591.61	579.61	605.02	592.08	2.15	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.15	-0.21	-0.25	-0.20		ppb
Cobalt	59-2	0.01	0.01	0.01	0.01	25.24	ppb
Copper	63-2	0.06	0.06	0.06	0.06	6.79	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				105		%
Holmium	165-2				109		%
Indium	115-1				110		%
Indium	115-2				113		%
Iron	54-2	3963.29	3814.36	3895.17	3890.94	1.92	ppb
Iron	56-2	3882.19	3700.45	3782.11	3788.25	2.40	ppb
Iron	57-2	3616.80	3581.57	3562.44	3586.94	0.77	ppb
Krypton	83-1						cps
Lead	206-1	0.09	0.09	0.08	0.09	2.75	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-02DL3X50 Instrumnet Name : P8
Client Sample ID : 32525DL Dilution Factor : 50
Date & Time Acquired : 2025-04-07 14:43:27 DataFile Name : 046AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.10	0.10	0.09	0.09	8.76	ppb
Lead	208-1	0.09	0.09	0.08	0.09	4.46	ppb
Lithium	6-1				124		%
Magnesium	24-2	127.77	127.19	126.81	127.26	0.38	ppb
Manganese	55-2	122.42	118.90	119.17	120.16	1.63	ppb
Molybdenum	94-1	0.17	0.20	0.20	0.19	8.93	ppb
Molybdenum	95-1	0.03	0.03	0.04	0.04	14.86	ppb
Molybdenum	96-1	0.06	0.07	0.06	0.07	7.95	ppb
Molybdenum	97-1	0.03	0.03	0.03	0.03	7.80	ppb
Molybdenum	98-1	0.04	0.04	0.03	0.04	5.46	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.16	-0.18	-0.21	-0.18		ppb
Phosphorus	31-2	-20.16	-17.88	-18.29	-18.77		ppb
Potassium	39-2	69.90	70.45	68.77	69.71	1.23	ppb
Rhodium	103-1				111		%
Rhodium	103-2				115		%
Scandium	45-1				123		%
Scandium	45-2				126		%
Selenium	82-1	2.45	3.12	3.23	2.93	14.29	ppb
Selenium	77-2	3.59	2.97	1.32	2.63	44.79	ppb
Selenium	78-2	3.10	3.82	2.86	3.26	15.36	ppb
Silicon	28-1	48.31	49.18	51.09	49.52	2.87	ppb
Silver	107-1	0.00	0.00	0.00	0.00	16.37	ppb
Silver	109-1	0.00	0.00	0.00	0.00	181.13	ppb
Sodium	23-2	851.40	861.99	848.70	854.03	0.82	ppb
Strontium	86-1	0.96	0.96	1.00	0.97	1.89	ppb
Strontium	88-1	0.98	1.00	0.99	0.99	0.61	ppb
Sulfur	34-1	-128.82	-130.53	-245.00	-168.12		ppb
Terbium	159-1				106		%
Terbium	159-2				109		%
Thallium	203-1	0.01	0.01	0.01	0.01	7.73	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	10.09	ppb
Tin	118-1	-0.02	-0.02	-0.01	-0.02		ppb
Titanium	47-1	0.12	0.14	0.13	0.13	8.24	ppb
Uranium	238-1	0.00	0.00	0.00	0.00		ppb

LB Number :LB135332Operator :Jaswal

Lab Sample ID :Q1700-02DL3X50Instrumnet Name :P8

Client Sample ID :32525DLDilution Factor :50

Date & Time Acquired :2025-04-07 14:43:27DataFile Name :046AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.01	0.02	0.01	0.01	23.58	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				114		%
Yttrium	89-2				121		%
Zinc	66-2	-0.77	-0.64	-0.60	-0.67		ppb
Zirconium	90-1	0.08	0.09	0.09	0.08	2.87	ppb
Zirconium	91-1	0.08	0.08	0.09	0.08	5.81	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-02DL4X100 Instrumnet Name : P8
Client Sample ID : 32525DL Dilution Factor : 100
Date & Time Acquired : 2025-04-07 14:52:05 DataFile Name : 048AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	5.81	5.06	4.91	5.26	9.19	ppb
Antimony	121-1	0.02	0.02	0.02	0.02	10.57	ppb
Arsenic	75-2	0.69	0.60	0.66	0.65	6.51	ppb
Barium	135-1	0.17	0.18	0.18	0.17	3.70	ppb
Barium	137-1	0.18	0.19	0.17	0.18	6.63	ppb
Beryllium	9-1	-0.01	-0.01	0.00	0.00		ppb
Bismuth	209-1				105		%
Bismuth	209-2				108		%
Bromine	81-1						cps
Cadmium	108-1	0.05	0.00	0.00	0.02	175.87	ppb
Cadmium	106-1	-0.64	-0.51	-0.61	-0.58		ppb
Cadmium	111-1	-0.05	-0.04	-0.05	-0.05		ppb
Calcium	43-1	186.36	185.95	189.83	187.38	1.14	ppb
Calcium	44-1	254.92	259.86	258.05	257.61	0.97	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.31	-0.26	-0.28	-0.28		ppb
Cobalt	59-2	0.00	0.00	0.00	0.00		ppb
Copper	63-2	0.03	0.04	0.02	0.03	36.19	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				106		%
Holmium	165-2				109		%
Indium	115-1				109		%
Indium	115-2				113		%
Iron	54-2	1851.40	1864.13	1802.54	1839.35	1.77	ppb
Iron	56-2	1886.29	1936.80	1871.34	1898.14	1.81	ppb
Iron	57-2	1783.22	1824.94	1770.74	1792.97	1.58	ppb
Krypton	83-1						cps
Lead	206-1	0.06	0.05	0.05	0.06	6.79	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-02DL4X100 Instrumnet Name : P8
Client Sample ID : 32525DL Dilution Factor : 100
Date & Time Acquired : 2025-04-07 14:52:05 DataFile Name : 048AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.05	0.04	0.05	0.05	9.99	ppb
Lead	208-1	0.05	0.05	0.05	0.05	6.69	ppb
Lithium	6-1				124		%
Magnesium	24-2	62.58	65.09	63.56	63.74	1.98	ppb
Manganese	55-2	59.89	60.39	58.60	59.62	1.54	ppb
Molybdenum	94-1	0.19	0.19	0.19	0.19	1.98	ppb
Molybdenum	95-1	0.01	0.01	0.02	0.01	25.30	ppb
Molybdenum	96-1	0.04	0.04	0.04	0.04	6.41	ppb
Molybdenum	97-1	0.01	0.02	0.02	0.01	23.68	ppb
Molybdenum	98-1	0.02	0.02	0.02	0.02	7.65	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.18	-0.18	-0.18	-0.18		ppb
Phosphorus	31-2	-23.57	-20.02	-17.14	-20.24		ppb
Potassium	39-2	40.90	43.83	40.61	41.78	4.26	ppb
Rhodium	103-1				111		%
Rhodium	103-2				115		%
Scandium	45-1				122		%
Scandium	45-2				125		%
Selenium	82-1	1.22	1.51	1.60	1.44	13.54	ppb
Selenium	77-2	1.95	0.32	0.31	0.86	109.69	ppb
Selenium	78-2	1.57	1.62	2.75	1.98	33.74	ppb
Silicon	28-1	23.63	24.95	25.02	24.53	3.21	ppb
Silver	107-1	0.00	0.00	0.00	0.00	81.12	ppb
Silver	109-1	0.00	0.00	0.00	0.00	189.36	ppb
Sodium	23-2	409.08	413.59	409.62	410.76	0.60	ppb
Strontium	86-1	0.49	0.48	0.49	0.49	1.15	ppb
Strontium	88-1	0.50	0.49	0.51	0.50	1.38	ppb
Sulfur	34-1	-128.28	174.33	-6.13	13.31	1144.07	ppb
Terbium	159-1				105		%
Terbium	159-2				108		%
Thallium	203-1	0.01	0.00	0.01	0.01	20.25	ppb
Thallium	205-1	0.01	0.01	0.01	0.01	7.06	ppb
Tin	118-1	-0.03	-0.04	-0.04	-0.04		ppb
Titanium	47-1	0.09	0.07	0.07	0.07	13.65	ppb
Uranium	238-1	0.00	0.00	0.00	0.00		ppb

LB Number :LB135332Operator :Jaswal

Lab Sample ID :Q1700-02DL4X100Instrumnet Name :P8

Client Sample ID :32525DLDilution Factor :100

Date & Time Acquired :2025-04-07 14:52:05DataFile Name :048AREF.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.01	0.00	0.01	0.01	46.11	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				112		%
Yttrium	89-2				122		%
Zinc	66-2	-0.95	-0.89	-0.81	-0.88		ppb
Zirconium	90-1	0.09	0.10	0.09	0.09	3.30	ppb
Zirconium	91-1	0.10	0.10	0.09	0.10	4.12	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCV03 Instrumnet Name : P8
Client Sample ID : CCV03 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 15:00:29 DataFile Name : 050CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	54086.32	53041.24	53177.76	53435.11	1.06	ppb
Antimony	121-1	498.29	503.39	494.54	498.74	0.89	ppb
Arsenic	75-2	471.99	483.26	471.29	475.51	1.41	ppb
Barium	135-1	2486.83	2464.12	2502.67	2484.54	0.78	ppb
Barium	137-1	2512.86	2486.28	2441.31	2480.15	1.46	ppb
Beryllium	9-1	492.44	494.13	510.07	498.88	1.95	ppb
Bismuth	209-1				83		%
Bismuth	209-2				84		%
Bromine	81-1						cps
Cadmium	108-1	486.28	482.09	468.60	478.99	1.93	ppb
Cadmium	106-1	477.36	480.46	471.85	476.56	0.92	ppb
Cadmium	111-1	497.74	490.79	489.37	492.63	0.91	ppb
Calcium	43-1	250045.78	255215.06	255300.42	253520.42	1.19	ppb
Calcium	44-1	249023.76	256230.56	251442.45	252232.25	1.45	ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	511.18	509.71	509.07	509.98	0.21	ppb
Cobalt	59-2	484.04	485.33	475.62	481.67	1.09	ppb
Copper	63-2	5156.34	5241.85	5210.96	5203.05	0.83	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				93		%
Holmium	165-2				95		%
Indium	115-1				86		%
Indium	115-2				87		%
Iron	54-2	125299.08	126902.68	125114.22	125771.99	0.78	ppb
Iron	56-2	123857.97	124217.14	124963.93	124346.35	0.45	ppb
Iron	57-2	125075.60	124926.73	123943.15	124648.49	0.49	ppb
Krypton	83-1						cps
Lead	206-1	2463.72	2469.71	2428.30	2453.91	0.91	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCV03 Instrumnet Name : P8
Client Sample ID : CCV03 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 15:00:29 DataFile Name : 050CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	2470.23	2468.70	2429.18	2456.03	0.95	ppb
Lead	208-1	2454.22	2468.74	2447.61	2456.86	0.44	ppb
Lithium	6-1				104		%
Magnesium	24-2	268617.99	267460.71	266717.59	267598.76	0.36	ppb
Manganese	55-2	5022.85	5074.60	5036.46	5044.64	0.53	ppb
Molybdenum	94-1	4819.95	4867.31	4928.59	4871.95	1.12	ppb
Molybdenum	95-1	4801.51	4798.22	4895.23	4831.65	1.14	ppb
Molybdenum	96-1	4777.86	4854.91	4896.90	4843.22	1.25	ppb
Molybdenum	97-1	4821.47	4888.74	4890.47	4866.90	0.81	ppb
Molybdenum	98-1	4863.67	4771.84	4858.37	4831.29	1.07	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	478.51	479.00	474.98	477.49	0.46	ppb
Phosphorus	31-2	10549.50	10598.28	10457.72	10535.17	0.68	ppb
Potassium	39-2	129638.18	128105.78	129063.19	128935.71	0.60	ppb
Rhodium	103-1				84		%
Rhodium	103-2				89		%
Scandium	45-1				102		%
Scandium	45-2				108		%
Selenium	82-1	465.67	463.09	476.73	468.50	1.55	ppb
Selenium	77-2	481.47	488.74	481.26	483.82	0.88	ppb
Selenium	78-2	482.88	486.96	476.58	482.14	1.08	ppb
Silicon	28-1	548.36	541.04	539.90	543.10	0.84	ppb
Silver	107-1	479.16	483.08	477.97	480.07	0.56	ppb
Silver	109-1	488.19	489.44	482.23	486.62	0.79	ppb
Sodium	23-2	275881.40	271252.46	270087.30	272407.05	1.13	ppb
Strontium	86-1	494.87	499.13	496.66	496.89	0.43	ppb
Strontium	88-1	486.91	496.86	506.72	496.83	1.99	ppb
Sulfur	34-1	10693.66	10449.26	10549.87	10564.26	1.16	ppb
Terbium	159-1				93		%
Terbium	159-2				95		%
Thallium	203-1	497.19	497.56	495.37	496.71	0.24	ppb
Thallium	205-1	492.14	497.63	491.50	493.76	0.68	ppb
Tin	118-1	503.16	508.24	494.90	502.10	1.34	ppb
Titanium	47-1	4963.29	4979.19	4967.56	4970.01	0.17	ppb
Uranium	238-1	503.85	498.65	504.49	502.33	0.64	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCV03 Instrumnet Name : P8
Client Sample ID : CCV03 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 15:00:29 DataFile Name : 050CCV.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	520.29	524.10	521.09	521.83	0.39	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				96		%
Yttrium	89-2				103		%
Zinc	66-2	5054.36	5153.74	5060.89	5089.66	1.09	ppb
Zirconium	90-1	489.69	489.05	498.83	492.53	1.11	ppb
Zirconium	91-1	482.95	479.23	499.73	487.30	2.24	ppb

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCB03 Instrumnet Name : P8
Client Sample ID : CCB03 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 15:13:18 DataFile Name : 051CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Aluminium	27-2	0.46	0.21	0.23	0.30	46.31	ppb
Antimony	121-1	0.02	0.02	0.02	0.02	13.10	ppb
Arsenic	75-2	0.01	0.00	0.00	0.00	72.63	ppb
Barium	135-1	0.03	0.03	0.02	0.03	15.74	ppb
Barium	137-1	0.02	0.03	0.02	0.02	9.14	ppb
Beryllium	9-1	0.02	0.02	0.02	0.02	5.41	ppb
Bismuth	209-1				102		%
Bismuth	209-2				104		%
Bromine	81-1						cps
Cadmium	108-1	0.00	0.00	-0.01	0.00		ppb
Cadmium	106-1	-1.24	-1.09	-0.92	-1.08		ppb
Cadmium	111-1	-0.09	-0.08	-0.06	-0.08		ppb
Calcium	43-1	-10.41	-10.17	-10.89	-10.49		ppb
Calcium	44-1	-4.36	-4.81	-4.74	-4.64		ppb
Carbon	12-1						cps
Carbon	12-2						cps
Chlorine	35-1						cps
Chlorine	35-2						cps
Chromium	52-2	-0.29	-0.29	-0.28	-0.29		ppb
Cobalt	59-2	0.00	0.00	-0.01	0.00		ppb
Copper	63-2	0.05	0.06	0.05	0.05	15.53	ppb
Dysprosium	156-1						cps
Dysprosium	156-2						cps
Erbium	164-1						cps
Erbium	164-2						cps
Gadolinium	160-1						cps
Gadolinium	160-2						cps
Holmium	165-1				101		%
Holmium	165-2				103		%
Indium	115-1				107		%
Indium	115-2				107		%
Iron	54-2	-1.35	-1.06	-1.18	-1.20		ppb
Iron	56-2	-0.93	-0.82	-0.97	-0.90		ppb
Iron	57-2	-1.36	-1.27	-0.59	-1.07		ppb
Krypton	83-1						cps
Lead	206-1	0.05	0.05	0.06	0.06	2.45	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCB03 Instrumnet Name : P8
Client Sample ID : CCB03 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 15:13:18 DataFile Name : 051CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Lead	207-1	0.06	0.06	0.05	0.06	16.47	ppb
Lead	208-1	0.06	0.06	0.05	0.06	3.21	ppb
Lithium	6-1				120		%
Magnesium	24-2	1.61	1.74	1.96	1.77	10.09	ppb
Manganese	55-2	-0.04	0.01	0.01	-0.01		ppb
Molybdenum	94-1	0.07	0.06	0.07	0.07	4.68	ppb
Molybdenum	95-1	0.05	0.04	0.05	0.05	11.57	ppb
Molybdenum	96-1	0.06	0.05	0.05	0.06	8.03	ppb
Molybdenum	97-1	0.05	0.04	0.04	0.05	13.57	ppb
Molybdenum	98-1	0.05	0.06	0.05	0.05	6.29	ppb
Neodymium	150-1						cps
Neodymium	150-2						cps
Nickel	60-2	-0.23	-0.24	-0.24	-0.23		ppb
Phosphorus	31-2	-20.06	-25.76	-25.04	-23.62		ppb
Potassium	39-2	24.68	23.53	24.18	24.13	2.38	ppb
Rhodium	103-1				106		%
Rhodium	103-2				109		%
Scandium	45-1				116		%
Scandium	45-2				116		%
Selenium	82-1	0.22	0.05	0.30	0.19	65.31	ppb
Selenium	77-2	-0.28	-0.28	-0.49	-0.35		ppb
Selenium	78-2	-0.10	0.23	0.25	0.13	152.48	ppb
Silicon	28-1	0.17	0.09	0.15	0.13	32.12	ppb
Silver	107-1	0.01	0.01	0.01	0.01	15.23	ppb
Silver	109-1	0.01	0.01	0.01	0.01	8.65	ppb
Sodium	23-2	33.61	33.80	33.93	33.78	0.48	ppb
Strontium	86-1	0.00	0.00	0.00	0.00	144.58	ppb
Strontium	88-1	0.00	0.00	0.00	0.00	10.27	ppb
Sulfur	34-1	-445.28	-418.75	-396.09	-420.04		ppb
Terbium	159-1				104		%
Terbium	159-2				103		%
Thallium	203-1	0.02	0.01	0.02	0.01	5.72	ppb
Thallium	205-1	0.01	0.01	0.02	0.01	6.50	ppb
Tin	118-1	-0.05	-0.05	-0.04	-0.05		ppb
Titanium	47-1	0.06	0.07	0.05	0.06	15.97	ppb
Uranium	238-1	0.00	0.00	0.00	0.00	7.13	ppb

LB Number :LB135332Operator :Jaswal

Lab Sample ID :CCB03Instrumnet Name :P8

Client Sample ID :CCB03Dilution Factor :1

Date & Time Acquired :2025-04-07 15:13:18DataFile Name :051CCBE.d

Parameter	Mass	ConRep1	ConRep2	ConRep3	Avg. Conc.	ConcRSD	Units
Vanadium	51-2	0.00	0.00	0.00	0.00	64.28	ppb
Ytterbium	172-1						cps
Ytterbium	172-2						cps
Ytterbium	176-1						cps
Ytterbium	176-2						cps
Yttrium	89-1				109		%
Yttrium	89-2				113		%
Zinc	66-2	-0.96	-0.92	-0.93	-0.93		ppb
Zirconium	90-1	0.01	0.01	0.01	0.01	13.19	ppb
Zirconium	91-1	0.01	0.01	0.01	0.01	17.32	ppb

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S0 Instrumnet Name : P8
Client Sample ID : S0 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:29:45 DataFile Name : 004CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	403	320	363	362	11.51	cps
Antimony	121-1	110	63	123	99	31.86	cps
Arsenic	75-2	13	10	13	12	15.73	cps
Barium	135-1	190	163	137	163	16.33	cps
Barium	137-1	373	340	410	374	9.35	cps
Beryllium	9-1	68	72	85	75	11.63	cps
Bismuth	209-1	6677436	6163412	6251148	6363999	4.32	cps
Bismuth	209-2	3052880	3058202	3051500	3054194	0.12	cps
Bromine	81-1	31238	30553	29434	30409	2.99	cps
Cadmium	108-1	7	23	37	22	67.63	cps
Cadmium	106-1	7992	7492	7172	7552	5.48	cps
Cadmium	111-1	5610	5248	5048	5302	5.37	cps
Calcium	43-1	4781	4768	4554	4701	2.71	cps
Calcium	44-1	92418	90287	87255	89987	2.88	cps
Carbon	12-1	4214130	4105932	3934045	4084702	3.46	cps
Carbon	12-2	30278	30171	30037	30162	0.40	cps
Chlorine	35-1	198808	194497	193846	195717	1.38	cps
Chlorine	35-2	1147	1040	940	1042	9.92	cps
Chromium	52-2	14985	14501	14491	14659	1.93	cps
Cobalt	59-2	400	363	383	382	4.80	cps
Copper	63-2	3280	3010	3107	3133	4.37	cps
Dysprosium	156-1	30	17	17	21	36.45	cps
Dysprosium	156-2	3	3	0	2	86.60	cps
Erbium	164-1	67	83	67	72	13.32	cps
Erbium	164-2	37	30	47	38	22.21	cps
Gadolinium	160-1	143	100	157	133	22.22	cps
Gadolinium	160-2	47	37	40	41	12.39	cps
Holmium	165-1	11160280	10691706	10617562	10823183	2.72	cps
Holmium	165-2	4374058	4407215	4401526	4394266	0.40	cps
Indium	115-1	9943714	9506754	9443012	9631160	2.83	cps
Indium	115-2	1172546	1170765	1164993	1169435	0.34	cps
Iron	54-2	3914	3924	4114	3984	2.83	cps
Iron	56-2	59704	60836	59286	59942	1.34	cps
Iron	57-2	1453	1450	1507	1470	2.16	cps
Krypton	83-1	483	340	437	420	17.41	cps
Lead	206-1	1513	1420	1237	1390	10.13	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S0 Instrumnet Name : P8
Client Sample ID : S0 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:29:45 DataFile Name : 004CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	1147	1173	1217	1179	3.00	cps
Lead	208-1	5774	5531	5154	5486	5.69	cps
Lithium	6-1	3486255	3294269	3403654	3394726	2.84	cps
Magnesium	24-2	543	573	527	548	4.32	cps
Manganese	55-2	1897	1713	1947	1852	6.63	cps
Molybdenum	94-1	673	637	610	640	4.97	cps
Molybdenum	95-1	713	680	663	686	3.71	cps
Molybdenum	96-1	750	730	767	749	2.45	cps
Molybdenum	97-1	433	457	467	452	3.78	cps
Molybdenum	98-1	940	923	1000	954	4.23	cps
Neodymium	150-1	10	7	10	9	21.63	cps
Neodymium	150-2	7	3	3	4	43.40	cps
Nickel	60-2	4164	4091	4114	4123	0.91	cps
Phosphorus	31-2	140	190	213	181	20.69	cps
Potassium	39-2	22932	22618	22251	22600	1.51	cps
Rhodium	103-1	9673288	9260292	8940552	9291377	3.95	cps
Rhodium	103-2	4031229	4014041	4076193	4040488	0.79	cps
Scandium	45-1	6498520	6212816	6152663	6288000	2.94	cps
Scandium	45-2	158928	156738	157107	157591	0.74	cps
Selenium	82-1	-47	60	-63	-17	-401.44	cps
Selenium	77-2	3	10	7	7	50.03	cps
Selenium	78-2	33	33	17	28	34.63	cps
Silicon	28-1	571260	553595	537775	554210	3.02	cps
Silver	107-1	177	130	133	147	17.75	cps
Silver	109-1	103	83	97	94	10.78	cps
Sodium	23-2	53525	54190	54388	54034	0.84	cps
Strontium	86-1	917	790	767	824	9.79	cps
Strontium	88-1	1970	1837	1650	1819	8.84	cps
Sulfur	34-1	763916	736517	736667	745700	2.12	cps
Terbium	159-1	11656076	11088329	10917232	11220546	3.45	cps
Terbium	159-2	4299745	4332975	4319946	4317555	0.39	cps
Thallium	203-1	230	187	227	214	11.24	cps
Thallium	205-1	547	537	477	520	7.28	cps
Tin	118-1	5048	8275	4668	5997	33.06	cps
Titanium	47-1	330	333	323	329	1.55	cps
Uranium	238-1	267	337	303	302	11.59	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S0 Instrumnet Name : P8
Client Sample ID : S0 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:29:45 DataFile Name : 004CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	53	90	103	82	31.49	cps
Ytterbium	172-1	50	40	53	48	14.52	cps
Ytterbium	172-2	23	30	27	27	12.51	cps
Ytterbium	176-1	1883	1753	1697	1778	5.38	cps
Ytterbium	176-2	517	543	480	513	6.19	cps
Yttrium	89-1	18019992	17272886	17016906	17436595	2.99	cps
Yttrium	89-2	1572589	1585227	1555831	1571215	0.94	cps
Zinc	66-2	5128	4988	5271	5129	2.76	cps
Zirconium	90-1	1107	820	1090	1006	16.00	cps
Zirconium	91-1	167	183	127	159	18.33	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S2 Instrumnet Name : P8
Client Sample ID : S2 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:36:29 DataFile Name : 006CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	3924	4311	3954	4063	5.30	cps
Antimony	121-1	80049	80002	80562	80204	0.39	cps
Arsenic	75-2	1180	1110	1110	1133	3.57	cps
Barium	135-1	97064	94651	95440	95718	1.29	cps
Barium	137-1	165637	163035	164996	164556	0.82	cps
Beryllium	9-1	9929	10064	10266	10086	1.68	cps
Bismuth	209-1	6324226	6227499	6277670	6276465	0.77	cps
Bismuth	209-2	3106042	3063504	3069635	3079727	0.75	cps
Bromine	81-1	29568	28970	29972	29503	1.71	cps
Cadmium	108-1	780	977	833	863	11.78	cps
Cadmium	106-1	8493	8326	8536	8452	1.31	cps
Cadmium	111-1	16237	15802	16306	16115	1.70	cps
Calcium	43-1	70069	70545	70006	70207	0.42	cps
Calcium	44-1	1162431	1156023	1159568	1159341	0.28	cps
Carbon	12-1	4505927	4413067	4295956	4404983	2.39	cps
Carbon	12-2	32736	32001	32452	32397	1.14	cps
Chlorine	35-1	200295	199325	201366	200329	0.51	cps
Chlorine	35-2	1083	1153	1037	1091	5.38	cps
Chromium	52-2	36804	36035	35574	36138	1.72	cps
Cobalt	59-2	20442	21039	20315	20598	1.88	cps
Copper	63-2	34154	34151	33416	33907	1.25	cps
Dysprosium	156-1	17	13	17	16	12.40	cps
Dysprosium	156-2	3	3	10	6	69.34	cps
Erbium	164-1	87	43	73	68	32.75	cps
Erbium	164-2	17	10	20	16	32.73	cps
Gadolinium	160-1	133	163	140	146	10.82	cps
Gadolinium	160-2	47	17	33	32	46.65	cps
Holmium	165-1	10743168	10628087	10627168	10666141	0.63	cps
Holmium	165-2	4343266	4339831	4313952	4332350	0.37	cps
Indium	115-1	9541157	9374321	9420075	9445184	0.91	cps
Indium	115-2	1174700	1168073	1164947	1169240	0.43	cps
Iron	54-2	26254	27012	25590	26285	2.71	cps
Iron	56-2	468676	462154	457204	462678	1.24	cps
Iron	57-2	11935	11555	11315	11601	2.70	cps
Krypton	83-1	443	347	437	409	13.21	cps
Lead	206-1	27496	27924	27479	27633	0.91	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S2 Instrumnet Name : P8
Client Sample ID : S2 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:36:29 DataFile Name : 006CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	23959	24380	23999	24112	0.96	cps
Lead	208-1	109695	110999	109635	110110	0.70	cps
Lithium	6-1	3356255	3328074	3313644	3332658	0.65	cps
Magnesium	24-2	315517	311778	306322	311206	1.49	cps
Manganese	55-2	6138	6538	6388	6355	3.18	cps
Molybdenum	94-1	87328	84884	85319	85844	1.52	cps
Molybdenum	95-1	103156	104231	104680	104022	0.75	cps
Molybdenum	96-1	114786	115324	114427	114846	0.39	cps
Molybdenum	97-1	64683	64710	64080	64491	0.55	cps
Molybdenum	98-1	166859	167659	167028	167182	0.25	cps
Neodymium	150-1	27	20	33	27	24.99	cps
Neodymium	150-2	7	0	10	6	91.64	cps
Nickel	60-2	9286	9627	9450	9454	1.80	cps
Phosphorus	31-2	570	523	470	521	9.60	cps
Potassium	39-2	239600	237612	235400	237537	0.88	cps
Rhodium	103-1	9202054	8943454	9078768	9074759	1.43	cps
Rhodium	103-2	4042605	4154991	4015213	4070937	1.82	cps
Scandium	45-1	6254709	6110474	6152045	6172410	1.20	cps
Scandium	45-2	156925	156225	154612	155921	0.76	cps
Selenium	82-1	3397	3261	3471	3376	3.16	cps
Selenium	77-2	80	103	73	86	18.41	cps
Selenium	78-2	307	327	320	318	3.20	cps
Silicon	28-1	715926	744457	710935	723773	2.50	cps
Silver	107-1	51723	52229	52687	52213	0.92	cps
Silver	109-1	49472	49084	49927	49494	0.85	cps
Sodium	23-2	677764	670718	663740	670741	1.05	cps
Strontium	86-1	14474	14748	14698	14640	1.00	cps
Strontium	88-1	118010	119130	121540	119560	1.51	cps
Sulfur	34-1	763061	763583	761439	762694	0.15	cps
Terbium	159-1	11207079	10925482	10888220	11006927	1.58	cps
Terbium	159-2	4346278	4345731	4322081	4338030	0.32	cps
Thallium	203-1	32547	32698	33002	32749	0.71	cps
Thallium	205-1	79096	79173	78811	79027	0.24	cps
Tin	118-1	169313	169434	171007	169918	0.56	cps
Titanium	47-1	30983	31084	30656	30908	0.72	cps
Uranium	238-1	97856	97732	98763	98117	0.57	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S2 Instrumnet Name : P8
Client Sample ID : S2 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:36:29 DataFile Name : 006CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	39855	39788	39511	39718	0.46	cps
Ytterbium	172-1	50	50	53	51	3.76	cps
Ytterbium	172-2	27	13	37	26	45.82	cps
Ytterbium	176-1	2010	1964	2004	1992	1.27	cps
Ytterbium	176-2	523	433	487	481	9.41	cps
Yttrium	89-1	16817090	16843784	17273742	16978205	1.51	cps
Yttrium	89-2	1568999	1581038	1562248	1570762	0.61	cps
Zinc	66-2	12876	13013	12592	12827	1.67	cps
Zirconium	90-1	72118	71991	72531	72213	0.39	cps
Zirconium	91-1	15983	15689	15846	15839	0.93	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S3 Instrumnet Name : P8
Client Sample ID : S3 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:39:50 DataFile Name : 007CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	163213	161708	164349	163090	0.81	cps
Antimony	121-1	1941243	1953640	1941213	1945365	0.37	cps
Arsenic	75-2	46938	47383	46530	46950	0.91	cps
Barium	135-1	2339692	2332306	2314717	2328905	0.55	cps
Barium	137-1	3972548	4005640	3910574	3962921	1.22	cps
Beryllium	9-1	458258	457635	458905	458266	0.14	cps
Bismuth	209-1	6120903	6162396	6152331	6145210	0.35	cps
Bismuth	209-2	3044404	2992287	3023963	3020218	0.87	cps
Bromine	81-1	29514	29504	28866	29295	1.27	cps
Cadmium	108-1	40218	40436	40175	40276	0.35	cps
Cadmium	106-1	63525	64523	64952	64333	1.14	cps
Cadmium	111-1	501449	505462	505657	504189	0.47	cps
Calcium	43-1	622343	625828	619488	622553	0.51	cps
Calcium	44-1	10040381	9839455	10051241	9977026	1.20	cps
Carbon	12-1	4660692	4624524	4507711	4597643	1.74	cps
Carbon	12-2	33946	33856	33639	33813	0.47	cps
Chlorine	35-1	228904	229734	229328	229322	0.18	cps
Chlorine	35-2	1297	1183	1210	1230	4.82	cps
Chromium	52-2	498689	493866	490056	494204	0.88	cps
Cobalt	59-2	888368	881895	872378	880880	0.91	cps
Copper	63-2	7702209	7623515	7619119	7648281	0.61	cps
Dysprosium	156-1	77	60	50	62	21.65	cps
Dysprosium	156-2	13	7	13	11	34.61	cps
Erbium	164-1	87	130	103	107	20.49	cps
Erbium	164-2	37	27	20	28	30.20	cps
Gadolinium	160-1	130	163	173	156	14.59	cps
Gadolinium	160-2	33	33	33	33	0.00	cps
Holmium	165-1	10600408	10567698	10659254	10609120	0.44	cps
Holmium	165-2	4283363	4304106	4285321	4290930	0.27	cps
Indium	115-1	9432824	9376000	9282785	9363869	0.81	cps
Indium	115-2	1142606	1125230	1129396	1132411	0.80	cps
Iron	54-2	1023912	1005837	1004363	1011370	1.08	cps
Iron	56-2	18664642	18385350	18654908	18568300	0.85	cps
Iron	57-2	468390	459506	460889	462928	1.03	cps
Krypton	83-1	400	400	420	407	2.84	cps
Lead	206-1	6371728	6446248	6491987	6436655	0.94	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S3 Instrumnet Name : P8
Client Sample ID : S3 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:39:50 DataFile Name : 007CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	5399389	5504000	5669981	5524457	2.47	cps
Lead	208-1	24802167	25299757	25547350	25216425	1.51	cps
Lithium	6-1	3385771	3231377	3309721	3308956	2.33	cps
Magnesium	24-2	2809152	2796662	2794202	2800005	0.29	cps
Manganese	55-2	2390684	2374680	2350002	2371789	0.86	cps
Molybdenum	94-1	6701074	6744263	6891847	6779061	1.48	cps
Molybdenum	95-1	9833560	9833430	9934868	9867286	0.59	cps
Molybdenum	96-1	10512157	10760989	10743239	10672128	1.30	cps
Molybdenum	97-1	5999990	6043172	5994416	6012526	0.44	cps
Molybdenum	98-1	15637969	15748117	15779455	15721847	0.47	cps
Neodymium	150-1	190	190	217	199	7.74	cps
Neodymium	150-2	13	20	3	12	68.66	cps
Nickel	60-2	251855	249559	247147	249521	0.94	cps
Phosphorus	31-2	8759	8763	8729	8750	0.21	cps
Potassium	39-2	1014833	999780	1005930	1006847	0.75	cps
Rhodium	103-1	8765719	8885130	9030210	8893686	1.49	cps
Rhodium	103-2	3940126	3958154	3919316	3939199	0.49	cps
Scandium	45-1	6297810	6169252	6095121	6187394	1.66	cps
Scandium	45-2	151385	149975	151114	150825	0.50	cps
Selenium	82-1	31633	31647	31757	31679	0.21	cps
Selenium	77-2	637	630	723	663	7.85	cps
Selenium	78-2	2624	2457	2430	2504	4.19	cps
Silicon	28-1	8576754	8675382	8522132	8591423	0.90	cps
Silver	107-1	2618446	2666005	2625720	2636724	0.97	cps
Silver	109-1	2447618	2475624	2491593	2471612	0.90	cps
Sodium	23-2	5643782	5554208	5538203	5578731	1.02	cps
Strontium	86-1	629394	626732	627128	627751	0.23	cps
Strontium	88-1	5528314	5529699	5553846	5537286	0.26	cps
Sulfur	34-1	927307	928874	921774	925985	0.40	cps
Terbium	159-1	11050886	11123670	11139554	11104703	0.43	cps
Terbium	159-2	4291916	4213739	4251149	4252268	0.92	cps
Thallium	203-1	1567108	1571282	1574013	1570801	0.22	cps
Thallium	205-1	3784811	3819439	3844962	3816404	0.79	cps
Tin	118-1	1518045	1584469	1522848	1541787	2.40	cps
Titanium	47-1	2837644	2776793	2769324	2794587	1.34	cps
Uranium	238-1	4545096	4633460	4620695	4599750	1.04	cps

LB Number :LB135332Operator :Jaswal

Lab Sample ID :S3Instrumnet Name :P8

Client Sample ID :S3Dilution Factor :1

Date & Time Acquired :2025-04-07 11:39:50DataFile Name :007CALB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	369273	362985	364093	365450	0.92	cps
Ytterbium	172-1	103	93	100	99	5.15	cps
Ytterbium	172-2	53	53	33	47	24.75	cps
Ytterbium	176-1	9280	9497	9320	9366	1.23	cps
Ytterbium	176-2	3410	3534	3574	3506	2.43	cps
Yttrium	89-1	17151261	16863800	17092249	17035770	0.89	cps
Yttrium	89-2	1542389	1507070	1517416	1522291	1.19	cps
Zinc	66-2	891475	889442	879513	886810	0.72	cps
Zirconium	90-1	3413030	3493050	3452332	3452804	1.16	cps
Zirconium	91-1	739544	752148	745964	745885	0.84	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S4 Instrumnet Name : P8
Client Sample ID : S4 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:42:51 DataFile Name : 008CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	392001	389300	391697	391000	0.38	cps
Antimony	121-1	4666672	4704825	4711968	4694488	0.52	cps
Arsenic	75-2	115371	116241	114188	115266	0.89	cps
Barium	135-1	5620760	5726708	5569471	5638979	1.42	cps
Barium	137-1	9686406	9755236	9507891	9649845	1.32	cps
Beryllium	9-1	1044268	1085026	1043070	1057454	2.26	cps
Bismuth	209-1	6114844	6105189	6184716	6134917	0.71	cps
Bismuth	209-2	2983772	2916083	2943225	2947693	1.16	cps
Bromine	81-1	28910	29441	28546	28966	1.55	cps
Cadmium	108-1	98126	98858	98831	98605	0.42	cps
Cadmium	106-1	144740	143312	143537	143863	0.53	cps
Cadmium	111-1	1205143	1220407	1219767	1215106	0.71	cps
Calcium	43-1	1474502	1504772	1471983	1483752	1.23	cps
Calcium	44-1	24162757	24150924	24152082	24155254	0.03	cps
Carbon	12-1	4759326	4731690	4658850	4716622	1.10	cps
Carbon	12-2	35352	35068	35359	35260	0.47	cps
Chlorine	35-1	228410	235435	233093	232313	1.54	cps
Chlorine	35-2	1223	1287	1240	1250	2.63	cps
Chromium	52-2	1191679	1187433	1176859	1185324	0.64	cps
Cobalt	59-2	2247158	2183381	2157959	2196166	2.09	cps
Copper	63-2	18427471	18630679	18497877	18518676	0.56	cps
Dysprosium	156-1	130	137	130	132	2.91	cps
Dysprosium	156-2	20	33	17	23	37.78	cps
Erbium	164-1	170	103	170	148	26.05	cps
Erbium	164-2	37	57	20	38	48.60	cps
Gadolinium	160-1	213	207	220	213	3.12	cps
Gadolinium	160-2	40	37	53	43	20.34	cps
Holmium	165-1	10711652	10691890	10585734	10663092	0.64	cps
Holmium	165-2	4388282	4212857	4340218	4313786	2.10	cps
Indium	115-1	9117317	9284871	9163180	9188456	0.94	cps
Indium	115-2	1111380	1105679	1103849	1106970	0.35	cps
Iron	54-2	2534561	2535416	2478397	2516125	1.30	cps
Iron	56-2	45107878	45021703	44777873	44969151	0.38	cps
Iron	57-2	1123990	1125143	1120563	1123232	0.21	cps
Krypton	83-1	480	427	420	442	7.44	cps
Lead	206-1	15706447	15840596	15784312	15777118	0.43	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S4 Instrumnet Name : P8
Client Sample ID : S4 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:42:51 DataFile Name : 008CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	13410532	13592891	13586628	13530017	0.77	cps
Lead	208-1	61350532	61941391	62214124	61835349	0.71	cps
Lithium	6-1	3244669	3287279	3247841	3259929	0.73	cps
Magnesium	24-2	6728202	6802388	6693614	6741401	0.82	cps
Manganese	55-2	5694189	5685420	5631894	5670501	0.59	cps
Molybdenum	94-1	16417296	16718434	16637218	16590983	0.94	cps
Molybdenum	95-1	23926078	24356584	24132636	24138433	0.89	cps
Molybdenum	96-1	26314848	26552114	26562757	26476573	0.53	cps
Molybdenum	97-1	14992133	14879393	15013537	14961688	0.48	cps
Molybdenum	98-1	38795408	38984889	38899405	38893234	0.24	cps
Neodymium	150-1	403	357	427	396	9.01	cps
Neodymium	150-2	47	30	23	33	36.07	cps
Nickel	60-2	595669	592518	590325	592837	0.45	cps
Phosphorus	31-2	20715	20929	20308	20650	1.53	cps
Potassium	39-2	2482157	2469895	2424738	2458930	1.23	cps
Rhodium	103-1	8895940	8773765	8860017	8843241	0.71	cps
Rhodium	103-2	3922939	3772415	3886673	3860675	2.03	cps
Scandium	45-1	6036877	6007488	5952065	5998810	0.72	cps
Scandium	45-2	151114	150889	148733	150245	0.88	cps
Selenium	82-1	74867	76637	76365	75957	1.25	cps
Selenium	77-2	1640	1720	1737	1699	3.04	cps
Selenium	78-2	5508	5915	5868	5763	3.86	cps
Silicon	28-1	19984161	19909766	19677670	19857199	0.81	cps
Silver	107-1	6364551	6278370	6253841	6298920	0.92	cps
Silver	109-1	5968322	5993141	5985802	5982422	0.21	cps
Sodium	23-2	13465415	13485621	13611284	13520773	0.58	cps
Strontium	86-1	1575014	1596612	1574029	1581885	0.81	cps
Strontium	88-1	13514717	13509611	13505539	13509955	0.03	cps
Sulfur	34-1	1057457	1053401	1054133	1054997	0.20	cps
Terbium	159-1	10842943	10987495	10972481	10934306	0.73	cps
Terbium	159-2	4251988	4201786	4228064	4227280	0.59	cps
Thallium	203-1	4012291	4029472	4048353	4030038	0.45	cps
Thallium	205-1	9201199	9223688	9317067	9247318	0.66	cps
Tin	118-1	3730498	3788779	3823209	3780829	1.24	cps
Titanium	47-1	6683910	6718126	6711188	6704408	0.27	cps
Uranium	238-1	11147812	11305887	11202764	11218821	0.72	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S4 Instrumnet Name : P8
Client Sample ID : S4 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:42:51 DataFile Name : 008CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	899829	891747	890219	893932	0.58	cps
Ytterbium	172-1	137	133	157	142	8.87	cps
Ytterbium	172-2	90	63	73	76	17.83	cps
Ytterbium	176-1	20339	20603	20189	20377	1.03	cps
Ytterbium	176-2	7912	7712	7842	7822	1.30	cps
Yttrium	89-1	16850708	16855511	16718507	16808242	0.46	cps
Yttrium	89-2	1512462	1450071	1488588	1483707	2.12	cps
Zinc	66-2	2179900	2209378	2189421	2192900	0.69	cps
Zirconium	90-1	8354540	8387892	8354202	8365545	0.23	cps
Zirconium	91-1	1840673	1879408	1846481	1855521	1.13	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S5 Instrumnet Name : P8
Client Sample ID : S5 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:45:39 DataFile Name : 009CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	762053	768172	755498	761908	0.83	cps
Antimony	121-1	8993736	9165610	9011595	9056980	1.04	cps
Arsenic	75-2	225950	226262	223782	225331	0.60	cps
Barium	135-1	10844887	10936690	10878661	10886746	0.43	cps
Barium	137-1	18576689	18790215	18694350	18687085	0.57	cps
Beryllium	9-1	1997503	2035195	2065503	2032734	1.68	cps
Bismuth	209-1	6117815	5961556	6016339	6031903	1.31	cps
Bismuth	209-2	2898560	2880957	2925525	2901680	0.77	cps
Bromine	81-1	28292	29668	30300	29420	3.49	cps
Cadmium	108-1	186487	189050	191021	188853	1.20	cps
Cadmium	106-1	271681	271497	270386	271188	0.26	cps
Cadmium	111-1	2405018	2456233	2453344	2438198	1.18	cps
Calcium	43-1	2946943	2910122	2898166	2918410	0.87	cps
Calcium	44-1	47287188	46966339	47281691	47178406	0.39	cps
Carbon	12-1	4999048	4993976	4903651	4965558	1.08	cps
Carbon	12-2	37945	37561	37959	37822	0.60	cps
Chlorine	35-1	238727	245565	245250	243181	1.59	cps
Chlorine	35-2	1183	1253	1280	1239	4.03	cps
Chromium	52-2	2409607	2390601	2330257	2376822	1.74	cps
Cobalt	59-2	4252058	4307378	4227644	4262360	0.96	cps
Copper	63-2	35778230	35556220	35649004	35661152	0.31	cps
Dysprosium	156-1	233	220	243	232	5.04	cps
Dysprosium	156-2	60	47	57	54	12.74	cps
Erbium	164-1	203	277	210	230	17.63	cps
Erbium	164-2	77	90	67	78	15.05	cps
Gadolinium	160-1	253	223	250	242	6.79	cps
Gadolinium	160-2	63	53	63	60	9.62	cps
Holmium	165-1	10670365	10897352	10479156	10682291	1.96	cps
Holmium	165-2	4291029	4268475	4264947	4274817	0.33	cps
Indium	115-1	9105048	9230590	9002756	9112798	1.25	cps
Indium	115-2	1085080	1089261	1083366	1085903	0.28	cps
Iron	54-2	4833500	4856035	4776195	4821910	0.85	cps
Iron	56-2	87211262	87826222	86941149	87326211	0.52	cps
Iron	57-2	2207375	2260432	2240638	2236148	1.20	cps
Krypton	83-1	390	483	343	406	17.58	cps
Lead	206-1	30654903	30911179	30014478	30526853	1.51	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S5 Instrumnet Name : P8
Client Sample ID : S5 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:45:39 DataFile Name : 009CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	26259418	25814111	25899504	25991011	0.91	cps
Lead	208-1	120766353	119307884	119605699	119893312	0.64	cps
Lithium	6-1	3214370	3218731	3192543	3208548	0.44	cps
Magnesium	24-2	13310214	13076799	13169655	13185556	0.89	cps
Manganese	55-2	11185253	11263188	10893734	11114058	1.75	cps
Molybdenum	94-1	32261516	32871002	32619348	32583955	0.94	cps
Molybdenum	95-1	46970258	47457234	47586283	47337925	0.69	cps
Molybdenum	96-1	51851234	51726139	51479826	51685733	0.37	cps
Molybdenum	97-1	29333099	29724737	29041081	29366306	1.17	cps
Molybdenum	98-1	76183439	77065819	74916862	76055373	1.42	cps
Neodymium	150-1	780	690	783	751	7.05	cps
Neodymium	150-2	23	57	43	41	40.82	cps
Nickel	60-2	1131343	1142341	1130912	1134865	0.57	cps
Phosphorus	31-2	41268	40844	40744	40952	0.68	cps
Potassium	39-2	4722173	4736928	4684580	4714560	0.57	cps
Rhodium	103-1	8775173	8778544	8447056	8666924	2.20	cps
Rhodium	103-2	3825256	3818902	3798879	3814346	0.36	cps
Scandium	45-1	6067093	5982408	5986113	6011871	0.80	cps
Scandium	45-2	149899	150414	151472	150595	0.53	cps
Selenium	82-1	147133	151180	147689	148667	1.48	cps
Selenium	77-2	3277	3134	3260	3224	2.43	cps
Selenium	78-2	11448	11074	11071	11198	1.93	cps
Silicon	28-1	38709179	39176609	38631985	38839258	0.76	cps
Silver	107-1	11996501	11937464	12139490	12024485	0.86	cps
Silver	109-1	11597631	11629114	11645593	11624113	0.21	cps
Sodium	23-2	26479810	26342080	26494305	26438732	0.32	cps
Strontium	86-1	3098982	3081826	3082374	3087727	0.32	cps
Strontium	88-1	26654712	26830300	26628999	26704670	0.41	cps
Sulfur	34-1	1388378	1380859	1367868	1379035	0.75	cps
Terbium	159-1	11136435	11154568	10997667	11096223	0.77	cps
Terbium	159-2	4225364	4261988	4161439	4216264	1.21	cps
Thallium	203-1	7765344	7835670	7584407	7728474	1.68	cps
Thallium	205-1	18327949	18357168	17815398	18166838	1.68	cps
Tin	118-1	7480234	7585882	7323580	7463232	1.77	cps
Titanium	47-1	13162120	13061566	13023958	13082548	0.55	cps
Uranium	238-1	22044265	21570913	22269753	21961643	1.62	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S5 Instrumnet Name : P8
Client Sample ID : S5 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:45:39 DataFile Name : 009CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	1772448	1752336	1762402	1762395	0.57	cps
Ytterbium	172-1	197	207	170	191	9.92	cps
Ytterbium	172-2	117	133	97	116	15.89	cps
Ytterbium	176-1	37517	38590	37877	37995	1.44	cps
Ytterbium	176-2	15225	14925	15256	15135	1.21	cps
Yttrium	89-1	16819311	16674346	16683508	16725722	0.49	cps
Yttrium	89-2	1490259	1506242	1504087	1500196	0.58	cps
Zinc	66-2	4176482	4178931	4227503	4194305	0.69	cps
Zirconium	90-1	16348927	16601546	16478412	16476295	0.77	cps
Zirconium	91-1	3637687	3651162	3702866	3663905	0.94	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S6 Instrumnet Name : P8
Client Sample ID : S6 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:48:26 DataFile Name : 010CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1482213	1466199	1463197	1470536	0.70	cps
Antimony	121-1	17875270	17793118	17815615	17828001	0.24	cps
Arsenic	75-2	441758	438420	443860	441346	0.62	cps
Barium	135-1	21687408	21622136	21649385	21652976	0.15	cps
Barium	137-1	36948380	36942020	37102097	36997499	0.24	cps
Beryllium	9-1	3880855	3882860	3937990	3900569	0.83	cps
Bismuth	209-1	5521157	5823219	5860022	5734799	3.24	cps
Bismuth	209-2	2804497	2830122	2814885	2816501	0.46	cps
Bromine	81-1	29334	29802	29414	29517	0.85	cps
Cadmium	108-1	366617	364742	367811	366390	0.42	cps
Cadmium	106-1	522198	523190	524129	523173	0.18	cps
Cadmium	111-1	4675972	4683062	4746518	4701851	0.83	cps
Calcium	43-1	5621517	5725833	5664666	5670672	0.92	cps
Calcium	44-1	91894022	92968502	91916002	92259509	0.67	cps
Carbon	12-1	5346472	5402107	5425341	5391307	0.75	cps
Carbon	12-2	43073	43009	43003	43028	0.09	cps
Chlorine	35-1	265761	269173	272504	269146	1.25	cps
Chlorine	35-2	1433	1453	1500	1462	2.34	cps
Chromium	52-2	4637902	4605422	4516374	4586566	1.37	cps
Cobalt	59-2	8164300	8176408	8248048	8196252	0.55	cps
Copper	63-2	68405177	68693869	68972146	68690397	0.41	cps
Dysprosium	156-1	373	507	383	421	17.64	cps
Dysprosium	156-2	70	90	77	79	12.91	cps
Erbium	164-1	287	337	360	328	11.43	cps
Erbium	164-2	133	120	97	117	15.91	cps
Gadolinium	160-1	257	333	370	320	18.07	cps
Gadolinium	160-2	97	100	100	99	1.94	cps
Holmium	165-1	9815222	10598976	10397739	10270645	3.96	cps
Holmium	165-2	4237479	4243150	4348013	4276214	1.46	cps
Indium	115-1	8208649	8662127	8743664	8538146	3.38	cps
Indium	115-2	1022355	1023352	1036780	1027496	0.78	cps
Iron	54-2	9538683	9415547	9356245	9436825	0.99	cps
Iron	56-2	172559391	171394377	171405184	171786317	0.39	cps
Iron	57-2	4328044	4320850	4359134	4336009	0.47	cps
Krypton	83-1	433	370	487	430	13.58	cps
Lead	206-1	58456724	59466684	59146251	59023220	0.87	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S6 Instrumnet Name : P8
Client Sample ID : S6 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:48:26 DataFile Name : 010CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	50459104	51014678	50433186	50635656	0.65	cps
Lead	208-1	231416747	234901756	232687015	233001839	0.76	cps
Lithium	6-1	3038931	3140856	3170445	3116744	2.21	cps
Magnesium	24-2	25886998	25993529	25800528	25893685	0.37	cps
Manganese	55-2	21838514	21771906	21710212	21773544	0.29	cps
Molybdenum	94-1	64051919	63781362	65315867	64383050	1.27	cps
Molybdenum	95-1	93122455	91849805	93729219	92900493	1.03	cps
Molybdenum	96-1	101773998	100815322	102469552	101686291	0.82	cps
Molybdenum	97-1	57005246	57425586	57272749	57234527	0.37	cps
Molybdenum	98-1	150959574	149633898	149554044	150049172	0.53	cps
Neodymium	150-1	1453	1503	1550	1502	3.22	cps
Neodymium	150-2	93	93	110	99	9.73	cps
Nickel	60-2	2347889	2318285	2359099	2341757	0.90	cps
Phosphorus	31-2	79747	80220	79741	79903	0.34	cps
Potassium	39-2	9368743	9423496	9239495	9343911	1.01	cps
Rhodium	103-1	7816075	8350933	8350064	8172357	3.78	cps
Rhodium	103-2	3699323	3682958	3682800	3688360	0.26	cps
Scandium	45-1	5541198	5914157	5950423	5801926	3.90	cps
Scandium	45-2	148818	152465	149107	150130	1.35	cps
Selenium	82-1	282352	285807	288732	285631	1.12	cps
Selenium	77-2	6692	6158	6251	6367	4.48	cps
Selenium	78-2	22201	21633	21700	21845	1.42	cps
Silicon	28-1	74240337	74029867	73445154	73905119	0.56	cps
Silver	107-1	23476669	23392354	23521560	23463528	0.28	cps
Silver	109-1	22213476	22418399	22240261	22290712	0.50	cps
Sodium	23-2	52291733	52073113	51994616	52119820	0.30	cps
Strontium	86-1	6030508	6063723	5947469	6013900	1.00	cps
Strontium	88-1	52348968	53108688	52147869	52535175	0.96	cps
Sulfur	34-1	2027353	2029649	2051844	2036282	0.66	cps
Terbium	159-1	10104625	10864557	10840549	10603244	4.07	cps
Terbium	159-2	4199140	4156384	4150690	4168738	0.64	cps
Thallium	203-1	14772540	14902384	14982991	14885972	0.71	cps
Thallium	205-1	34960144	35229793	35643925	35277954	0.98	cps
Tin	118-1	14466636	14548947	14452101	14489228	0.36	cps
Titanium	47-1	25755706	25925782	25785425	25822305	0.35	cps
Uranium	238-1	43143630	43333843	43737619	43405031	0.70	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S6 Instrumnet Name : P8
Client Sample ID : S6 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:48:26 DataFile Name : 010CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	3487707	3458640	3426739	3457696	0.88	cps
Ytterbium	172-1	347	277	373	332	15.03	cps
Ytterbium	172-2	180	177	183	180	1.85	cps
Ytterbium	176-1	73272	72678	73851	73267	0.80	cps
Ytterbium	176-2	28832	29145	28203	28727	1.67	cps
Yttrium	89-1	15528418	16879211	16502886	16303505	4.28	cps
Yttrium	89-2	1491722	1497741	1476419	1488627	0.74	cps
Zinc	66-2	8060392	7997504	8235776	8097891	1.52	cps
Zirconium	90-1	32346708	32891697	32639754	32626053	0.84	cps
Zirconium	91-1	7232736	7202117	7233446	7222766	0.25	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S7 Instrumnet Name : P8
Client Sample ID : S7 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:51:11 DataFile Name : 011CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2968381	2980581	2925810	2958258	0.97	cps
Antimony	121-1	34987019	34955107	35358316	35100148	0.64	cps
Arsenic	75-2	874342	864020	862917	867093	0.73	cps
Barium	135-1	42421554	42623176	43018626	42687785	0.71	cps
Barium	137-1	72497381	73246457	73294834	73012891	0.61	cps
Beryllium	9-1	7650947	7668135	7712427	7677170	0.41	cps
Bismuth	209-1	5644073	5506498	5573693	5574755	1.23	cps
Bismuth	209-2	2700224	2757229	2706038	2721164	1.15	cps
Bromine	81-1	29701	30166	29835	29901	0.80	cps
Cadmium	108-1	708920	707348	715882	710717	0.64	cps
Cadmium	106-1	1014753	1011785	1027296	1017945	0.81	cps
Cadmium	111-1	8993803	8984402	8971972	8983392	0.12	cps
Calcium	43-1	11391267	11386294	11333019	11370194	0.28	cps
Calcium	44-1	184930144	184854117	184279931	184688064	0.19	cps
Carbon	12-1	6327187	6473602	6630077	6476955	2.34	cps
Carbon	12-2	53126	54246	54035	53802	1.11	cps
Chlorine	35-1	326837	335049	340768	334218	2.10	cps
Chlorine	35-2	1927	1883	1860	1890	1.79	cps
Chromium	52-2	8978077	8986779	8839034	8934630	0.93	cps
Cobalt	59-2	16157206	16177359	16103720	16146095	0.24	cps
Copper	63-2	133836795	134041231	133224678	133700901	0.32	cps
Dysprosium	156-1	817	960	923	900	8.27	cps
Dysprosium	156-2	140	183	173	166	13.71	cps
Erbium	164-1	540	520	663	574	13.51	cps
Erbium	164-2	223	193	207	208	7.23	cps
Gadolinium	160-1	457	443	550	483	12.03	cps
Gadolinium	160-2	223	183	173	193	13.68	cps
Holmium	165-1	10323356	10484794	10284365	10364172	1.03	cps
Holmium	165-2	4231975	4159732	4280370	4224026	1.44	cps
Indium	115-1	8241871	8195240	8235877	8224329	0.31	cps
Indium	115-2	946410	945451	946138	946000	0.05	cps
Iron	54-2	18378044	18683204	18359836	18473695	0.98	cps
Iron	56-2	334951088	338615322	334745662	336104024	0.65	cps
Iron	57-2	8592941	8508503	8576799	8559414	0.52	cps
Krypton	83-1	503	460	417	460	9.42	cps
Lead	206-1	115724572	116045548	117411438	116393853	0.77	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S7 Instrumnet Name : P8
Client Sample ID : S7 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:51:11 DataFile Name : 011CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	98457045	97900199	99666112	98674452	0.91	cps
Lead	208-1	451933807	452839930	460094106	454955948	0.98	cps
Lithium	6-1	3136578	3184207	3164509	3161765	0.76	cps
Magnesium	24-2	51041919	51017549	50953471	51004313	0.09	cps
Manganese	55-2	42669616	43445451	42497429	42870832	1.18	cps
Molybdenum	94-1	125632728	128530518	129545595	127902947	1.59	cps
Molybdenum	95-1	184728204	186902557	186567651	186066137	0.63	cps
Molybdenum	96-1	202080357	203507244	204593524	203393708	0.62	cps
Molybdenum	97-1	111605422	114205088	115255115	113688542	1.65	cps
Molybdenum	98-1	296261676	298129202	301772716	298721198	0.94	cps
Neodymium	150-1	3087	3084	2897	3023	3.60	cps
Neodymium	150-2	170	190	153	171	10.73	cps
Nickel	60-2	4523383	4411807	4463728	4466306	1.25	cps
Phosphorus	31-2	156868	158269	155196	156778	0.98	cps
Potassium	39-2	18780481	18738783	18526309	18681858	0.73	cps
Rhodium	103-1	8113882	8091481	8231226	8145529	0.92	cps
Rhodium	103-2	3566599	3594183	3644277	3601686	1.09	cps
Scandium	45-1	6014477	5975769	6055416	6015221	0.66	cps
Scandium	45-2	155990	156262	155012	155755	0.42	cps
Selenium	82-1	555846	552756	555956	554853	0.33	cps
Selenium	77-2	12549	12903	12285	12579	2.46	cps
Selenium	78-2	41855	42434	41384	41891	1.26	cps
Silicon	28-1	139777921	140125455	139431231	139778202	0.25	cps
Silver	107-1	44747498	45826321	45159358	45244392	1.20	cps
Silver	109-1	42181143	42117813	42181143	42160033	0.09	cps
Sodium	23-2	103702412	103444975	104442865	103863417	0.50	cps
Strontium	86-1	11766080	11961752	11919502	11882445	0.87	cps
Strontium	88-1	101742352	103340735	103733935	102939007	1.02	cps
Sulfur	34-1	3415410	3442228	3436085	3431241	0.41	cps
Terbium	159-1	10607710	10669760	10703069	10660180	0.45	cps
Terbium	159-2	4107934	4157807	4150033	4138592	0.65	cps
Thallium	203-1	29199665	29404662	29192960	29265763	0.41	cps
Thallium	205-1	68848616	69817066	69680072	69448585	0.75	cps
Tin	118-1	28191496	28391683	28376793	28319991	0.39	cps
Titanium	47-1	51597256	52147931	52022986	51922724	0.56	cps
Uranium	238-1	85336085	85293705	85194900	85274897	0.08	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S7 Instrumnet Name : P8
Client Sample ID : S7 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:51:11 DataFile Name : 011CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	6777420	6880186	6838092	6831899	0.76	cps
Ytterbium	172-1	613	703	803	707	13.45	cps
Ytterbium	172-2	320	293	307	307	4.35	cps
Ytterbium	176-1	143221	144319	145003	144181	0.62	cps
Ytterbium	176-2	57846	57498	57069	57471	0.68	cps
Yttrium	89-1	16068455	16293138	16550419	16304004	1.48	cps
Yttrium	89-2	1402888	1492844	1470830	1455521	3.22	cps
Zinc	66-2	15828644	15648638	15618435	15698572	0.72	cps
Zirconium	90-1	63435464	64783706	65889766	64702978	1.90	cps
Zirconium	91-1	14253568	14679959	14709155	14547561	1.75	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S8 Instrumnet Name : P8
Client Sample ID : S8 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:54:02 DataFile Name : 012CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	13982132	14388730	14360281	14243715	1.59	cps
Antimony	121-1	15102	14648	13957	14569	3.96	cps
Arsenic	75-2	443	367	413	408	9.47	cps
Barium	135-1	14832	14718	14748	14766	0.40	cps
Barium	137-1	26356	25678	24863	25632	2.92	cps
Beryllium	9-1	377	316	250	315	20.12	cps
Bismuth	209-1	4762122	4594762	4692935	4683273	1.80	cps
Bismuth	209-2	2361286	2320072	2286304	2322554	1.62	cps
Bromine	81-1	29040	28689	28399	28709	1.12	cps
Cadmium	108-1	223	240	307	257	17.18	cps
Cadmium	106-1	6235	6452	6301	6329	1.75	cps
Cadmium	111-1	5541	5488	5370	5466	1.61	cps
Calcium	43-1	49616864	49780381	49976706	49791317	0.36	cps
Calcium	44-1	818769428	813226361	815856228	815950672	0.34	cps
Carbon	12-1	5327062	5231278	5198959	5252433	1.27	cps
Carbon	12-2	56334	55792	57170	56432	1.23	cps
Chlorine	35-1	206041	204019	202465	204175	0.88	cps
Chlorine	35-2	1183	1297	1287	1256	5.00	cps
Chromium	52-2	70603	70750	72640	71331	1.59	cps
Cobalt	59-2	32093	31879	32908	32293	1.68	cps
Copper	63-2	95897	96807	96931	96545	0.58	cps
Dysprosium	156-1	1040	1037	1133	1070	5.13	cps
Dysprosium	156-2	307	403	353	354	13.64	cps
Erbium	164-1	1290	1310	1107	1236	9.07	cps
Erbium	164-2	393	507	540	480	16.02	cps
Gadolinium	160-1	1000	897	1037	978	7.42	cps
Gadolinium	160-2	453	430	393	426	7.11	cps
Holmium	165-1	9386245	9351111	9118761	9285372	1.57	cps
Holmium	165-2	3904473	3944538	3929613	3926208	0.52	cps
Indium	115-1	7687338	7616813	7634949	7646367	0.48	cps
Indium	115-2	988696	990952	999540	993063	0.58	cps
Iron	54-2	82205592	83224857	84206269	83212239	1.20	cps
Iron	56-2	1549287070	1548809310	1541175390	1546423924	0.29	cps
Iron	57-2	38666059	39372296	39371041	39136466	1.04	cps
Krypton	83-1	457	483	533	491	7.93	cps
Lead	206-1	77242	76775	75344	76454	1.29	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S8 Instrumnet Name : P8
Client Sample ID : S8 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:54:02 DataFile Name : 012CAL.S.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	64784	64915	63706	64468	1.03	cps
Lead	208-1	302550	297108	294969	298209	1.31	cps
Lithium	6-1	2803438	2823042	2788226	2804902	0.62	cps
Magnesium	24-2	237344690	237313690	236359723	237006034	0.24	cps
Manganese	55-2	21556	21269	21046	21290	1.20	cps
Molybdenum	94-1	23223	22452	22118	22597	2.51	cps
Molybdenum	95-1	22004	21507	20959	21490	2.43	cps
Molybdenum	96-1	39092	37985	36939	38005	2.83	cps
Molybdenum	97-1	13937	12552	12462	12984	6.37	cps
Molybdenum	98-1	34022	32729	31068	32606	4.54	cps
Neodymium	150-1	543	567	627	579	7.43	cps
Neodymium	150-2	197	190	140	176	17.64	cps
Nickel	60-2	33646	33767	33910	33775	0.39	cps
Phosphorus	31-2	247	193	247	229	13.45	cps
Potassium	39-2	92021085	91463855	92017162	91834034	0.35	cps
Rhodium	103-1	6845472	6996270	6853501	6898414	1.23	cps
Rhodium	103-2	3154075	3132512	3174641	3153743	0.67	cps
Scandium	45-1	5386564	5443868	5424753	5418395	0.54	cps
Scandium	45-2	145616	144098	144861	144858	0.52	cps
Selenium	82-1	373	287	470	377	24.35	cps
Selenium	77-2	13	3	0	6	124.93	cps
Selenium	78-2	57	43	47	49	14.20	cps
Silicon	28-1	962683	913594	1059987	978755	7.61	cps
Silver	107-1	4341	3957	3470	3923	11.12	cps
Silver	109-1	3944	3947	3334	3742	9.44	cps
Sodium	23-2	486023006	488833286	486373286	487076526	0.31	cps
Strontium	86-1	35448	34773	34773	34998	1.11	cps
Strontium	88-1	299443	299170	301312	299975	0.39	cps
Sulfur	34-1	606333	594810	597518	599554	1.00	cps
Terbium	159-1	9695321	9617660	9590987	9634656	0.56	cps
Terbium	159-2	3805847	3846031	3829917	3827265	0.53	cps
Thallium	203-1	2087	1810	1650	1849	11.95	cps
Thallium	205-1	4878	4261	3957	4365	10.74	cps
Tin	118-1	10548	9800	10111	10153	3.70	cps
Titanium	47-1	4037	3797	4014	3949	3.35	cps
Uranium	238-1	3674	3030	2717	3140	15.53	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : S8 Instrumnet Name : P8
Client Sample ID : S8 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 11:54:02 DataFile Name : 012CALS.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	1797	1743	1543	1695	7.88	cps
Ytterbium	172-1	1924	2047	2010	1994	3.18	cps
Ytterbium	172-2	807	843	930	860	7.36	cps
Ytterbium	176-1	2664	2767	2714	2715	1.90	cps
Ytterbium	176-2	957	1057	923	979	7.09	cps
Yttrium	89-1	14915256	14653568	14798153	14788992	0.89	cps
Yttrium	89-2	1380806	1382381	1397300	1386829	0.66	cps
Zinc	66-2	29063	29093	29377	29178	0.59	cps
Zirconium	90-1	28155	27604	26726	27495	2.62	cps
Zirconium	91-1	6225	6175	5998	6133	1.94	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : ICV01 Instrumnet Name : P8
Client Sample ID : ICV01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 12:40:43 DataFile Name : 017ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	77170	77368	75635	76724	1.24	cps
Antimony	121-1	7329904	7240271	7287060	7285745	0.62	cps
Arsenic	75-2	190243	187530	185157	187643	1.36	cps
Barium	135-1	853632	860718	870295	861548	0.97	cps
Barium	137-1	1557888	1531854	1512582	1534108	1.48	cps
Beryllium	9-1	807378	802644	809141	806388	0.42	cps
Bismuth	209-1	6285840	6469071	6245343	6333418	1.88	cps
Bismuth	209-2	2998753	2995382	2968030	2987388	0.56	cps
Bromine	81-1	30507	31408	31005	30973	1.46	cps
Cadmium	108-1	132816	134146	134769	133910	0.74	cps
Cadmium	106-1	207030	207259	206741	207010	0.13	cps
Cadmium	111-1	1007333	1023791	1023966	1018364	0.94	cps
Calcium	43-1	271247	273953	272598	272599	0.50	cps
Calcium	44-1	4209891	4183348	4226703	4206647	0.52	cps
Carbon	12-1	6250565	6360555	6358367	6323162	0.99	cps
Carbon	12-2	45727	46627	46426	46260	1.02	cps
Chlorine	35-1	241203	246539	248481	245408	1.54	cps
Chlorine	35-2	1390	1407	1447	1415	2.06	cps
Chromium	52-2	982238	972475	968668	974460	0.72	cps
Cobalt	59-2	1828674	1833845	1817134	1826551	0.47	cps
Copper	63-2	1362211	1355574	1360820	1359535	0.26	cps
Dysprosium	156-1	60	40	57	52	20.52	cps
Dysprosium	156-2	20	20	10	17	34.64	cps
Erbium	164-1	97	93	73	88	14.38	cps
Erbium	164-2	47	33	23	34	34.00	cps
Gadolinium	160-1	120	143	113	126	12.55	cps
Gadolinium	160-2	33	50	30	38	28.37	cps
Holmium	165-1	10908114	10837478	10920107	10888566	0.41	cps
Holmium	165-2	4327159	4347164	4324758	4333027	0.28	cps
Indium	115-1	9421270	9361817	9373168	9385418	0.34	cps
Indium	115-2	1093787	1100727	1086905	1093806	0.63	cps
Iron	54-2	801177	798346	800212	799912	0.18	cps
Iron	56-2	14587345	14200479	14469080	14418968	1.37	cps
Iron	57-2	358619	356481	358355	357818	0.33	cps
Krypton	83-1	443	420	353	406	11.52	cps
Lead	206-1	5323072	5283943	5270467	5292494	0.52	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : ICV01 Instrumnet Name : P8
Client Sample ID : ICV01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 12:40:43 DataFile Name : 017ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	4389148	4371934	4421010	4394031	0.57	cps
Lead	208-1	20391427	20529823	20514651	20478634	0.37	cps
Lithium	6-1	3487382	3486662	3465138	3479728	0.36	cps
Magnesium	24-2	647220	641699	645914	644944	0.45	cps
Manganese	55-2	440431	432240	437131	436601	0.94	cps
Molybdenum	94-1	67041996	66148239	66743787	66644674	0.68	cps
Molybdenum	95-1	96331739	94553279	96829655	95904891	1.25	cps
Molybdenum	96-1	105967832	104598645	104372328	104979602	0.82	cps
Molybdenum	97-1	59103062	59736192	58774534	59204596	0.83	cps
Molybdenum	98-1	154248174	155615084	152598768	154154009	0.98	cps
Neodymium	150-1	87	57	90	78	23.60	cps
Neodymium	150-2	3	7	0	3	100.05	cps
Nickel	60-2	516462	514548	515110	515373	0.19	cps
Phosphorus	31-2	153	180	193	176	11.60	cps
Potassium	39-2	803664	794106	792362	796711	0.76	cps
Rhodium	103-1	9166132	9377705	9215280	9253039	1.20	cps
Rhodium	103-2	4026608	4073148	3959117	4019624	1.43	cps
Scandium	45-1	6508457	6368040	6387674	6421390	1.18	cps
Scandium	45-2	164708	167524	165996	166076	0.85	cps
Selenium	82-1	120422	122802	122207	121811	1.02	cps
Selenium	77-2	2857	2694	2707	2753	3.30	cps
Selenium	78-2	9560	9183	9657	9467	2.64	cps
Silicon	28-1	10251853	10388728	10324280	10321620	0.66	cps
Silver	107-1	2482933	2488362	2494389	2488561	0.23	cps
Silver	109-1	2343773	2296588	2291579	2310647	1.25	cps
Sodium	23-2	2319122	2278711	2307293	2301708	0.90	cps
Strontium	86-1	6394981	6525584	6407154	6442573	1.12	cps
Strontium	88-1	55925896	56585326	56286146	56265789	0.59	cps
Sulfur	34-1	639495	642824	639223	640514	0.31	cps
Terbium	159-1	11212283	11125265	11263181	11200243	0.62	cps
Terbium	159-2	4262116	4202845	4246386	4237116	0.72	cps
Thallium	203-1	6576111	6507739	6463800	6515883	0.87	cps
Thallium	205-1	15310691	15253827	15351544	15305354	0.32	cps
Tin	118-1	15468550	15204206	15378624	15350460	0.88	cps
Titanium	47-1	26904655	26943964	26964613	26937744	0.11	cps
Uranium	238-1	47565578	48228429	48117613	47970540	0.74	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : ICV01 Instrumnet Name : P8
Client Sample ID : ICV01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 12:40:43 DataFile Name : 017ICV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	706362	706600	707598	706853	0.09	cps
Ytterbium	172-1	307	297	310	304	2.28	cps
Ytterbium	172-2	140	147	193	160	18.16	cps
Ytterbium	176-1	71586	72625	73372	72527	1.24	cps
Ytterbium	176-2	28488	28380	29196	28688	1.54	cps
Yttrium	89-1	17876097	17669095	17710607	17751933	0.62	cps
Yttrium	89-2	1632866	1618149	1575071	1608695	1.87	cps
Zinc	66-2	348582	345919	342951	345817	0.81	cps
Zirconium	90-1	34011974	33197750	34343067	33850930	1.74	cps
Zirconium	91-1	7540693	7374467	7579730	7498297	1.45	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : LLICV Instrumnet Name : P8
Client Sample ID : LLICV Dilution Factor : 1
Date & Time Acquired : 2025-04-07 12:44:45 DataFile Name : 018LLIC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	3967	4147	4317	4144	4.22	cps
Antimony	121-1	70990	71529	69646	70722	1.37	cps
Arsenic	75-2	943	993	877	938	6.24	cps
Barium	135-1	84125	83237	83250	83538	0.61	cps
Barium	137-1	143198	144523	143623	143781	0.47	cps
Beryllium	9-1	9276	8919	9037	9078	2.00	cps
Bismuth	209-1	6394645	6240712	6303997	6313118	1.23	cps
Bismuth	209-2	3004824	3020810	2961833	2995822	1.02	cps
Bromine	81-1	31345	31519	32290	31718	1.59	cps
Cadmium	108-1	717	747	710	724	2.70	cps
Cadmium	106-1	8186	7652	7515	7784	4.55	cps
Cadmium	111-1	14341	14067	14281	14230	1.01	cps
Calcium	43-1	66345	67189	67220	66918	0.74	cps
Calcium	44-1	1098109	1102774	1100418	1100434	0.21	cps
Carbon	12-1	5206235	5081097	4986130	5091154	2.17	cps
Carbon	12-2	36462	36114	36499	36358	0.58	cps
Chlorine	35-1	211228	215251	217144	214541	1.41	cps
Chlorine	35-2	1213	1243	1143	1200	4.28	cps
Chromium	52-2	34331	34238	33199	33922	1.85	cps
Cobalt	59-2	18068	18055	17444	17856	2.00	cps
Copper	63-2	31251	30867	30199	30772	1.73	cps
Dysprosium	156-1	17	20	17	18	10.81	cps
Dysprosium	156-2	3	7	0	3	100.05	cps
Erbium	164-1	70	83	83	79	9.76	cps
Erbium	164-2	43	13	10	22	82.62	cps
Gadolinium	160-1	110	130	140	127	12.06	cps
Gadolinium	160-2	23	50	33	36	37.90	cps
Holmium	165-1	10656297	10573282	10821242	10683607	1.18	cps
Holmium	165-2	4316113	4265870	4321544	4301176	0.71	cps
Indium	115-1	9676140	9622596	9714005	9670914	0.47	cps
Indium	115-2	1160768	1155456	1164049	1160091	0.37	cps
Iron	54-2	24578	23974	23533	24028	2.18	cps
Iron	56-2	416570	419662	438588	424940	2.81	cps
Iron	57-2	10317	10697	9813	10276	4.32	cps
Krypton	83-1	417	420	440	426	2.97	cps
Lead	206-1	25675	25876	25422	25658	0.89	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : LLICV Instrumnet Name : P8
Client Sample ID : LLICV Dilution Factor : 1
Date & Time Acquired : 2025-04-07 12:44:45 DataFile Name : 018LLIC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	22506	22723	21705	22312	2.40	cps
Lead	208-1	102780	101293	101310	101794	0.84	cps
Lithium	6-1	3447881	3567647	3567219	3527582	1.96	cps
Magnesium	24-2	284276	284347	280408	283011	0.80	cps
Manganese	55-2	6211	6425	6458	6365	2.10	cps
Molybdenum	94-1	76710	75738	75125	75857	1.05	cps
Molybdenum	95-1	92240	92435	91633	92103	0.45	cps
Molybdenum	96-1	102024	104217	103065	103102	1.06	cps
Molybdenum	97-1	58700	57850	57465	58005	1.09	cps
Molybdenum	98-1	150246	148805	149121	149391	0.51	cps
Neodymium	150-1	40	23	17	27	45.07	cps
Neodymium	150-2	0	3	10	4	114.60	cps
Nickel	60-2	8843	8576	8789	8736	1.62	cps
Phosphorus	31-2	667	600	500	589	14.25	cps
Potassium	39-2	222769	224400	222549	223239	0.45	cps
Rhodium	103-1	9267713	9249274	9201429	9239472	0.37	cps
Rhodium	103-2	4035412	4073638	4031071	4046707	0.58	cps
Scandium	45-1	6558785	6426775	6393288	6459616	1.35	cps
Scandium	45-2	161954	163603	160333	161963	1.01	cps
Selenium	82-1	3027	3000	2810	2946	4.01	cps
Selenium	77-2	60	53	57	57	5.89	cps
Selenium	78-2	290	237	240	256	11.69	cps
Silicon	28-1	815411	804624	791029	803688	1.52	cps
Silver	107-1	44642	44659	45234	44845	0.75	cps
Silver	109-1	41937	42910	43060	42636	1.43	cps
Sodium	23-2	643135	639046	625715	635965	1.43	cps
Strontium	86-1	13533	13784	13210	13509	2.13	cps
Strontium	88-1	115520	114914	114592	115009	0.41	cps
Sulfur	34-1	686544	696942	699521	694335	0.99	cps
Terbium	159-1	11247442	11376944	11208530	11277639	0.78	cps
Terbium	159-2	4244068	4289233	4249269	4260857	0.58	cps
Thallium	203-1	28812	30048	29353	29404	2.11	cps
Thallium	205-1	69482	69364	69089	69312	0.29	cps
Tin	118-1	149394	149577	149294	149421	0.10	cps
Titanium	47-1	28221	27370	27924	27838	1.55	cps
Uranium	238-1	84898	84528	85177	84868	0.38	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : LLICV Instrumnet Name : P8
Client Sample ID : LLICV Dilution Factor : 1
Date & Time Acquired : 2025-04-07 12:44:45 DataFile Name : 018LLIC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	35280	36172	34779	35410	1.99	cps
Ytterbium	172-1	67	70	93	77	18.95	cps
Ytterbium	172-2	40	17	30	29	40.51	cps
Ytterbium	176-1	1503	1660	1710	1625	6.64	cps
Ytterbium	176-2	453	457	540	483	10.16	cps
Yttrium	89-1	17803648	17542634	17436731	17594338	1.07	cps
Yttrium	89-2	1573061	1594219	1580620	1582633	0.68	cps
Zinc	66-2	13036	13420	13183	13213	1.46	cps
Zirconium	90-1	64655	65225	63949	64610	0.99	cps
Zirconium	91-1	14087	14127	14237	14151	0.55	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : ICB01 Instrumnet Name : P8
Client Sample ID : ICB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 12:48:18 DataFile Name : 019CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	780	693	640	704	10.03	cps
Antimony	121-1	430	417	493	447	9.17	cps
Arsenic	75-2	17	20	17	18	10.81	cps
Barium	135-1	180	230	143	184	23.58	cps
Barium	137-1	337	343	313	331	4.76	cps
Beryllium	9-1	155	141	127	141	9.79	cps
Bismuth	209-1	6320434	6264712	6280133	6288426	0.46	cps
Bismuth	209-2	3000704	2978075	2911234	2963338	1.57	cps
Bromine	81-1	31542	32047	31338	31642	1.15	cps
Cadmium	108-1	33	13	13	20	57.74	cps
Cadmium	106-1	6348	6358	6685	6464	2.97	cps
Cadmium	111-1	4480	4481	4717	4560	2.99	cps
Calcium	43-1	4414	4537	4564	4505	1.78	cps
Calcium	44-1	94910	95450	95470	95277	0.33	cps
Carbon	12-1	4906625	4863601	4775688	4848638	1.38	cps
Carbon	12-2	34056	34420	33836	34104	0.87	cps
Chlorine	35-1	203830	204443	206152	204809	0.59	cps
Chlorine	35-2	1157	1200	1193	1183	1.97	cps
Chromium	52-2	15575	15912	14874	15454	3.43	cps
Cobalt	59-2	327	343	343	338	2.85	cps
Copper	63-2	4154	4071	4117	4114	1.02	cps
Dysprosium	156-1	13	13	27	18	43.33	cps
Dysprosium	156-2	10	7	3	7	50.03	cps
Erbium	164-1	87	47	93	76	33.40	cps
Erbium	164-2	7	33	23	21	63.80	cps
Gadolinium	160-1	113	177	150	147	21.68	cps
Gadolinium	160-2	23	20	27	23	14.29	cps
Holmium	165-1	10689466	10638610	10511480	10613185	0.86	cps
Holmium	165-2	4281146	4340810	4247085	4289680	1.11	cps
Indium	115-1	9753989	9433079	9581590	9589553	1.67	cps
Indium	115-2	1159565	1158034	1149255	1155618	0.48	cps
Iron	54-2	4214	4134	4141	4163	1.07	cps
Iron	56-2	62704	61358	73153	65738	9.82	cps
Iron	57-2	1563	1403	1617	1528	7.27	cps
Krypton	83-1	430	363	397	397	8.40	cps
Lead	206-1	2427	2377	2354	2386	1.57	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : ICB01 Instrumnet Name : P8
Client Sample ID : ICB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 12:48:18 DataFile Name : 019CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	1990	2044	2124	2052	3.27	cps
Lead	208-1	9401	9768	9395	9521	2.24	cps
Lithium	6-1	3486193	3540290	3488008	3504830	0.88	cps
Magnesium	24-2	1217	1137	1280	1211	5.93	cps
Manganese	55-2	1783	1880	1937	1867	4.15	cps
Molybdenum	94-1	1310	1263	1077	1217	10.15	cps
Molybdenum	95-1	1450	1320	1243	1338	7.81	cps
Molybdenum	96-1	1750	1523	1430	1568	10.50	cps
Molybdenum	97-1	953	870	823	882	7.47	cps
Molybdenum	98-1	2234	2130	2104	2156	3.19	cps
Neodymium	150-1	7	13	7	9	43.25	cps
Neodymium	150-2	0	0	0	0	0.00	cps
Nickel	60-2	4154	4151	4227	4177	1.04	cps
Phosphorus	31-2	237	223	240	233	3.78	cps
Potassium	39-2	30065	29918	30258	30080	0.57	cps
Rhodium	103-1	9258085	8985616	9052404	9098701	1.56	cps
Rhodium	103-2	4032471	4091316	3975640	4033142	1.43	cps
Scandium	45-1	6480219	6374945	6326104	6393756	1.23	cps
Scandium	45-2	161711	160862	160768	161114	0.32	cps
Selenium	82-1	13	63	-23	18	244.76	cps
Selenium	77-2	7	0	0	2	173.21	cps
Selenium	78-2	30	37	57	41	33.76	cps
Silicon	28-1	626238	616979	617132	620116	0.86	cps
Silver	107-1	557	517	490	521	6.44	cps
Silver	109-1	493	470	430	464	6.90	cps
Sodium	23-2	84311	81717	82709	82912	1.58	cps
Strontium	86-1	890	910	953	918	3.53	cps
Strontium	88-1	2637	2604	2720	2654	2.27	cps
Sulfur	34-1	686592	691655	692927	690391	0.49	cps
Terbium	159-1	11019844	11089944	11102382	11070723	0.40	cps
Terbium	159-2	4260291	4212462	4181695	4218149	0.94	cps
Thallium	203-1	717	627	590	644	10.11	cps
Thallium	205-1	1460	1453	1407	1440	2.02	cps
Tin	118-1	5221	5298	5141	5220	1.50	cps
Titanium	47-1	623	563	523	570	8.83	cps
Uranium	238-1	440	420	427	429	2.37	cps

LB Number :LB135332Operator :Jaswal

Lab Sample ID :ICB01Instrumnet Name :P8

Client Sample ID :ICB01Dilution Factor :1

Date & Time Acquired :2025-04-07 12:48:18DataFile Name :019CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	63	57	80	67	18.03	cps
Ytterbium	172-1	67	80	67	71	10.82	cps
Ytterbium	172-2	57	27	13	32	68.89	cps
Ytterbium	176-1	1443	1647	1563	1551	6.59	cps
Ytterbium	176-2	390	430	333	384	12.63	cps
Yttrium	89-1	17222986	17347786	17232411	17267728	0.40	cps
Yttrium	89-2	1579261	1581726	1568100	1576363	0.46	cps
Zinc	66-2	4764	4611	4581	4652	2.11	cps
Zirconium	90-1	1413	1490	1373	1426	4.16	cps
Zirconium	91-1	300	277	320	299	7.26	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : ICSA01 Instrumnet Name : P8
Client Sample ID : ICSA01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 12:57:28 DataFile Name : 021ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	15421425	15652681	14834078	15302728	2.76	cps
Antimony	121-1	43623	43981	43335	43646	0.74	cps
Arsenic	75-2	337	413	337	362	12.22	cps
Barium	135-1	11949	12643	11999	12197	3.17	cps
Barium	137-1	21230	21000	20966	21065	0.68	cps
Beryllium	9-1	-2851	-2998	-2911	-2920	-2.53	cps
Bismuth	209-1	5514531	5501788	5424880	5480400	0.89	cps
Bismuth	209-2	2653251	2668212	2592737	2638067	1.51	cps
Bromine	81-1	36050	35077	34970	35366	1.68	cps
Cadmium	108-1	10174	10141	10598	10304	2.47	cps
Cadmium	106-1	6325	6151	6008	6161	2.57	cps
Cadmium	111-1	10035	9226	9223	9495	4.93	cps
Calcium	43-1	12033783	12068061	11831940	11977928	1.07	cps
Calcium	44-1	195485857	195311604	193239457	194678973	0.64	cps
Carbon	12-1	78113301	79163829	79899535	79058888	1.14	cps
Carbon	12-2	591345	590981	581409	587911	0.96	cps
Chlorine	35-1	179307504	184332304	187615597	183751802	2.28	cps
Chlorine	35-2	1078671	1081227	1079116	1079671	0.13	cps
Chromium	52-2	201900	201510	199017	200809	0.78	cps
Cobalt	59-2	20378	20154	20365	20299	0.62	cps
Copper	63-2	103846	101778	100945	102190	1.46	cps
Dysprosium	156-1	127	157	147	143	10.66	cps
Dysprosium	156-2	53	43	63	53	18.75	cps
Erbium	164-1	183	203	173	187	8.18	cps
Erbium	164-2	63	87	50	67	27.84	cps
Gadolinium	160-1	237	200	190	209	11.76	cps
Gadolinium	160-2	77	77	77	77	0.00	cps
Holmium	165-1	10236485	10209872	10239901	10228752	0.16	cps
Holmium	165-2	4218842	4115197	4135664	4156568	1.32	cps
Indium	115-1	9154386	8796578	9080068	9010344	2.10	cps
Indium	115-2	1086622	1086211	1083282	1085371	0.17	cps
Iron	54-2	39123718	39441728	38719775	39095074	0.93	cps
Iron	56-2	718787803	725562336	715897963	720082700	0.69	cps
Iron	57-2	18327273	18075361	17948617	18117084	1.06	cps
Krypton	83-1	450	517	420	462	10.70	cps
Lead	206-1	105921	105209	104689	105273	0.59	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : ICSA01 Instrumnet Name : P8
Client Sample ID : ICSA01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 12:57:28 DataFile Name : 021ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	84490	83661	82269	83473	1.34	cps
Lead	208-1	398772	394447	391892	395037	0.88	cps
Lithium	6-1	3392167	3438168	3468237	3432857	1.12	cps
Magnesium	24-2	55455034	55247081	53915509	54872541	1.52	cps
Manganese	55-2	33706	33192	32277	33058	2.19	cps
Molybdenum	94-1	20993551	20721998	20823984	20846511	0.66	cps
Molybdenum	95-1	36766993	36564409	36556475	36629292	0.33	cps
Molybdenum	96-1	39186039	39191519	39366869	39248142	0.26	cps
Molybdenum	97-1	22575993	22673261	22605816	22618356	0.22	cps
Molybdenum	98-1	59579414	58751182	59390846	59240481	0.73	cps
Neodymium	150-1	160	120	153	144	14.84	cps
Neodymium	150-2	70	50	63	61	16.66	cps
Nickel	60-2	29227	30018	29440	29562	1.39	cps
Phosphorus	31-2	927704	933501	902076	921094	1.82	cps
Potassium	39-2	42271924	42201624	42275428	42249658	0.10	cps
Rhodium	103-1	8192957	8223492	8131557	8182669	0.57	cps
Rhodium	103-2	3660764	3640198	3641178	3647380	0.32	cps
Scandium	45-1	6476640	6485636	6473103	6478460	0.10	cps
Scandium	45-2	163228	164969	164831	164343	0.59	cps
Selenium	82-1	27	-3	97	40	128.28	cps
Selenium	77-2	3	0	3	2	86.60	cps
Selenium	78-2	40	40	47	42	9.12	cps
Silicon	28-1	1068614	1059840	1044527	1057660	1.15	cps
Silver	107-1	1563	1903	2394	1953	21.36	cps
Silver	109-1	1577	1870	1994	1813	11.80	cps
Sodium	23-2	121563768	119190288	119295102	120016386	1.12	cps
Strontium	86-1	405754	404556	404142	404817	0.21	cps
Strontium	88-1	3681410	3745390	3729053	3718617	0.89	cps
Sulfur	34-1	16072216	16086759	15995713	16051563	0.30	cps
Terbium	159-1	10719316	10499714	10683396	10634142	1.11	cps
Terbium	159-2	4103445	4020615	4076181	4066747	1.04	cps
Thallium	203-1	1857	2360	2644	2287	17.43	cps
Thallium	205-1	4524	5351	6335	5403	16.78	cps
Tin	118-1	9226	8553	8780	8853	3.87	cps
Titanium	47-1	11404029	11566481	11402982	11457830	0.82	cps
Uranium	238-1	1894	1947	1890	1910	1.66	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : ICSA01 Instrumnet Name : P8
Client Sample ID : ICSA01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 12:57:28 DataFile Name : 021ICSA.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	1157	1113	1130	1133	1.93	cps
Ytterbium	172-1	63	97	113	91	27.94	cps
Ytterbium	172-2	60	33	33	42	36.47	cps
Ytterbium	176-1	1260	1383	1477	1373	7.91	cps
Ytterbium	176-2	327	380	403	370	10.62	cps
Yttrium	89-1	16882648	17252641	17131771	17089020	1.10	cps
Yttrium	89-2	1553479	1586229	1574667	1571458	1.06	cps
Zinc	66-2	24652	24475	23463	24196	2.65	cps
Zirconium	90-1	2707	3054	3354	3038	10.65	cps
Zirconium	91-1	603	660	763	676	12.01	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : ICSAB01 Instrumnet Name : P8
Client Sample ID : ICSAB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:04:20 DataFile Name : 023ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	16563554	16276236	16112529	16317439	1.40	cps
Antimony	121-1	758796	763448	770405	764216	0.76	cps
Arsenic	75-2	20695	20508	20291	20498	0.99	cps
Barium	135-1	181981	185444	183931	183785	0.94	cps
Barium	137-1	321937	319233	318407	319859	0.58	cps
Beryllium	9-1	182500	182148	182568	182405	0.12	cps
Bismuth	209-1	5622398	5592358	5579361	5598039	0.39	cps
Bismuth	209-2	2656878	2645091	2615346	2639105	0.81	cps
Bromine	81-1	36601	37196	36952	36916	0.81	cps
Cadmium	108-1	26819	26896	26592	26769	0.59	cps
Cadmium	106-1	33247	33290	33547	33361	0.49	cps
Cadmium	111-1	197630	195669	196846	196715	0.50	cps
Calcium	43-1	12811833	12440611	12519686	12590710	1.55	cps
Calcium	44-1	206081570	203281237	203771937	204378248	0.73	cps
Carbon	12-1	81640409	83973122	84204577	83272703	1.70	cps
Carbon	12-2	628136	629801	615112	624349	1.29	cps
Chlorine	35-1	184897524	190804304	192999724	189567184	2.21	cps
Chlorine	35-2	1138926	1145447	1185445	1156606	2.18	cps
Chromium	52-2	420873	414359	408673	414635	1.47	cps
Cobalt	59-2	378630	382228	376807	379222	0.73	cps
Copper	63-2	377000	380787	372041	376610	1.16	cps
Dysprosium	156-1	117	173	123	138	22.48	cps
Dysprosium	156-2	40	57	57	51	18.83	cps
Erbium	164-1	177	143	187	169	13.43	cps
Erbium	164-2	93	50	50	64	38.82	cps
Gadolinium	160-1	180	263	233	226	18.71	cps
Gadolinium	160-2	133	67	93	98	34.32	cps
Holmium	165-1	10438897	10387417	10396673	10407662	0.26	cps
Holmium	165-2	4174750	4188567	4128497	4163938	0.76	cps
Indium	115-1	9016874	8940892	9064452	9007406	0.69	cps
Indium	115-2	1098797	1088309	1096300	1094469	0.50	cps
Iron	54-2	40686565	41120514	40126018	40644366	1.23	cps
Iron	56-2	752524522	755225349	741955669	749901847	0.94	cps
Iron	57-2	18912927	19159657	18786520	18953035	1.00	cps
Krypton	83-1	457	453	500	470	5.54	cps
Lead	206-1	564313	570201	568349	567621	0.53	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : ICSAB01 Instrumnet Name : P8
Client Sample ID : ICSAB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:04:20 DataFile Name : 023ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	463163	470412	463948	465841	0.85	cps
Lead	208-1	2156390	2187114	2164097	2169200	0.74	cps
Lithium	6-1	3524431	3469583	3494028	3496014	0.79	cps
Magnesium	24-2	58522411	58825881	58165354	58504549	0.57	cps
Manganese	55-2	121824	123926	120476	122075	1.42	cps
Molybdenum	94-1	23092441	22964640	22868121	22975067	0.49	cps
Molybdenum	95-1	38445467	38912164	38196560	38518064	0.94	cps
Molybdenum	96-1	41434515	41652279	41380941	41489245	0.35	cps
Molybdenum	97-1	23379995	23518836	23700598	23533143	0.68	cps
Molybdenum	98-1	61176954	61603307	62649822	61810028	1.23	cps
Neodymium	150-1	190	150	210	183	16.66	cps
Neodymium	150-2	57	43	47	49	14.20	cps
Nickel	60-2	127108	126735	126237	126693	0.34	cps
Phosphorus	31-2	987838	981125	966705	978556	1.10	cps
Potassium	39-2	44700551	45174204	45308031	45060929	0.71	cps
Rhodium	103-1	8283363	8249665	8397457	8310161	0.93	cps
Rhodium	103-2	3719364	3684533	3667730	3690542	0.71	cps
Scandium	45-1	6601549	6629169	6572188	6600969	0.43	cps
Scandium	45-2	171943	172297	173966	172735	0.63	cps
Selenium	82-1	12873	12766	12266	12635	2.57	cps
Selenium	77-2	277	323	313	304	8.07	cps
Selenium	78-2	1010	950	1037	999	4.44	cps
Silicon	28-1	2110728	2115392	2126404	2117508	0.38	cps
Silver	107-1	876264	878394	875404	876687	0.18	cps
Silver	109-1	825371	823650	819713	822912	0.35	cps
Sodium	23-2	127605091	128408221	126684045	127565786	0.68	cps
Strontium	86-1	1002189	1006304	1003475	1003989	0.21	cps
Strontium	88-1	9023506	8935012	9087804	9015440	0.85	cps
Sulfur	34-1	16628441	16445170	16603536	16559049	0.60	cps
Terbium	159-1	10804647	10863759	10812571	10826992	0.30	cps
Terbium	159-2	4107916	4121712	4080306	4103311	0.51	cps
Thallium	203-1	568700	572742	565677	569039	0.62	cps
Thallium	205-1	1363982	1362379	1363963	1363441	0.07	cps
Tin	118-1	1346414	1373680	1353720	1357938	1.04	cps
Titanium	47-1	11974000	11953633	12021674	11983102	0.29	cps
Uranium	238-1	4006952	4023629	4084679	4038420	1.01	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : ICSAB01 Instrumnet Name : P8
Client Sample ID : ICSAB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:04:20 DataFile Name : 023ICSB.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	157239	158029	156121	157130	0.61	cps
Ytterbium	172-1	90	130	110	110	18.18	cps
Ytterbium	172-2	40	50	33	41	20.41	cps
Ytterbium	176-1	7976	8253	8183	8137	1.77	cps
Ytterbium	176-2	2897	2944	2880	2907	1.13	cps
Yttrium	89-1	17389956	17298478	17347556	17345330	0.26	cps
Yttrium	89-2	1637624	1650086	1616855	1634855	1.03	cps
Zinc	66-2	61513	62192	61529	61745	0.63	cps
Zirconium	90-1	3282322	3243004	3263555	3262961	0.60	cps
Zirconium	91-1	696717	686184	689531	690810	0.78	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCV01 Instrumnet Name : P8
Client Sample ID : CCV01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:07:30 DataFile Name : 024CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	8875983	8996823	8874907	8915904	0.79	cps
Antimony	121-1	17289650	17171531	17292031	17251071	0.40	cps
Arsenic	75-2	482192	482965	486540	483899	0.48	cps
Barium	135-1	20620866	20964685	21020312	20868621	1.04	cps
Barium	137-1	35182290	35912125	36110125	35734847	1.37	cps
Beryllium	9-1	4222795	4309615	4312112	4281507	1.19	cps
Bismuth	209-1	5081618	5085390	5117893	5094967	0.39	cps
Bismuth	209-2	2488247	2498221	2451989	2479486	0.98	cps
Bromine	81-1	34837	34633	34743	34737	0.29	cps
Cadmium	108-1	342270	343800	345089	343719	0.41	cps
Cadmium	106-1	492795	499138	499785	497239	0.78	cps
Cadmium	111-1	4298068	4417376	4399468	4371637	1.47	cps
Calcium	43-1	30240121	30323972	30381604	30315232	0.23	cps
Calcium	44-1	487059393	499218273	493885526	493387730	1.24	cps
Carbon	12-1	7391438	7322671	7148174	7287428	1.72	cps
Carbon	12-2	64654	64387	64163	64401	0.38	cps
Chlorine	35-1	7895844	7288833	6743726	7309468	7.88	cps
Chlorine	35-2	34628	33773	31464	33288	4.92	cps
Chromium	52-2	5160674	5142071	5088891	5130545	0.73	cps
Cobalt	59-2	8654763	8763157	8637287	8685069	0.79	cps
Copper	63-2	68857131	70314292	69024569	69398664	1.15	cps
Dysprosium	156-1	950	940	890	927	3.47	cps
Dysprosium	156-2	220	233	293	249	15.70	cps
Erbium	164-1	780	807	840	809	3.72	cps
Erbium	164-2	277	307	353	312	12.37	cps
Gadolinium	160-1	653	610	747	670	10.42	cps
Gadolinium	160-2	237	300	293	277	12.58	cps
Holmium	165-1	9729232	9816415	9843689	9796445	0.61	cps
Holmium	165-2	4027106	4067153	4163408	4085889	1.71	cps
Indium	115-1	8102302	8240366	8191633	8178100	0.86	cps
Indium	115-2	1002579	1009980	1010890	1007816	0.45	cps
Iron	54-2	49876096	50007388	50041259	49974914	0.17	cps
Iron	56-2	917787720	916336466	926680120	920268102	0.61	cps
Iron	57-2	22803835	22907485	22846656	22852659	0.23	cps
Krypton	83-1	507	537	540	528	3.48	cps
Lead	206-1	54037638	53764343	53906739	53902906	0.25	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCV01 Instrumnet Name : P8
Client Sample ID : CCV01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:07:30 DataFile Name : 024CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	46056161	46280576	45503363	45946700	0.87	cps
Lead	208-1	211247837	213310243	210531300	211696460	0.68	cps
Lithium	6-1	3205272	3240172	3285829	3243758	1.25	cps
Magnesium	24-2	149999081	146370581	152327114	149565592	2.01	cps
Manganese	55-2	24085666	24305365	24182401	24191144	0.46	cps
Molybdenum	94-1	64860956	64751554	64943716	64852075	0.15	cps
Molybdenum	95-1	92127262	93897215	93482849	93169109	0.99	cps
Molybdenum	96-1	101503348	102329112	102265938	102032800	0.45	cps
Molybdenum	97-1	57023102	57725044	57287974	57345374	0.62	cps
Molybdenum	98-1	148629211	151284364	148674834	149529470	1.02	cps
Neodymium	150-1	1827	1623	1817	1756	6.53	cps
Neodymium	150-2	193	147	183	174	14.09	cps
Nickel	60-2	2365206	2417647	2455658	2412837	1.88	cps
Phosphorus	31-2	93948	95944	95733	95209	1.15	cps
Potassium	39-2	55890651	56264081	57273064	56475932	1.27	cps
Rhodium	103-1	7686044	7629267	7684342	7666551	0.42	cps
Rhodium	103-2	3476390	3423514	3504202	3468035	1.18	cps
Scandium	45-1	6293263	6319143	6415561	6342655	1.02	cps
Scandium	45-2	170360	170823	171311	170831	0.28	cps
Selenium	82-1	279544	279728	279371	279548	0.06	cps
Selenium	77-2	6805	6725	6798	6776	0.66	cps
Selenium	78-2	23466	23396	23253	23372	0.47	cps
Silicon	28-1	75461624	75063501	74177356	74900827	0.88	cps
Silver	107-1	21376661	21648838	21995479	21673659	1.43	cps
Silver	109-1	20021365	20583873	20450967	20352068	1.44	cps
Sodium	23-2	307085349	307795202	312439275	309106609	0.94	cps
Strontium	86-1	6108996	6075100	6157872	6113989	0.68	cps
Strontium	88-1	53021186	53436551	53488801	53315513	0.48	cps
Sulfur	34-1	2362949	2369423	2375939	2369437	0.27	cps
Terbium	159-1	10037680	10064752	10032386	10044939	0.17	cps
Terbium	159-2	3907200	3968551	4076601	3984117	2.15	cps
Thallium	203-1	13583971	13609401	13700368	13631247	0.45	cps
Thallium	205-1	31980295	31703485	32069957	31917912	0.60	cps
Tin	118-1	13888115	13930761	13974402	13931093	0.31	cps
Titanium	47-1	27983831	27554784	28464403	28001006	1.63	cps
Uranium	238-1	40119966	40727975	40771607	40539849	0.90	cps

LB Number :LB135332Operator :Jaswal

Lab Sample ID :CCV01Instrumnet Name :P8

Client Sample ID :CCV01Dilution Factor :1

Date & Time Acquired :2025-04-07 13:07:30DataFile Name :024CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	3951534	3923357	3964799	3946563	0.54	cps
Ytterbium	172-1	1030	1183	1153	1122	7.24	cps
Ytterbium	172-2	570	537	543	550	3.21	cps
Ytterbium	176-1	69787	69917	70540	70081	0.57	cps
Ytterbium	176-2	28003	27906	28387	28099	0.91	cps
Yttrium	89-1	16517327	16517854	16380685	16471955	0.48	cps
Yttrium	89-2	1586498	1589038	1572645	1582727	0.56	cps
Zinc	66-2	9520817	9578497	9552658	9550657	0.30	cps
Zirconium	90-1	32822355	33332382	33487934	33214224	1.05	cps
Zirconium	91-1	7257602	7441617	7380316	7359845	1.27	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCB01 Instrumnet Name : P8
Client Sample ID : CCB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:17:26 DataFile Name : 026CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	390	360	423	391	8.10	cps
Antimony	121-1	573	597	600	590	2.46	cps
Arsenic	75-2	13	13	10	12	15.73	cps
Barium	135-1	253	210	243	236	9.63	cps
Barium	137-1	377	317	393	362	11.13	cps
Beryllium	9-1	135	158	119	137	14.23	cps
Bismuth	209-1	6386514	6546018	6426502	6453012	1.29	cps
Bismuth	209-2	3077204	3111679	3033504	3074129	1.27	cps
Bromine	81-1	32869	34195	34235	33766	2.30	cps
Cadmium	108-1	33	27	17	26	32.81	cps
Cadmium	106-1	6982	7309	6738	7010	4.08	cps
Cadmium	111-1	4967	5177	4762	4969	4.18	cps
Calcium	43-1	4144	4084	4177	4135	1.14	cps
Calcium	44-1	91294	91938	90972	91401	0.54	cps
Carbon	12-1	5272154	5015335	5000881	5096123	2.99	cps
Carbon	12-2	36145	35402	35272	35606	1.32	cps
Chlorine	35-1	1120630	1094443	1072936	1096003	2.18	cps
Chlorine	35-2	5955	5861	5728	5848	1.95	cps
Chromium	52-2	13400	14007	13403	13603	2.57	cps
Cobalt	59-2	283	240	313	279	13.22	cps
Copper	63-2	3951	3517	3691	3719	5.87	cps
Dysprosium	156-1	20	20	10	17	34.64	cps
Dysprosium	156-2	3	3	0	2	86.60	cps
Erbium	164-1	70	87	57	71	21.14	cps
Erbium	164-2	17	17	23	19	20.36	cps
Gadolinium	160-1	130	97	87	104	21.72	cps
Gadolinium	160-2	17	37	27	27	37.50	cps
Holmium	165-1	10972689	10905909	10838286	10905628	0.62	cps
Holmium	165-2	4574383	4400695	4469538	4481539	1.95	cps
Indium	115-1	10271167	10143810	10043503	10152827	1.12	cps
Indium	115-2	1252379	1248273	1242143	1247598	0.41	cps
Iron	54-2	3961	4121	4061	4047	2.00	cps
Iron	56-2	61271	60163	58938	60124	1.94	cps
Iron	57-2	1577	1550	1463	1530	3.87	cps
Krypton	83-1	453	433	450	446	2.40	cps
Lead	206-1	2360	2474	2617	2484	5.18	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCB01 Instrumnet Name : P8
Client Sample ID : CCB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:17:26 DataFile Name : 026CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	2204	2067	2147	2139	3.21	cps
Lead	208-1	9802	9885	9895	9860	0.52	cps
Lithium	6-1	3929949	3850310	3904366	3894875	1.04	cps
Magnesium	24-2	1007	1020	1070	1032	3.23	cps
Manganese	55-2	1767	1880	1963	1870	5.28	cps
Molybdenum	94-1	1253	1090	1070	1138	8.84	cps
Molybdenum	95-1	1097	1033	1050	1060	3.10	cps
Molybdenum	96-1	1347	1163	1183	1231	8.17	cps
Molybdenum	97-1	657	747	637	680	8.62	cps
Molybdenum	98-1	1673	1617	1760	1683	4.29	cps
Neodymium	150-1	27	7	10	14	74.18	cps
Neodymium	150-2	7	3	0	3	100.05	cps
Nickel	60-2	3604	3447	3570	3540	2.33	cps
Phosphorus	31-2	223	203	217	214	4.75	cps
Potassium	39-2	39935	39541	39584	39687	0.54	cps
Rhodium	103-1	9711313	9859157	9597289	9722586	1.35	cps
Rhodium	103-2	4374196	4318555	4383665	4358805	0.81	cps
Scandium	45-1	7113212	7295215	7226879	7211769	1.27	cps
Scandium	45-2	185011	183171	184991	184391	0.57	cps
Selenium	82-1	-47	-10	-13	-23	-86.88	cps
Selenium	77-2	0	0	0	0	0.00	cps
Selenium	78-2	30	7	37	24	64.43	cps
Silicon	28-1	644551	648149	658978	650559	1.15	cps
Silver	107-1	627	523	497	549	12.51	cps
Silver	109-1	500	480	417	466	9.34	cps
Sodium	23-2	116927	114119	115257	115434	1.22	cps
Strontium	86-1	897	830	967	898	7.61	cps
Strontium	88-1	1787	1613	1663	1688	5.29	cps
Sulfur	34-1	813624	823282	822175	819694	0.64	cps
Terbium	159-1	11463581	11559121	11446609	11489771	0.53	cps
Terbium	159-2	4402338	4452960	4428598	4427965	0.57	cps
Thallium	203-1	930	947	920	932	1.45	cps
Thallium	205-1	2280	2184	2080	2181	4.59	cps
Tin	118-1	4898	4587	4744	4743	3.27	cps
Titanium	47-1	710	570	687	656	11.44	cps
Uranium	238-1	320	247	283	283	12.94	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCB01 Instrumnet Name : P8
Client Sample ID : CCB01 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:17:26 DataFile Name : 026CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	70	43	67	60	24.22	cps
Ytterbium	172-1	57	60	80	66	19.25	cps
Ytterbium	172-2	20	40	27	29	35.25	cps
Ytterbium	176-1	1560	1507	1467	1511	3.10	cps
Ytterbium	176-2	323	377	427	376	13.76	cps
Yttrium	89-1	18636146	18755634	18291796	18561192	1.30	cps
Yttrium	89-2	1760475	1744755	1747861	1751030	0.48	cps
Zinc	66-2	3997	3734	3797	3843	3.58	cps
Zirconium	90-1	1473	1410	1253	1379	8.21	cps
Zirconium	91-1	317	243	297	286	13.27	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CRI Instrumnet Name : P8
Client Sample ID : CRI Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:20:50 DataFile Name : 027LLCC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	4781	4874	4908	4854	1.35	cps
Antimony	121-1	73157	73597	73104	73286	0.37	cps
Arsenic	75-2	1037	1127	1097	1087	4.22	cps
Barium	135-1	85454	85910	85313	85559	0.36	cps
Barium	137-1	147898	149130	149105	148711	0.47	cps
Beryllium	9-1	9534	9844	9699	9692	1.60	cps
Bismuth	209-1	6544689	6417532	6525144	6495788	1.05	cps
Bismuth	209-2	3077362	3067112	3064352	3069608	0.22	cps
Bromine	81-1	34279	34720	35408	34802	1.64	cps
Cadmium	108-1	743	753	663	720	6.85	cps
Cadmium	106-1	8006	8286	8009	8100	1.99	cps
Cadmium	111-1	14827	14900	14639	14789	0.91	cps
Calcium	43-1	73386	73316	74180	73627	0.65	cps
Calcium	44-1	1253720	1271431	1257192	1260781	0.74	cps
Carbon	12-1	5763424	5589489	5614986	5655966	1.66	cps
Carbon	12-2	40843	39252	39817	39971	2.02	cps
Chlorine	35-1	946326	931034	923019	933460	1.27	cps
Chlorine	35-2	5244	5091	5114	5150	1.60	cps
Chromium	52-2	37212	37222	37202	37212	0.03	cps
Cobalt	59-2	20101	19464	19747	19770	1.62	cps
Copper	63-2	33804	33546	33660	33670	0.38	cps
Dysprosium	156-1	47	10	37	31	60.93	cps
Dysprosium	156-2	3	0	7	3	100.05	cps
Erbium	164-1	77	90	73	80	11.02	cps
Erbium	164-2	23	33	30	29	17.63	cps
Gadolinium	160-1	130	113	120	121	6.92	cps
Gadolinium	160-2	33	27	33	31	12.36	cps
Holmium	165-1	11042315	11033462	11072509	11049429	0.19	cps
Holmium	165-2	4447557	4496285	4467192	4470345	0.55	cps
Indium	115-1	10162068	10103783	10171566	10145805	0.36	cps
Indium	115-2	1247975	1241940	1237790	1242568	0.41	cps
Iron	54-2	26638	26895	26057	26530	1.62	cps
Iron	56-2	461155	458283	452668	457369	0.94	cps
Iron	57-2	11712	11381	11041	11378	2.95	cps
Krypton	83-1	470	450	403	441	7.76	cps
Lead	206-1	25462	25752	25846	25687	0.78	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CRI Instrumnet Name : P8
Client Sample ID : CRI Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:20:50 DataFile Name : 027LLCC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	21825	22623	22119	22189	1.82	cps
Lead	208-1	100670	102655	101870	101732	0.98	cps
Lithium	6-1	3895435	3925410	3888924	3903256	0.50	cps
Magnesium	24-2	333369	325625	321859	326951	1.79	cps
Manganese	55-2	7199	7379	7252	7276	1.27	cps
Molybdenum	94-1	78426	78717	78430	78524	0.21	cps
Molybdenum	95-1	95549	95183	95210	95314	0.21	cps
Molybdenum	96-1	106535	104664	105429	105543	0.89	cps
Molybdenum	97-1	59105	58613	58369	58696	0.64	cps
Molybdenum	98-1	152716	153128	154129	153324	0.47	cps
Neodymium	150-1	23	30	13	22	37.76	cps
Neodymium	150-2	0	7	3	3	100.05	cps
Nickel	60-2	9647	9196	9570	9471	2.54	cps
Phosphorus	31-2	703	683	587	658	9.49	cps
Potassium	39-2	264809	265489	265207	265169	0.13	cps
Rhodium	103-1	9881558	9558603	9864214	9768125	1.86	cps
Rhodium	103-2	4303747	4340538	4330194	4324826	0.44	cps
Scandium	45-1	7178333	7329221	7359578	7289044	1.33	cps
Scandium	45-2	186615	182721	182719	184018	1.22	cps
Selenium	82-1	3037	3221	3120	3126	2.94	cps
Selenium	77-2	117	93	87	99	15.93	cps
Selenium	78-2	287	280	300	289	3.53	cps
Silicon	28-1	823246	814779	816974	818333	0.54	cps
Silver	107-1	45495	47167	45642	46101	2.01	cps
Silver	109-1	42706	45053	43689	43816	2.69	cps
Sodium	23-2	768330	761419	754954	761567	0.88	cps
Strontium	86-1	14481	14037	14227	14248	1.56	cps
Strontium	88-1	121261	121954	121036	121417	0.39	cps
Sulfur	34-1	841163	844889	848759	844937	0.45	cps
Terbium	159-1	11687299	11394406	11477344	11519683	1.31	cps
Terbium	159-2	4372739	4405842	4448890	4409157	0.87	cps
Thallium	203-1	28769	30015	29230	29338	2.15	cps
Thallium	205-1	70195	69881	69813	69963	0.29	cps
Tin	118-1	153948	154694	158674	155772	1.63	cps
Titanium	47-1	30115	30152	29991	30086	0.28	cps
Uranium	238-1	83663	82747	83328	83246	0.56	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CRI Instrumnet Name : P8
Client Sample ID : CRI Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:20:50 DataFile Name : 027LLCC.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	39257	39524	38599	39127	1.22	cps
Ytterbium	172-1	60	60	53	58	6.67	cps
Ytterbium	172-2	43	40	37	40	8.32	cps
Ytterbium	176-1	1600	1690	1800	1697	5.90	cps
Ytterbium	176-2	407	427	387	407	4.92	cps
Yttrium	89-1	18781703	18810781	18312552	18635012	1.50	cps
Yttrium	89-2	1745879	1737682	1756041	1746534	0.53	cps
Zinc	66-2	14805	14434	14311	14516	1.77	cps
Zirconium	90-1	64177	66327	66725	65743	2.09	cps
Zirconium	91-1	14144	14731	14688	14521	2.25	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-12 Instrumnet Name : P8
Client Sample ID : MW-17B-55-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:24:11 DataFile Name : 028AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	7042	6778	7008	6943	2.07	cps
Antimony	121-1	10978	10884	10758	10873	1.02	cps
Arsenic	75-2	847	833	770	817	5.02	cps
Barium	135-1	3773645	3832481	3721119	3775749	1.48	cps
Barium	137-1	6455467	6623892	6413262	6497540	1.72	cps
Beryllium	9-1	-44933	-45990	-46130	-45684	-1.43	cps
Bismuth	209-1	6338434	6299130	6280172	6305912	0.47	cps
Bismuth	209-2	3024160	3026841	3015763	3022255	0.19	cps
Bromine	81-1	183717	189887	190928	188178	2.07	cps
Cadmium	108-1	110	183	110	134	31.49	cps
Cadmium	106-1	6822	7199	6555	6858	4.72	cps
Cadmium	111-1	4908	5144	4728	4927	4.23	cps
Calcium	43-1	3696540	3689416	3679066	3688341	0.24	cps
Calcium	44-1	60533777	59791579	59701554	60008970	0.76	cps
Carbon	12-1	8523962	9338688	9871503	9244718	7.34	cps
Carbon	12-2	78914	80277	80536	79909	1.09	cps
Chlorine	35-1	3760118	4010927	4090258	3953768	4.36	cps
Chlorine	35-2	24881	24751	25195	24943	0.92	cps
Chromium	52-2	2984	3114	3024	3040	2.19	cps
Cobalt	59-2	121803	122229	123883	122638	0.90	cps
Copper	63-2	5214	5234	5111	5187	1.28	cps
Dysprosium	156-1	87	110	77	91	18.77	cps
Dysprosium	156-2	23	3	13	13	75.02	cps
Erbium	164-1	133	127	120	127	5.27	cps
Erbium	164-2	40	57	37	44	24.11	cps
Gadolinium	160-1	137	173	113	141	21.43	cps
Gadolinium	160-2	37	63	43	48	29.04	cps
Holmium	165-1	11212146	10983635	11013223	11069668	1.12	cps
Holmium	165-2	4450679	4490005	4502011	4480898	0.60	cps
Indium	115-1	10123423	9957699	9967097	10016073	0.93	cps
Indium	115-2	1228859	1234776	1235484	1233039	0.30	cps
Iron	54-2	2374691	2360840	2390570	2375367	0.63	cps
Iron	56-2	43077016	42224768	42906508	42736097	1.06	cps
Iron	57-2	1035476	1037553	1034506	1035845	0.15	cps
Krypton	83-1	460	407	407	424	7.25	cps
Lead	206-1	6588	6532	6652	6591	0.91	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-12 Instrumnet Name : P8
Client Sample ID : MW-17B-55-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:24:11 DataFile Name : 028AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	5528	5485	5398	5470	1.21	cps
Lead	208-1	25390	25246	25176	25271	0.43	cps
Lithium	6-1	3984422	3958609	4019895	3987642	0.77	cps
Magnesium	24-2	5265372	5241310	5217325	5241336	0.46	cps
Manganese	55-2	2573128	2502776	2500975	2525626	1.63	cps
Molybdenum	94-1	232266	236601	233682	234183	0.94	cps
Molybdenum	95-1	407247	408357	409842	408482	0.32	cps
Molybdenum	96-1	434456	439152	435746	436452	0.56	cps
Molybdenum	97-1	253612	253702	253804	253706	0.04	cps
Molybdenum	98-1	661165	649444	653573	654728	0.91	cps
Neodymium	150-1	313	277	297	296	6.21	cps
Neodymium	150-2	23	13	23	20	28.87	cps
Nickel	60-2	48746	49191	47810	48583	1.45	cps
Phosphorus	31-2	3310	3324	3250	3295	1.19	cps
Potassium	39-2	3879745	3830365	3899888	3869999	0.92	cps
Rhodium	103-1	9672697	9354730	9520300	9515909	1.67	cps
Rhodium	103-2	4259763	4277458	4169308	4235510	1.37	cps
Scandium	45-1	7440755	7306878	7301544	7349726	1.07	cps
Scandium	45-2	183492	182038	187087	184206	1.41	cps
Selenium	82-1	163	243	233	213	20.43	cps
Selenium	77-2	7	0	3	3	100.05	cps
Selenium	78-2	37	60	47	48	24.50	cps
Silicon	28-1	472126686	469904033	466607606	469546109	0.59	cps
Silver	107-1	680	613	613	636	6.06	cps
Silver	109-1	523	520	497	513	2.83	cps
Sodium	23-2	9341594	9391119	9272794	9335169	0.64	cps
Strontium	86-1	3516715	3591517	3584325	3564186	1.16	cps
Strontium	88-1	30285123	30960540	31081826	30775830	1.39	cps
Sulfur	34-1	1039685	1005393	990392	1011823	2.50	cps
Terbium	159-1	11357271	11330489	11330743	11339501	0.14	cps
Terbium	159-2	4392484	4417740	4362319	4390848	0.63	cps
Thallium	203-1	7599	7639	7409	7549	1.63	cps
Thallium	205-1	18123	18126	18283	18177	0.50	cps
Tin	118-1	14828	15082	14801	14904	1.04	cps
Titanium	47-1	9406	9276	9100	9261	1.66	cps
Uranium	238-1	897	873	920	897	2.60	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-12 Instrumnet Name : P8
Client Sample ID : MW-17B-55-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:24:11 DataFile Name : 028AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	2880	2750	2704	2778	3.30	cps
Ytterbium	172-1	80	110	113	101	18.16	cps
Ytterbium	172-2	17	43	30	30	44.43	cps
Ytterbium	176-1	1663	1567	1470	1567	6.17	cps
Ytterbium	176-2	343	323	403	357	11.67	cps
Yttrium	89-1	18544356	18386350	18455131	18461945	0.43	cps
Yttrium	89-2	1741586	1733638	1757954	1744393	0.71	cps
Zinc	66-2	10584	10594	10647	10609	0.32	cps
Zirconium	90-1	1997	2107	1917	2007	4.75	cps
Zirconium	91-1	407	427	437	423	3.61	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-13 Instrumnet Name : P8
Client Sample ID : EB01-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:27:23 DataFile Name : 029AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	970	920	897	929	4.03	cps
Antimony	121-1	370	353	387	370	4.51	cps
Arsenic	75-2	13	13	13	13	0.00	cps
Barium	135-1	893	847	760	833	8.12	cps
Barium	137-1	1417	1213	1407	1346	8.52	cps
Beryllium	9-1	94	111	102	102	8.58	cps
Bismuth	209-1	6442861	6521001	6413134	6458999	0.86	cps
Bismuth	209-2	3186582	3040521	3010205	3079103	3.06	cps
Bromine	81-1	45002	43190	40953	43048	4.71	cps
Cadmium	108-1	23	43	30	32	31.61	cps
Cadmium	106-1	6885	6892	6995	6924	0.89	cps
Cadmium	111-1	4877	4847	4916	4880	0.70	cps
Calcium	43-1	4901	4637	4768	4769	2.76	cps
Calcium	44-1	107554	106903	104136	106198	1.71	cps
Carbon	12-1	8679148	9331684	9764791	9258541	5.90	cps
Carbon	12-2	73965	73583	74142	73897	0.39	cps
Chlorine	35-1	975141	947037	909105	943761	3.51	cps
Chlorine	35-2	4878	4944	4791	4871	1.58	cps
Chromium	52-2	4734	4934	4661	4776	2.96	cps
Cobalt	59-2	227	203	233	221	7.12	cps
Copper	63-2	4848	4791	5041	4893	2.68	cps
Dysprosium	156-1	40	27	23	30	29.40	cps
Dysprosium	156-2	3	3	10	6	69.34	cps
Erbium	164-1	90	77	103	90	14.82	cps
Erbium	164-2	57	17	27	33	62.44	cps
Gadolinium	160-1	113	113	150	126	16.86	cps
Gadolinium	160-2	33	33	30	32	5.97	cps
Holmium	165-1	11063289	11196480	10916177	11058648	1.27	cps
Holmium	165-2	4567678	4442219	4306914	4438937	2.94	cps
Indium	115-1	10417926	10265457	10197493	10293625	1.10	cps
Indium	115-2	1265069	1237873	1212698	1238546	2.11	cps
Iron	54-2	8913	9073	9040	9008	0.94	cps
Iron	56-2	160304	160285	158948	159846	0.49	cps
Iron	57-2	4141	3934	4027	4034	2.57	cps
Krypton	83-1	373	373	410	386	5.49	cps
Lead	206-1	3717	3947	3734	3799	3.38	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-13 Instrumnet Name : P8
Client Sample ID : EB01-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:27:23 DataFile Name : 029AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	3360	3160	3117	3213	4.04	cps
Lead	208-1	14997	15094	14880	14990	0.71	cps
Lithium	6-1	3911262	3955177	3835286	3900575	1.56	cps
Magnesium	24-2	2800	2807	2657	2755	3.08	cps
Manganese	55-2	9797	9603	9730	9710	1.01	cps
Molybdenum	94-1	863	827	893	861	3.88	cps
Molybdenum	95-1	657	750	637	681	8.88	cps
Molybdenum	96-1	807	813	817	812	0.63	cps
Molybdenum	97-1	457	370	407	411	10.58	cps
Molybdenum	98-1	1123	1057	1030	1070	4.49	cps
Neodymium	150-1	23	13	13	17	34.65	cps
Neodymium	150-2	0	0	3	1	173.21	cps
Nickel	60-2	2494	2370	2360	2408	3.08	cps
Phosphorus	31-2	323	320	330	324	1.57	cps
Potassium	39-2	41957	40985	41827	41590	1.27	cps
Rhodium	103-1	9821896	9988631	9769707	9860078	1.16	cps
Rhodium	103-2	4446885	4342988	4298951	4362942	1.74	cps
Scandium	45-1	7207512	7203708	7133956	7181725	0.58	cps
Scandium	45-2	185718	182847	177775	182114	2.21	cps
Selenium	82-1	100	77	-7	57	98.96	cps
Selenium	77-2	3	0	0	1	173.21	cps
Selenium	78-2	60	20	60	47	49.49	cps
Silicon	28-1	924515	939355	934623	932831	0.81	cps
Silver	107-1	387	327	320	344	10.66	cps
Silver	109-1	253	233	260	249	5.58	cps
Sodium	23-2	188038	187312	186657	187336	0.37	cps
Strontium	86-1	1480	1620	1500	1533	4.94	cps
Strontium	88-1	7495	7482	7169	7382	2.51	cps
Sulfur	34-1	714300	723338	717980	718540	0.63	cps
Terbium	159-1	11394569	11810002	11804544	11669705	2.04	cps
Terbium	159-2	4415915	4348523	4258941	4341126	1.81	cps
Thallium	203-1	640	550	573	588	7.95	cps
Thallium	205-1	1443	1400	1313	1386	4.78	cps
Tin	118-1	14424	14895	14651	14657	1.61	cps
Titanium	47-1	760	840	697	766	9.38	cps
Uranium	238-1	167	207	170	181	12.25	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-13 Instrumnet Name : P8
Client Sample ID : EB01-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:27:23 DataFile Name : 029AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	43	53	47	48	10.66	cps
Ytterbium	172-1	77	60	70	69	12.18	cps
Ytterbium	172-2	30	33	10	24	51.62	cps
Ytterbium	176-1	1577	1563	1623	1588	1.98	cps
Ytterbium	176-2	270	380	310	320	17.40	cps
Yttrium	89-1	19008096	19003968	18704993	18905686	0.92	cps
Yttrium	89-2	1745384	1763113	1712778	1740425	1.47	cps
Zinc	66-2	4087	3971	3627	3895	6.14	cps
Zirconium	90-1	1307	1403	1327	1346	3.79	cps
Zirconium	91-1	283	230	247	253	10.77	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-14 Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:30:44 DataFile Name : 030AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	274387	271662	273286	273112	0.50	cps
Antimony	121-1	64880	65158	65376	65138	0.38	cps
Arsenic	75-2	980	1013	960	984	2.74	cps
Barium	135-1	1066655	1078290	1084020	1076322	0.82	cps
Barium	137-1	1937279	1925308	1921215	1927934	0.43	cps
Beryllium	9-1	-96490	-95220	-95277	-95662	-0.75	cps
Bismuth	209-1	5976468	6079058	6062777	6039434	0.91	cps
Bismuth	209-2	2923869	2923002	2966603	2937825	0.85	cps
Bromine	81-1	147942	157355	163305	156201	4.96	cps
Cadmium	108-1	460	487	450	466	4.07	cps
Cadmium	106-1	6872	6882	6792	6848	0.72	cps
Cadmium	111-1	5035	4983	5019	5012	0.53	cps
Calcium	43-1	12521613	12310216	12202646	12344825	1.31	cps
Calcium	44-1	201138424	202276150	195858857	199757810	1.71	cps
Carbon	12-1	10773606	11805645	12140763	11573338	6.16	cps
Carbon	12-2	94152	93220	95091	94154	0.99	cps
Chlorine	35-1	4081766	4390455	4494155	4322126	4.96	cps
Chlorine	35-2	27757	27877	28057	27897	0.54	cps
Chromium	52-2	2497	2487	2287	2424	4.89	cps
Cobalt	59-2	780	903	853	846	7.34	cps
Copper	63-2	5304	5558	5401	5421	2.36	cps
Dysprosium	156-1	40	57	43	47	18.90	cps
Dysprosium	156-2	7	10	7	8	24.71	cps
Erbium	164-1	97	87	70	84	15.95	cps
Erbium	164-2	23	27	20	23	14.29	cps
Gadolinium	160-1	133	93	153	127	24.12	cps
Gadolinium	160-2	13	27	27	22	34.66	cps
Holmium	165-1	10602833	10895772	10793674	10764093	1.38	cps
Holmium	165-2	4422491	4469335	4488527	4460118	0.76	cps
Indium	115-1	9826609	9755493	9771884	9784662	0.38	cps
Indium	115-2	1221530	1220405	1215732	1219222	0.25	cps
Iron	54-2	19907	19844	19834	19862	0.20	cps
Iron	56-2	357553	353359	356805	355905	0.63	cps
Iron	57-2	9850	9597	9503	9650	1.86	cps
Krypton	83-1	400	420	377	399	5.44	cps
Lead	206-1	4307	4207	4304	4273	1.33	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-14 Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:30:44 DataFile Name : 030AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	3777	3584	3777	3713	3.01	cps
Lead	208-1	17155	16544	16714	16804	1.87	cps
Lithium	6-1	3921644	3830382	3881381	3877802	1.18	cps
Magnesium	24-2	239681	240530	236549	238920	0.88	cps
Manganese	55-2	50512	49780	50208	50167	0.73	cps
Molybdenum	94-1	792230	787133	789660	789674	0.32	cps
Molybdenum	95-1	1460426	1473932	1477858	1470739	0.62	cps
Molybdenum	96-1	1590527	1558930	1573282	1574246	1.00	cps
Molybdenum	97-1	865839	869267	853819	862975	0.94	cps
Molybdenum	98-1	2400587	2342446	2379723	2374252	1.24	cps
Neodymium	150-1	93	133	123	117	17.85	cps
Neodymium	150-2	7	13	10	10	33.30	cps
Nickel	60-2	37001	36791	36978	36923	0.31	cps
Phosphorus	31-2	353	347	397	366	7.43	cps
Potassium	39-2	11580172	11644435	11527766	11584125	0.50	cps
Rhodium	103-1	9268825	9241366	9312359	9274183	0.39	cps
Rhodium	103-2	4114717	4161974	4119373	4132021	0.63	cps
Scandium	45-1	7129437	7040120	7103402	7090986	0.65	cps
Scandium	45-2	180235	183023	183992	182417	1.07	cps
Selenium	82-1	543	487	540	523	6.08	cps
Selenium	77-2	17	7	7	10	57.72	cps
Selenium	78-2	60	70	117	82	36.79	cps
Silicon	28-1	101445338	101100688	100651819	101065948	0.39	cps
Silver	107-1	297	283	277	286	3.57	cps
Silver	109-1	230	187	270	229	18.21	cps
Sodium	23-2	27412289	27081300	26822213	27105267	1.09	cps
Strontium	86-1	7236095	7316127	7328484	7293569	0.69	cps
Strontium	88-1	64405646	63568471	63588127	63854081	0.75	cps
Sulfur	34-1	1725411	1710694	1717851	1717986	0.43	cps
Terbium	159-1	11357597	11193607	11242909	11264704	0.75	cps
Terbium	159-2	4365950	4362921	4352848	4360573	0.16	cps
Thallium	203-1	1263	1277	1317	1286	2.16	cps
Thallium	205-1	2997	3070	3017	3028	1.25	cps
Tin	118-1	16407	16634	16857	16632	1.35	cps
Titanium	47-1	2544	2534	2420	2499	2.74	cps
Uranium	238-1	420	450	413	428	4.57	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-14 Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:30:44 DataFile Name : 030AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	31164	31024	31405	31197	0.62	cps
Ytterbium	172-1	100	60	43	68	42.97	cps
Ytterbium	172-2	20	20	40	27	43.30	cps
Ytterbium	176-1	1590	1523	1567	1560	2.17	cps
Ytterbium	176-2	357	367	357	360	1.60	cps
Yttrium	89-1	18503041	18632085	18166601	18433909	1.30	cps
Yttrium	89-2	1740260	1733932	1754007	1742733	0.59	cps
Zinc	66-2	5601	5481	5531	5538	1.09	cps
Zirconium	90-1	1790	1910	1810	1837	3.50	cps
Zirconium	91-1	367	320	377	354	8.53	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-14DUP Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225DUP Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:33:59 DataFile Name : 031AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	277212	275911	273450	275524	0.69	cps
Antimony	121-1	65965	66336	66427	66243	0.37	cps
Arsenic	75-2	843	1053	930	942	11.20	cps
Barium	135-1	1094944	1084336	1088680	1089320	0.49	cps
Barium	137-1	2042658	2019473	1994355	2018828	1.20	cps
Beryllium	9-1	-95665	-95559	-96439	-95888	-0.50	cps
Bismuth	209-1	6148304	6063500	6084178	6098661	0.73	cps
Bismuth	209-2	3012373	3030586	3037978	3026979	0.44	cps
Bromine	81-1	155886	160184	170446	162172	4.61	cps
Cadmium	108-1	480	427	480	462	6.66	cps
Cadmium	106-1	6989	6982	7162	7044	1.45	cps
Cadmium	111-1	5089	5142	5194	5142	1.02	cps
Calcium	43-1	12205174	12163898	12329214	12232762	0.70	cps
Calcium	44-1	200440484	199191090	198603857	199411810	0.47	cps
Carbon	12-1	10061437	10545348	10694992	10433926	3.17	cps
Carbon	12-2	80448	80797	80861	80702	0.28	cps
Chlorine	35-1	4274995	4663015	4818382	4585464	6.10	cps
Chlorine	35-2	28759	29356	29681	29265	1.60	cps
Chromium	52-2	2444	2457	2540	2480	2.11	cps
Cobalt	59-2	897	893	893	894	0.21	cps
Copper	63-2	5935	5885	5671	5830	2.40	cps
Dysprosium	156-1	27	37	33	32	15.80	cps
Dysprosium	156-2	3	7	13	8	65.47	cps
Erbium	164-1	97	50	87	78	31.59	cps
Erbium	164-2	30	23	37	30	22.23	cps
Gadolinium	160-1	120	120	160	133	17.32	cps
Gadolinium	160-2	50	33	47	43	20.36	cps
Holmium	165-1	11167021	10944846	11034344	11048737	1.01	cps
Holmium	165-2	4553953	4496470	4521166	4523863	0.64	cps
Indium	115-1	9962717	9879912	9720326	9854318	1.25	cps
Indium	115-2	1234509	1232168	1231973	1232883	0.11	cps
Iron	54-2	20672	20201	20385	20419	1.16	cps
Iron	56-2	367190	368355	361005	365517	1.08	cps
Iron	57-2	9870	9740	9964	9858	1.14	cps
Krypton	83-1	403	450	447	433	6.01	cps
Lead	206-1	5548	5501	5521	5523	0.42	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-14DUP Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225DUP Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:33:59 DataFile Name : 031AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	4614	4741	4527	4628	2.32	cps
Lead	208-1	21224	21344	21534	21367	0.73	cps
Lithium	6-1	3883979	4006979	3934571	3941843	1.57	cps
Magnesium	24-2	244858	239348	241140	241782	1.16	cps
Manganese	55-2	36764	37118	37850	37244	1.49	cps
Molybdenum	94-1	793467	786824	800314	793535	0.85	cps
Molybdenum	95-1	1463182	1439767	1459338	1454096	0.86	cps
Molybdenum	96-1	1561026	1561770	1639792	1587529	2.85	cps
Molybdenum	97-1	854650	867627	871207	864495	1.01	cps
Molybdenum	98-1	2320855	2392588	2360919	2358121	1.52	cps
Neodymium	150-1	63	113	110	96	29.26	cps
Neodymium	150-2	3	0	3	2	86.60	cps
Nickel	60-2	37620	36844	37690	37385	1.25	cps
Phosphorus	31-2	377	347	400	374	7.14	cps
Potassium	39-2	11619536	11574812	11545403	11579917	0.32	cps
Rhodium	103-1	9300872	9320441	9257720	9293011	0.35	cps
Rhodium	103-2	4178410	4276915	4191992	4215772	1.27	cps
Scandium	45-1	7099136	7132763	7284085	7171995	1.37	cps
Scandium	45-2	185116	184529	184130	184592	0.27	cps
Selenium	82-1	530	527	487	514	4.69	cps
Selenium	77-2	3	20	0	8	137.80	cps
Selenium	78-2	53	53	50	52	3.68	cps
Silicon	28-1	100175559	100597419	100373005	100381994	0.21	cps
Silver	107-1	207	327	253	262	23.07	cps
Silver	109-1	177	190	197	188	5.42	cps
Sodium	23-2	27627670	27367772	27356475	27450639	0.56	cps
Strontium	86-1	7331273	7433394	7359938	7374869	0.71	cps
Strontium	88-1	63852304	63777587	64374346	64001412	0.51	cps
Sulfur	34-1	1686513	1704044	1690971	1693842	0.54	cps
Terbium	159-1	11248331	11389764	11350199	11329431	0.64	cps
Terbium	159-2	4462869	4401937	4483544	4449450	0.95	cps
Thallium	203-1	1287	1330	1210	1276	4.76	cps
Thallium	205-1	2817	3037	3084	2979	4.78	cps
Tin	118-1	16937	16977	17445	17120	1.65	cps
Titanium	47-1	2357	2467	2554	2459	4.01	cps
Uranium	238-1	377	437	367	393	9.62	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-14DUP Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225DUP Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:33:59 DataFile Name : 031AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	31264	32166	31298	31576	1.62	cps
Ytterbium	172-1	50	50	67	56	17.32	cps
Ytterbium	172-2	17	17	20	18	10.81	cps
Ytterbium	176-1	1467	1610	1470	1516	5.40	cps
Ytterbium	176-2	370	393	410	391	5.14	cps
Yttrium	89-1	18669172	18702741	18608598	18660170	0.26	cps
Yttrium	89-2	1785616	1764824	1737423	1762621	1.37	cps
Zinc	66-2	4834	4674	4587	4699	2.66	cps
Zirconium	90-1	1707	1683	1673	1688	1.01	cps
Zirconium	91-1	420	373	300	364	16.60	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-14LX5 Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225L Dilution Factor : 5
Date & Time Acquired : 2025-04-07 13:37:11 DataFile Name : 032AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	55000	54746	54612	54786	0.36	cps
Antimony	121-1	13517	12973	13140	13210	2.11	cps
Arsenic	75-2	213	237	197	216	9.32	cps
Barium	135-1	214272	217423	214753	215483	0.79	cps
Barium	137-1	367841	376927	378065	374278	1.50	cps
Beryllium	9-1	-19214	-19001	-19072	-19095	-0.57	cps
Bismuth	209-1	6124441	6074719	6259064	6152741	1.55	cps
Bismuth	209-2	2978391	3011585	3028635	3006203	0.85	cps
Bromine	81-1	68902	70040	69562	69501	0.82	cps
Cadmium	108-1	107	147	87	113	26.96	cps
Cadmium	106-1	6558	6902	6592	6684	2.83	cps
Cadmium	111-1	4659	4842	4680	4727	2.11	cps
Calcium	43-1	2410936	2466111	2484214	2453754	1.56	cps
Calcium	44-1	39196200	39302858	40091090	39530049	1.24	cps
Carbon	12-1	7677165	7647778	7657078	7660674	0.20	cps
Carbon	12-2	53865	53356	53437	53553	0.51	cps
Chlorine	35-1	1676582	1689031	1711662	1692425	1.05	cps
Chlorine	35-2	9250	9527	9280	9352	1.62	cps
Chromium	52-2	3150	3127	3170	3149	0.69	cps
Cobalt	59-2	280	280	293	284	2.71	cps
Copper	63-2	4444	4537	4617	4533	1.91	cps
Dysprosium	156-1	17	13	17	16	12.40	cps
Dysprosium	156-2	3	3	3	3	0.00	cps
Erbium	164-1	67	110	73	83	28.00	cps
Erbium	164-2	37	30	27	31	16.37	cps
Gadolinium	160-1	110	97	83	97	13.79	cps
Gadolinium	160-2	17	17	27	20	28.86	cps
Holmium	165-1	10739605	10954213	10736648	10810155	1.15	cps
Holmium	165-2	4491723	4399623	4458751	4450032	1.05	cps
Indium	115-1	9848105	9759113	9649283	9752167	1.02	cps
Indium	115-2	1212955	1198533	1215366	1208951	0.75	cps
Iron	54-2	5381	5394	5281	5352	1.16	cps
Iron	56-2	88928	89394	89465	89263	0.33	cps
Iron	57-2	2534	2460	2460	2485	1.70	cps
Krypton	83-1	417	463	427	436	5.64	cps
Lead	206-1	2210	2377	2470	2352	5.60	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-14LX5 Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225L Dilution Factor : 5
Date & Time Acquired : 2025-04-07 13:37:11 DataFile Name : 032AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	2074	2167	2087	2109	2.39	cps
Lead	208-1	9305	9762	9365	9477	2.62	cps
Lithium	6-1	3814033	3899285	3831853	3848390	1.17	cps
Magnesium	24-2	47975	48270	48082	48109	0.31	cps
Manganese	55-2	14164	14000	14327	14164	1.15	cps
Molybdenum	94-1	158787	159108	158171	158689	0.30	cps
Molybdenum	95-1	273444	280430	273330	275735	1.47	cps
Molybdenum	96-1	293701	293434	296069	294401	0.49	cps
Molybdenum	97-1	169869	172153	171579	171200	0.69	cps
Molybdenum	98-1	438110	443479	446566	442718	0.97	cps
Neodymium	150-1	20	23	30	24	20.83	cps
Neodymium	150-2	3	3	0	2	86.60	cps
Nickel	60-2	8236	8686	8272	8398	2.98	cps
Phosphorus	31-2	210	220	297	242	19.58	cps
Potassium	39-2	2365877	2343313	2339264	2349485	0.61	cps
Rhodium	103-1	9390270	9293660	9154193	9279374	1.28	cps
Rhodium	103-2	4264716	4128754	4213520	4202330	1.63	cps
Scandium	45-1	6881668	6859732	6936502	6892634	0.57	cps
Scandium	45-2	179044	177359	177347	177916	0.55	cps
Selenium	82-1	53	20	57	43	46.79	cps
Selenium	77-2	7	0	0	2	173.21	cps
Selenium	78-2	30	43	53	42	27.72	cps
Silicon	28-1	20031157	19892203	20297791	20073717	1.03	cps
Silver	107-1	250	257	243	250	2.67	cps
Silver	109-1	177	150	110	146	23.05	cps
Sodium	23-2	5531226	5464925	5355713	5450621	1.63	cps
Strontium	86-1	1475235	1449586	1505314	1476712	1.89	cps
Strontium	88-1	12871525	12724040	12768563	12788043	0.59	cps
Sulfur	34-1	1037567	1048333	1058832	1048244	1.01	cps
Terbium	159-1	11215493	11132809	11272139	11206813	0.63	cps
Terbium	159-2	4336753	4346862	4403469	4362361	0.82	cps
Thallium	203-1	613	630	690	644	6.26	cps
Thallium	205-1	1657	1647	1540	1615	4.01	cps
Tin	118-1	7996	8216	8096	8102	1.36	cps
Titanium	47-1	887	827	847	853	3.58	cps
Uranium	238-1	197	263	187	216	19.34	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-14LX5 Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225L Dilution Factor : 5
Date & Time Acquired : 2025-04-07 13:37:11 DataFile Name : 032AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	6545	6105	6205	6285	3.67	cps
Ytterbium	172-1	53	70	73	66	16.35	cps
Ytterbium	172-2	30	27	20	26	19.92	cps
Ytterbium	176-1	1580	1540	1537	1552	1.55	cps
Ytterbium	176-2	387	343	323	351	9.22	cps
Yttrium	89-1	18190318	17966030	18232323	18129557	0.79	cps
Yttrium	89-2	1714570	1660014	1716638	1697074	1.89	cps
Zinc	66-2	3590	3430	3527	3516	2.29	cps
Zirconium	90-1	3107	3400	3370	3293	4.90	cps
Zirconium	91-1	663	633	737	678	7.84	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-15 Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225MS Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:40:28 DataFile Name : 033AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1986852	2020694	2017224	2008257	0.93	cps
Antimony	121-1	18497816	19063888	18760443	18774049	1.51	cps
Arsenic	75-2	1000	1107	997	1034	6.05	cps
Barium	135-1	20815964	21099764	20972376	20962701	0.68	cps
Barium	137-1	35625454	36414434	36132896	36057595	1.11	cps
Beryllium	9-1	4586108	4490353	4503032	4526497	1.15	cps
Bismuth	209-1	5969882	5891625	5850093	5903867	1.03	cps
Bismuth	209-2	2781691	2834773	2821074	2812513	0.98	cps
Bromine	81-1	152726	159277	163788	158597	3.51	cps
Cadmium	108-1	350317	351695	350178	350730	0.24	cps
Cadmium	106-1	519374	533321	524209	525635	1.35	cps
Cadmium	111-1	4765332	4791571	4777921	4778275	0.27	cps
Calcium	43-1	17496871	18034736	17873598	17801735	1.55	cps
Calcium	44-1	286618522	288670936	289794436	288361298	0.56	cps
Carbon	12-1	8889103	9418416	9942476	9416665	5.59	cps
Carbon	12-2	77057	79859	80274	79063	2.21	cps
Chlorine	35-1	150782008	160327401	164364128	158491179	4.40	cps
Chlorine	35-2	999685	1014048	1000771	1004835	0.80	cps
Chromium	52-2	5203566	5261221	5243661	5236149	0.56	cps
Cobalt	59-2	9463652	9408282	9344950	9405628	0.63	cps
Copper	63-2	70417587	70135764	70232969	70262107	0.20	cps
Dysprosium	156-1	647	693	623	654	5.45	cps
Dysprosium	156-2	177	140	133	150	15.55	cps
Erbium	164-1	347	290	320	319	8.89	cps
Erbium	164-2	117	100	90	102	13.18	cps
Gadolinium	160-1	547	513	403	488	15.38	cps
Gadolinium	160-2	153	147	143	148	3.45	cps
Holmium	165-1	10668877	10709925	10749357	10709387	0.38	cps
Holmium	165-2	4316113	4376645	4397056	4363271	0.96	cps
Indium	115-1	9284280	9388060	9394536	9355625	0.66	cps
Indium	115-2	1137037	1142489	1127700	1135742	0.66	cps
Iron	54-2	9901211	9804430	9945330	9883657	0.73	cps
Iron	56-2	176572517	177537757	176288444	176799573	0.37	cps
Iron	57-2	4417470	4466664	4479168	4454434	0.73	cps
Krypton	83-1	533	647	473	551	15.97	cps
Lead	206-1	58222699	58837867	58772827	58611131	0.58	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-15 Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225MS Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:40:28 DataFile Name : 033AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	50484584	50542379	50390206	50472390	0.15	cps
Lead	208-1	230901348	231827468	230253955	230994257	0.34	cps
Lithium	6-1	3981229	3942469	3903062	3942253	0.99	cps
Magnesium	24-2	32740122	32560335	32897604	32732687	0.52	cps
Manganese	55-2	23304150	23114864	23236735	23218583	0.41	cps
Molybdenum	94-1	32743333	33103006	32716381	32854240	0.66	cps
Molybdenum	95-1	36617904	36541818	36404420	36521381	0.30	cps
Molybdenum	96-1	41452862	41333324	41352419	41379535	0.16	cps
Molybdenum	97-1	22483536	22440549	22621418	22515168	0.42	cps
Molybdenum	98-1	58667024	59249506	59352266	59089599	0.63	cps
Neodymium	150-1	1300	1333	1377	1337	2.88	cps
Neodymium	150-2	47	53	77	59	26.75	cps
Nickel	60-2	2600367	2648309	2622668	2623781	0.91	cps
Phosphorus	31-2	333	417	437	396	13.86	cps
Potassium	39-2	21980718	21956714	21546608	21828013	1.12	cps
Rhodium	103-1	8930403	8880525	8874320	8895083	0.35	cps
Rhodium	103-2	4032926	4032769	4020919	4028871	0.17	cps
Scandium	45-1	7090869	7060498	6999110	7050159	0.66	cps
Scandium	45-2	189685	192168	189810	190554	0.73	cps
Selenium	82-1	297828	297516	300869	298738	0.62	cps
Selenium	77-2	7382	7515	7282	7393	1.58	cps
Selenium	78-2	24625	24732	25179	24845	1.18	cps
Silicon	28-1	90216489	92949885	92804519	91990298	1.67	cps
Silver	107-1	3776409	3846085	3784086	3802194	1.00	cps
Silver	109-1	3571615	3543465	3544484	3553188	0.45	cps
Sodium	23-2	91667815	90524939	92826449	91673068	1.26	cps
Strontium	86-1	14250228	14492401	14465347	14402659	0.92	cps
Strontium	88-1	124257271	124197941	125105481	124520231	0.41	cps
Sulfur	34-1	1559982	1585094	1571028	1572034	0.80	cps
Terbium	159-1	11003307	11209817	10933642	11048922	1.30	cps
Terbium	159-2	4247627	4315712	4260747	4274695	0.85	cps
Thallium	203-1	14041933	14300056	14329727	14223906	1.11	cps
Thallium	205-1	33010030	33634011	33826893	33490311	1.27	cps
Tin	118-1	13362783	13708354	13710786	13593974	1.47	cps
Titanium	47-1	11998	12265	12322	12195	1.42	cps
Uranium	238-1	42888870	42834660	42536666	42753399	0.44	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-15 Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225MS Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:40:28 DataFile Name : 033AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	4220646	4302980	4259639	4261088	0.97	cps
Ytterbium	172-1	640	810	747	732	11.73	cps
Ytterbium	172-2	310	310	287	302	4.46	cps
Ytterbium	176-1	71757	70447	72873	71692	1.69	cps
Ytterbium	176-2	27930	27602	27632	27721	0.65	cps
Yttrium	89-1	18063561	18165104	18220071	18149578	0.44	cps
Yttrium	89-2	1728317	1748974	1737962	1738417	0.59	cps
Zinc	66-2	8253871	8314999	8342045	8303638	0.54	cps
Zirconium	90-1	33762317	33911545	34214304	33962722	0.68	cps
Zirconium	91-1	7434508	7432068	7540193	7468923	0.83	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-16 Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225MSD Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:43:14 DataFile Name : 034AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1989637	2007445	2011669	2002917	0.58	cps
Antimony	121-1	18470058	19088162	18712765	18756995	1.66	cps
Arsenic	75-2	1007	1023	960	997	3.29	cps
Barium	135-1	20895523	21312646	21040660	21082943	1.00	cps
Barium	137-1	36005290	35639415	35395001	35679902	0.86	cps
Beryllium	9-1	4551619	4661662	4653453	4622245	1.33	cps
Bismuth	209-1	5898270	5759465	5776566	5811434	1.30	cps
Bismuth	209-2	2834241	2833847	2830141	2832743	0.08	cps
Bromine	81-1	150862	158359	163255	157492	3.96	cps
Cadmium	108-1	354396	353151	348564	352037	0.87	cps
Cadmium	106-1	530679	525928	529324	528644	0.46	cps
Cadmium	111-1	4759757	4758309	4731531	4749866	0.33	cps
Calcium	43-1	18048356	17985917	18081237	18038503	0.27	cps
Calcium	44-1	289464049	291659929	296788676	292637551	1.28	cps
Carbon	12-1	9489307	10099190	10312531	9967010	4.29	cps
Carbon	12-2	80988	81012	81163	81054	0.12	cps
Chlorine	35-1	161743341	169194224	172224431	167720665	3.22	cps
Chlorine	35-2	1015791	1014511	1007654	1012652	0.43	cps
Chromium	52-2	5352709	5293950	5265107	5303922	0.84	cps
Cobalt	59-2	9531162	9358198	9311368	9400243	1.23	cps
Copper	63-2	72022879	69200334	70129032	70450748	2.04	cps
Dysprosium	156-1	583	583	670	612	8.17	cps
Dysprosium	156-2	147	140	147	144	2.67	cps
Erbium	164-1	277	337	323	312	10.09	cps
Erbium	164-2	120	163	97	127	26.71	cps
Gadolinium	160-1	393	393	367	384	4.00	cps
Gadolinium	160-2	187	187	160	178	8.66	cps
Holmium	165-1	10775290	10783886	10827726	10795634	0.26	cps
Holmium	165-2	4423987	4370087	4338593	4377556	0.99	cps
Indium	115-1	9480323	9283614	9244129	9336022	1.36	cps
Indium	115-2	1130028	1122308	1128147	1126827	0.36	cps
Iron	54-2	10149288	9902795	9797964	9950016	1.81	cps
Iron	56-2	178175637	178913984	177528124	178205915	0.39	cps
Iron	57-2	4511369	4557281	4523648	4530766	0.52	cps
Krypton	83-1	570	533	503	536	6.23	cps
Lead	206-1	58801104	58789669	58414269	58668347	0.38	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-16 Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225MSD Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:43:14 DataFile Name : 034AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	50754049	50955366	49756843	50488753	1.27	cps
Lead	208-1	231551892	231833547	229416457	230933965	0.57	cps
Lithium	6-1	3948437	3893713	3989836	3943995	1.22	cps
Magnesium	24-2	33215085	32829805	33367975	33137621	0.84	cps
Manganese	55-2	23779991	23312049	23219183	23437074	1.28	cps
Molybdenum	94-1	33017978	33387082	33228999	33211353	0.56	cps
Molybdenum	95-1	37023285	37171146	37358433	37184288	0.45	cps
Molybdenum	96-1	41857488	42249274	42396663	42167808	0.66	cps
Molybdenum	97-1	22908883	22868788	23085769	22954480	0.50	cps
Molybdenum	98-1	59374261	58864482	60701666	59646803	1.59	cps
Neodymium	150-1	1353	1340	1373	1356	1.24	cps
Neodymium	150-2	63	47	90	67	32.79	cps
Nickel	60-2	2655385	2675784	2635004	2655391	0.77	cps
Phosphorus	31-2	373	417	397	396	5.48	cps
Potassium	39-2	22450621	21923169	21925186	22099659	1.38	cps
Rhodium	103-1	8881150	8752041	8936381	8856524	1.07	cps
Rhodium	103-2	4057080	3942804	4067302	4022395	1.72	cps
Scandium	45-1	7264745	7274640	7201393	7246926	0.55	cps
Scandium	45-2	193129	190079	190979	191396	0.82	cps
Selenium	82-1	305481	302849	301133	303154	0.72	cps
Selenium	77-2	7559	7435	7619	7538	1.24	cps
Selenium	78-2	25136	25206	24765	25036	0.95	cps
Silicon	28-1	95087179	94515322	94212392	94604964	0.47	cps
Silver	107-1	3725652	3810900	3756651	3764401	1.15	cps
Silver	109-1	3563221	3570487	3509669	3547792	0.94	cps
Sodium	23-2	93675885	94928772	93225732	93943463	0.94	cps
Strontium	86-1	14493414	14372327	14479215	14448319	0.46	cps
Strontium	88-1	126518265	126126105	125556728	126067033	0.38	cps
Sulfur	34-1	1555431	1543579	1566198	1555069	0.73	cps
Terbium	159-1	11092301	10979644	11200752	11090899	1.00	cps
Terbium	159-2	4273521	4267609	4309946	4283692	0.54	cps
Thallium	203-1	14368272	14443269	14527297	14446280	0.55	cps
Thallium	205-1	33498125	33753593	34265328	33839015	1.15	cps
Tin	118-1	13662798	14045941	13563698	13757479	1.85	cps
Titanium	47-1	12812	13476	12836	13042	2.89	cps
Uranium	238-1	42922849	42276266	42087228	42428781	1.03	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-16 Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225MSD Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:43:14 DataFile Name : 034AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	4286510	4264981	4257992	4269828	0.35	cps
Ytterbium	172-1	667	710	680	686	3.24	cps
Ytterbium	172-2	283	347	303	311	10.41	cps
Ytterbium	176-1	71764	70390	70765	70973	1.00	cps
Ytterbium	176-2	27485	28411	27803	27900	1.69	cps
Yttrium	89-1	18378274	17945569	18094349	18139397	1.21	cps
Yttrium	89-2	1727137	1725683	1749938	1734253	0.78	cps
Zinc	66-2	8307858	8281451	8332869	8307393	0.31	cps
Zirconium	90-1	34023359	34425291	34507094	34318581	0.75	cps
Zirconium	91-1	7540483	7639188	7588051	7589241	0.65	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCV02 Instrumnet Name : P8
Client Sample ID : CCV02 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:58:04 DataFile Name : 036CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	9020846	9198407	8961919	9060391	1.36	cps
Antimony	121-1	17042181	16875762	16748580	16888841	0.87	cps
Arsenic	75-2	469935	464556	468916	467803	0.61	cps
Barium	135-1	20483958	20190692	20413523	20362724	0.75	cps
Barium	137-1	34759026	34370095	35114438	34747853	1.07	cps
Beryllium	9-1	4224690	4249223	4221433	4231782	0.36	cps
Bismuth	209-1	5108551	5093228	5106518	5102765	0.16	cps
Bismuth	209-2	2470597	2525115	2619111	2538274	2.96	cps
Bromine	81-1	33420	34282	34005	33902	1.30	cps
Cadmium	108-1	333026	335404	331480	333303	0.59	cps
Cadmium	106-1	479720	478663	476165	478183	0.38	cps
Cadmium	111-1	4297110	4187046	4308385	4264180	1.57	cps
Calcium	43-1	30036798	29552334	29764583	29784572	0.82	cps
Calcium	44-1	491848406	491766913	490183339	491266219	0.19	cps
Carbon	12-1	6856988	6920858	7137635	6971827	2.11	cps
Carbon	12-2	63419	64644	64708	64257	1.13	cps
Chlorine	35-1	856126	847862	840565	848184	0.92	cps
Chlorine	35-2	5161	4791	4811	4921	4.23	cps
Chromium	52-2	5100687	5112296	5053334	5088772	0.61	cps
Cobalt	59-2	8496765	8520635	8567513	8528304	0.42	cps
Copper	63-2	74365156	73017677	73854872	73745902	0.92	cps
Dysprosium	156-1	910	913	817	880	6.24	cps
Dysprosium	156-2	257	263	257	259	1.49	cps
Erbium	164-1	867	770	883	840	7.29	cps
Erbium	164-2	300	297	310	302	2.30	cps
Gadolinium	160-1	730	710	630	690	7.67	cps
Gadolinium	160-2	293	243	320	286	13.63	cps
Holmium	165-1	9557233	9532751	9556682	9548889	0.15	cps
Holmium	165-2	4025111	4118670	4282661	4142147	3.15	cps
Indium	115-1	8225714	8090538	8053026	8123093	1.12	cps
Indium	115-2	1006912	1037015	1084440	1042789	3.75	cps
Iron	54-2	49378606	49700293	49311903	49463600	0.42	cps
Iron	56-2	900747960	912673400	925657400	913026253	1.36	cps
Iron	57-2	22515231	22721681	23051530	22762814	1.19	cps
Krypton	83-1	583	507	480	523	10.25	cps
Lead	206-1	53057033	52484846	52478666	52673515	0.63	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCV02 Instrumnet Name : P8
Client Sample ID : CCV02 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:58:04 DataFile Name : 036CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	44441889	44598241	44454456	44498195	0.20	cps
Lead	208-1	207091100	204284509	206694517	206023375	0.74	cps
Lithium	6-1	3322346	3450792	3337464	3370201	2.08	cps
Magnesium	24-2	149708851	150533441	150515984	150252759	0.31	cps
Manganese	55-2	23852082	24131387	24144580	24042683	0.69	cps
Molybdenum	94-1	63726987	62252157	63058677	63012607	1.17	cps
Molybdenum	95-1	91534382	90280412	92058172	91290989	1.00	cps
Molybdenum	96-1	100293399	101136022	100425279	100618233	0.45	cps
Molybdenum	97-1	56914737	57000757	56245414	56720303	0.73	cps
Molybdenum	98-1	146651141	145288421	147440478	146460013	0.74	cps
Neodymium	150-1	1630	1697	1697	1675	2.30	cps
Neodymium	150-2	157	147	110	138	17.83	cps
Nickel	60-2	2361642	2334410	2438910	2378321	2.28	cps
Phosphorus	31-2	95851	96531	95558	95980	0.52	cps
Potassium	39-2	57622322	57465682	57184927	57424311	0.39	cps
Rhodium	103-1	7693414	7710619	7465956	7623330	1.79	cps
Rhodium	103-2	3443257	3546978	3569347	3519861	1.91	cps
Scandium	45-1	6167189	6226514	6286442	6226715	0.96	cps
Scandium	45-2	172272	175001	183438	176904	3.29	cps
Selenium	82-1	265059	263310	264185	264185	0.33	cps
Selenium	77-2	6798	6852	6872	6841	0.55	cps
Selenium	78-2	23296	23052	22802	23050	1.07	cps
Silicon	28-1	82862374	82416769	81629000	82302714	0.76	cps
Silver	107-1	21099127	20968531	21196347	21088002	0.54	cps
Silver	109-1	20063664	20021146	19938405	20007738	0.32	cps
Sodium	23-2	320872815	318618689	321597869	320363124	0.48	cps
Strontium	86-1	5974241	6027120	6006759	6002707	0.44	cps
Strontium	88-1	52229848	52660693	52529091	52473210	0.42	cps
Sulfur	34-1	2345201	2323223	2307523	2325316	0.81	cps
Terbium	159-1	9867163	10143955	9985658	9998925	1.39	cps
Terbium	159-2	3913094	4021235	4145015	4026448	2.88	cps
Thallium	203-1	13336051	13455437	13096027	13295839	1.38	cps
Thallium	205-1	31792974	31847792	31598473	31746413	0.41	cps
Tin	118-1	13716128	13714158	13410824	13613703	1.29	cps
Titanium	47-1	26955440	27119610	26999428	27024826	0.31	cps
Uranium	238-1	39398960	39209904	39376145	39328336	0.26	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCV02 Instrumnet Name : P8
Client Sample ID : CCV02 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 13:58:04 DataFile Name : 036CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	3959443	3980750	3919084	3953092	0.79	cps
Ytterbium	172-1	997	1133	1163	1098	8.09	cps
Ytterbium	172-2	560	483	530	524	7.37	cps
Ytterbium	176-1	69465	67970	67612	68349	1.44	cps
Ytterbium	176-2	27338	26657	27181	27059	1.32	cps
Yttrium	89-1	16381047	16394353	16191972	16322457	0.69	cps
Yttrium	89-2	1600685	1604286	1714062	1639678	3.93	cps
Zinc	66-2	8669924	8454162	8738143	8620743	1.72	cps
Zirconium	90-1	32518402	31889599	32075800	32161267	1.00	cps
Zirconium	91-1	7289027	7096433	7295119	7226860	1.56	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCB02 Instrumnet Name : P8
Client Sample ID : CCB02 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 14:05:27 DataFile Name : 037CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	413	497	497	469	10.26	cps
Antimony	121-1	1170	1170	960	1100	11.02	cps
Arsenic	75-2	23	13	27	21	32.88	cps
Barium	135-1	417	520	370	436	17.62	cps
Barium	137-1	730	703	693	709	2.67	cps
Beryllium	9-1	290	319	336	315	7.40	cps
Bismuth	209-1	6196052	6148774	6143594	6162807	0.47	cps
Bismuth	209-2	2942615	2977464	2912062	2944047	1.11	cps
Bromine	81-1	34258	34569	34713	34514	0.67	cps
Cadmium	108-1	27	33	33	31	12.36	cps
Cadmium	106-1	6478	6485	6532	6498	0.45	cps
Cadmium	111-1	4673	4643	4669	4661	0.35	cps
Calcium	43-1	3921	4224	4157	4101	3.89	cps
Calcium	44-1	91945	91847	90354	91382	0.98	cps
Carbon	12-1	5209217	5082022	5015253	5102164	1.93	cps
Carbon	12-2	35981	35429	35743	35718	0.77	cps
Chlorine	35-1	536311	535794	535879	535994	0.05	cps
Chlorine	35-2	3200	2837	2930	2989	6.31	cps
Chromium	52-2	12949	12799	13713	13154	3.73	cps
Cobalt	59-2	413	320	457	397	17.61	cps
Copper	63-2	4374	4394	4247	4338	1.83	cps
Dysprosium	156-1	10	10	17	12	31.50	cps
Dysprosium	156-2	7	3	0	3	100.05	cps
Erbium	164-1	77	83	77	79	4.87	cps
Erbium	164-2	27	27	20	24	15.75	cps
Gadolinium	160-1	110	103	93	102	8.21	cps
Gadolinium	160-2	27	27	23	26	7.55	cps
Holmium	165-1	10384662	10583402	10493610	10487225	0.95	cps
Holmium	165-2	4299858	4245552	4229315	4258241	0.87	cps
Indium	115-1	9580671	9759061	9691086	9676939	0.93	cps
Indium	115-2	1186294	1191998	1188173	1188822	0.24	cps
Iron	54-2	3927	4017	4021	3988	1.33	cps
Iron	56-2	60705	59728	58747	59727	1.64	cps
Iron	57-2	1363	1633	1433	1477	9.49	cps
Krypton	83-1	433	437	460	443	3.28	cps
Lead	206-1	3761	3741	3597	3699	2.41	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCB02 Instrumnet Name : P8
Client Sample ID : CCB02 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 14:05:27 DataFile Name : 037CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	3160	3100	3197	3153	1.55	cps
Lead	208-1	14547	14327	13853	14242	2.49	cps
Lithium	6-1	3680547	3754927	3747092	3727522	1.10	cps
Magnesium	24-2	1593	1643	1803	1680	6.53	cps
Manganese	55-2	1953	2064	1987	2001	2.82	cps
Molybdenum	94-1	1767	1663	1697	1709	3.09	cps
Molybdenum	95-1	1957	1800	1813	1857	4.68	cps
Molybdenum	96-1	2310	1970	2054	2111	8.40	cps
Molybdenum	97-1	1210	1143	1040	1131	7.57	cps
Molybdenum	98-1	3040	2844	2847	2910	3.87	cps
Neodymium	150-1	7	3	3	4	43.40	cps
Neodymium	150-2	3	0	3	2	86.60	cps
Nickel	60-2	3340	3494	3270	3368	3.39	cps
Phosphorus	31-2	190	207	233	210	10.41	cps
Potassium	39-2	37572	38241	37940	37918	0.88	cps
Rhodium	103-1	9245589	9254609	9257876	9252691	0.07	cps
Rhodium	103-2	4193795	4108311	4129804	4143970	1.07	cps
Scandium	45-1	6856896	6765811	6823859	6815522	0.68	cps
Scandium	45-2	172594	172843	171894	172444	0.29	cps
Selenium	82-1	70	-10	-43	6	1047.66	cps
Selenium	77-2	3	0	0	1	173.21	cps
Selenium	78-2	63	70	40	58	27.26	cps
Silicon	28-1	616682	620545	607995	615074	1.05	cps
Silver	107-1	797	760	750	769	3.20	cps
Silver	109-1	657	727	573	652	11.77	cps
Sodium	23-2	104386	102795	103695	103625	0.77	cps
Strontium	86-1	957	850	867	891	6.44	cps
Strontium	88-1	2450	2364	2520	2445	3.21	cps
Sulfur	34-1	772806	781853	784403	779687	0.78	cps
Terbium	159-1	10853732	10947567	11097976	10966425	1.12	cps
Terbium	159-2	4213812	4188739	4212462	4205004	0.34	cps
Thallium	203-1	1187	1110	1050	1116	6.14	cps
Thallium	205-1	2737	2554	2464	2585	5.39	cps
Tin	118-1	4617	4451	4511	4526	1.87	cps
Titanium	47-1	3503	720	750	1658	96.41	cps
Uranium	238-1	757	673	687	706	6.34	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCB02 Instrumnet Name : P8
Client Sample ID : CCB02 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 14:05:27 DataFile Name : 037CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	110	150	100	120	22.05	cps
Ytterbium	172-1	73	77	53	68	18.62	cps
Ytterbium	172-2	27	33	17	26	32.81	cps
Ytterbium	176-1	1400	1500	1407	1436	3.90	cps
Ytterbium	176-2	357	393	383	378	5.02	cps
Yttrium	89-1	17799833	17790178	17681496	17757169	0.37	cps
Yttrium	89-2	1680937	1672528	1661458	1671641	0.58	cps
Zinc	66-2	3924	3927	3837	3896	1.31	cps
Zirconium	90-1	1653	1620	1600	1625	1.66	cps
Zirconium	91-1	380	317	277	324	16.06	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-14A Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225A Dilution Factor : 1
Date & Time Acquired : 2025-04-07 14:08:49 DataFile Name : 038AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1961511	1962628	1915618	1946586	1.38	cps
Antimony	121-1	17913991	17965561	18073888	17984480	0.45	cps
Arsenic	75-2	987	1093	977	1019	6.35	cps
Barium	135-1	19750802	20033760	20312953	20032505	1.40	cps
Barium	137-1	34401569	33712415	34435888	34183291	1.19	cps
Beryllium	9-1	4280824	4327461	4366179	4324822	0.99	cps
Bismuth	209-1	5768201	5653631	5658731	5693521	1.14	cps
Bismuth	209-2	2717136	2753306	2667325	2712589	1.59	cps
Bromine	81-1	143024	149635	154784	149148	3.95	cps
Cadmium	108-1	331070	326886	330870	329609	0.72	cps
Cadmium	106-1	500410	498544	511748	503568	1.42	cps
Cadmium	111-1	4492700	4528754	4493143	4504866	0.46	cps
Calcium	43-1	17082599	16997001	17175013	17084871	0.52	cps
Calcium	44-1	277467316	273801956	280435429	277234900	1.20	cps
Carbon	12-1	8724848	9345973	9793138	9287986	5.78	cps
Carbon	12-2	76994	77657	78505	77718	0.97	cps
Chlorine	35-1	140990858	149456121	153194518	147880499	4.23	cps
Chlorine	35-2	947010	947356	951489	948618	0.26	cps
Chromium	52-2	5168770	5124666	5116445	5136627	0.55	cps
Cobalt	59-2	9113033	9117823	9022066	9084307	0.59	cps
Copper	63-2	68487117	67270026	67838372	67865172	0.90	cps
Dysprosium	156-1	620	590	620	610	2.84	cps
Dysprosium	156-2	130	130	153	138	9.78	cps
Erbium	164-1	337	277	280	298	11.32	cps
Erbium	164-2	113	110	120	114	4.45	cps
Gadolinium	160-1	380	377	393	383	2.30	cps
Gadolinium	160-2	183	160	177	173	6.94	cps
Holmium	165-1	10393827	10373293	9981820	10249647	2.27	cps
Holmium	165-2	4213928	4228428	4229241	4223866	0.20	cps
Indium	115-1	8865901	8858641	8789728	8838090	0.48	cps
Indium	115-2	1090739	1087349	1078906	1085665	0.56	cps
Iron	54-2	9594703	9459952	9550029	9534895	0.72	cps
Iron	56-2	173031111	172722844	171454577	172402844	0.48	cps
Iron	57-2	4397225	4302843	4264688	4321585	1.58	cps
Krypton	83-1	470	493	433	466	6.50	cps
Lead	206-1	56670281	55100004	55662741	55811009	1.43	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-14A Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225A Dilution Factor : 1
Date & Time Acquired : 2025-04-07 14:08:49 DataFile Name : 038AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	48708449	47547558	48024941	48093649	1.21	cps
Lead	208-1	222777642	218375067	220474877	220542528	1.00	cps
Lithium	6-1	3733967	3715332	3703010	3717436	0.42	cps
Magnesium	24-2	31411349	31514691	31450755	31458931	0.17	cps
Manganese	55-2	22757322	22564341	22443260	22588307	0.70	cps
Molybdenum	94-1	31985157	31582097	31573296	31713517	0.74	cps
Molybdenum	95-1	35472665	35066434	35428709	35322603	0.63	cps
Molybdenum	96-1	39729664	39903239	39753450	39795451	0.24	cps
Molybdenum	97-1	21691105	21778557	21857411	21775691	0.38	cps
Molybdenum	98-1	56361622	56855306	57237776	56818235	0.77	cps
Neodymium	150-1	1290	1333	1180	1268	6.24	cps
Neodymium	150-2	67	117	47	77	47.03	cps
Nickel	60-2	2598498	2563619	2537805	2566641	1.19	cps
Phosphorus	31-2	353	337	390	360	7.58	cps
Potassium	39-2	21313689	21197352	21571478	21360840	0.90	cps
Rhodium	103-1	8762747	8599940	8587531	8650073	1.13	cps
Rhodium	103-2	3888703	3801242	3744795	3811580	1.90	cps
Scandium	45-1	7016864	6895534	6846371	6919590	1.27	cps
Scandium	45-2	184869	185318	183783	184657	0.43	cps
Selenium	82-1	288487	289198	288316	288667	0.16	cps
Selenium	77-2	7275	7179	7189	7214	0.74	cps
Selenium	78-2	24789	24241	24224	24418	1.32	cps
Silicon	28-1	90250902	92307059	91207742	91255234	1.13	cps
Silver	107-1	3565628	3615746	3730075	3637150	2.32	cps
Silver	109-1	3358990	3405223	3370389	3378201	0.71	cps
Sodium	23-2	89572579	89962472	88760289	89431780	0.69	cps
Strontium	86-1	13797867	14009715	13886204	13897929	0.77	cps
Strontium	88-1	121069978	122854908	121788792	121904559	0.74	cps
Sulfur	34-1	1516636	1492331	1497409	1502126	0.85	cps
Terbium	159-1	10698753	10630775	10716179	10681903	0.42	cps
Terbium	159-2	4185728	4156402	4057331	4133154	1.63	cps
Thallium	203-1	13594175	13496249	13591986	13560803	0.41	cps
Thallium	205-1	31711966	31900125	32231211	31947767	0.82	cps
Tin	118-1	12943542	13038348	13017779	12999890	0.38	cps
Titanium	47-1	11728	12155	12185	12023	2.13	cps
Uranium	238-1	40562089	40080706	41257282	40633359	1.46	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1711-14A Instrumnet Name : P8
Client Sample ID : MW-18B-56-040225A Dilution Factor : 1
Date & Time Acquired : 2025-04-07 14:08:49 DataFile Name : 038AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	4136145	4121381	4182320	4146615	0.77	cps
Ytterbium	172-1	683	640	600	641	6.50	cps
Ytterbium	172-2	310	250	300	287	11.22	cps
Ytterbium	176-1	67511	68593	66526	67544	1.53	cps
Ytterbium	176-2	27048	26794	27225	27022	0.80	cps
Yttrium	89-1	17763961	17799816	17566318	17710032	0.71	cps
Yttrium	89-2	1703205	1654209	1658404	1671939	1.62	cps
Zinc	66-2	8025550	8066930	8054010	8048830	0.26	cps
Zirconium	90-1	32934066	32926270	33171894	33010743	0.42	cps
Zirconium	91-1	7368101	7315752	7225966	7303273	0.98	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1731-05 Instrumnet Name : P8
Client Sample ID : EB01-040325 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 14:11:39 DataFile Name : 039AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	947	850	927	908	5.62	cps
Antimony	121-1	1150	960	960	1023	10.72	cps
Arsenic	75-2	3	3	23	10	115.51	cps
Barium	135-1	1293	1107	1013	1138	12.53	cps
Barium	137-1	2047	1877	1933	1952	4.43	cps
Beryllium	9-1	543	510	482	512	6.01	cps
Bismuth	209-1	6110661	6187062	6100928	6132884	0.77	cps
Bismuth	209-2	2994298	2971019	3023845	2996387	0.88	cps
Bromine	81-1	42738	41000	40214	41318	3.13	cps
Cadmium	108-1	40	47	43	43	7.70	cps
Cadmium	106-1	6685	6488	6398	6524	2.25	cps
Cadmium	111-1	4958	4716	4618	4764	3.67	cps
Calcium	43-1	4407	4231	4141	4260	3.19	cps
Calcium	44-1	96876	94457	94373	95236	1.49	cps
Carbon	12-1	8365538	8931581	9243696	8846939	5.03	cps
Carbon	12-2	69390	69175	70974	69846	1.41	cps
Chlorine	35-1	4401278	3926061	3491791	3939710	11.55	cps
Chlorine	35-2	16827	15599	14738	15721	6.68	cps
Chromium	52-2	2430	2364	2440	2411	1.73	cps
Cobalt	59-2	190	247	217	218	13.02	cps
Copper	63-2	5378	5021	5314	5238	3.63	cps
Dysprosium	156-1	50	47	10	36	62.42	cps
Dysprosium	156-2	0	10	7	6	91.64	cps
Erbium	164-1	67	97	90	84	18.65	cps
Erbium	164-2	37	37	50	41	18.72	cps
Gadolinium	160-1	137	113	123	124	9.41	cps
Gadolinium	160-2	30	23	20	24	20.83	cps
Holmium	165-1	10554199	10551499	10660374	10588691	0.59	cps
Holmium	165-2	4347367	4242356	4303368	4297697	1.23	cps
Indium	115-1	9804223	9922925	9639806	9788985	1.45	cps
Indium	115-2	1191021	1191707	1190366	1191031	0.06	cps
Iron	54-2	2740	2600	2857	2733	4.70	cps
Iron	56-2	40945	41477	41343	41255	0.67	cps
Iron	57-2	1083	1027	1027	1046	3.13	cps
Krypton	83-1	430	377	483	430	12.40	cps
Lead	206-1	8073	7172	6715	7320	9.44	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1731-05 Instrumnet Name : P8
Client Sample ID : EB01-040325 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 14:11:39 DataFile Name : 039AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	6688	6101	5581	6124	9.05	cps
Lead	208-1	31582	27919	26000	28500	9.95	cps
Lithium	6-1	3877218	3892033	3758193	3842481	1.91	cps
Magnesium	24-2	2357	2244	2030	2210	7.51	cps
Manganese	55-2	5264	5354	5451	5357	1.74	cps
Molybdenum	94-1	2920	2757	2447	2708	8.88	cps
Molybdenum	95-1	2044	1603	1387	1678	19.94	cps
Molybdenum	96-1	2580	2090	1890	2187	16.24	cps
Molybdenum	97-1	1197	1090	893	1060	14.52	cps
Molybdenum	98-1	3120	2540	2220	2627	17.37	cps
Neodymium	150-1	47	73	53	58	24.02	cps
Neodymium	150-2	10	7	13	10	33.30	cps
Nickel	60-2	1490	1277	1377	1381	7.73	cps
Phosphorus	31-2	250	343	240	278	20.52	cps
Potassium	39-2	42776	42663	42399	42613	0.45	cps
Rhodium	103-1	9498854	9468493	9253427	9406925	1.42	cps
Rhodium	103-2	4127932	4198503	4199028	4175154	0.98	cps
Scandium	45-1	6979532	6806119	6773081	6852911	1.62	cps
Scandium	45-2	178288	178630	176875	177931	0.52	cps
Selenium	82-1	37	13	13	21	63.83	cps
Selenium	77-2	0	3	0	1	173.21	cps
Selenium	78-2	30	33	63	42	43.48	cps
Silicon	28-1	878538	881028	875413	878326	0.32	cps
Silver	107-1	1233	1023	897	1051	16.18	cps
Silver	109-1	1040	813	693	849	20.74	cps
Sodium	23-2	137877	135758	134660	136098	1.20	cps
Strontium	86-1	1890	1593	1460	1648	13.36	cps
Strontium	88-1	9427	8956	8739	9041	3.89	cps
Sulfur	34-1	791177	795406	794287	793623	0.28	cps
Terbium	159-1	11018647	10948564	10933098	10966770	0.42	cps
Terbium	159-2	4306588	4217352	4303102	4275681	1.18	cps
Thallium	203-1	4237	3334	2784	3452	21.27	cps
Thallium	205-1	9674	7596	6658	7976	19.35	cps
Tin	118-1	11789	11735	12279	11934	2.51	cps
Titanium	47-1	767	740	690	732	5.32	cps
Uranium	238-1	1217	940	747	968	24.41	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1731-05 Instrumnet Name : P8
Client Sample ID : EB01-040325 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 14:11:39 DataFile Name : 039AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	130	133	77	113	28.06	cps
Ytterbium	172-1	43	83	100	76	38.55	cps
Ytterbium	172-2	30	47	40	39	21.57	cps
Ytterbium	176-1	1610	1417	1433	1487	7.21	cps
Ytterbium	176-2	377	380	407	388	4.24	cps
Yttrium	89-1	18299048	18162950	18102787	18188262	0.55	cps
Yttrium	89-2	1685567	1672473	1671839	1676626	0.46	cps
Zinc	66-2	3487	3634	3340	3487	4.21	cps
Zirconium	90-1	4651	4347	3864	4287	9.26	cps
Zirconium	91-1	1083	997	890	990	9.78	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1731-06 Instrumnet Name : P8
Client Sample ID : EB01-040325 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 14:14:59 DataFile Name : 040AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	883	790	823	832	5.68	cps
Antimony	121-1	770	700	677	716	6.79	cps
Arsenic	75-2	13	17	17	16	12.40	cps
Barium	135-1	730	710	723	721	1.41	cps
Barium	137-1	1200	1123	937	1087	12.46	cps
Beryllium	9-1	269	282	276	276	2.35	cps
Bismuth	209-1	6225037	6310407	6080367	6205270	1.87	cps
Bismuth	209-2	2994751	2924736	2939421	2952970	1.25	cps
Bromine	81-1	35829	35836	35014	35560	1.33	cps
Cadmium	108-1	33	27	23	28	18.33	cps
Cadmium	106-1	6438	6312	6548	6433	1.84	cps
Cadmium	111-1	4593	4499	4671	4588	1.87	cps
Calcium	43-1	4217	4284	4277	4260	0.86	cps
Calcium	44-1	98877	106605	98095	101192	4.65	cps
Carbon	12-1	8280830	8926245	9259389	8822155	5.64	cps
Carbon	12-2	68542	68070	69302	68638	0.91	cps
Chlorine	35-1	1815615	1713100	1652003	1726906	4.79	cps
Chlorine	35-2	8503	8112	7879	8165	3.86	cps
Chromium	52-2	1827	1953	1890	1890	3.35	cps
Cobalt	59-2	150	150	143	148	2.60	cps
Copper	63-2	4611	4687	4697	4665	1.02	cps
Dysprosium	156-1	33	23	23	27	21.65	cps
Dysprosium	156-2	7	7	3	6	34.70	cps
Erbium	164-1	87	77	57	73	20.83	cps
Erbium	164-2	37	17	33	29	37.08	cps
Gadolinium	160-1	93	130	167	130	28.20	cps
Gadolinium	160-2	43	43	13	33	51.97	cps
Holmium	165-1	10631907	10835201	10411275	10626127	2.00	cps
Holmium	165-2	4215701	4296330	4260347	4257460	0.95	cps
Indium	115-1	9790693	9821137	9540740	9717524	1.58	cps
Indium	115-2	1184977	1183816	1193236	1187343	0.43	cps
Iron	54-2	1823	1873	2060	1919	6.50	cps
Iron	56-2	29150	29392	28789	29110	1.04	cps
Iron	57-2	740	647	743	710	7.73	cps
Krypton	83-1	353	470	400	408	14.40	cps
Lead	206-1	4101	3964	3794	3953	3.89	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1731-06 Instrumnet Name : P8
Client Sample ID : EB01-040325 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 14:14:59 DataFile Name : 040AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	3467	3300	3390	3386	2.46	cps
Lead	208-1	15407	15574	15320	15434	0.83	cps
Lithium	6-1	3873650	3785372	3744431	3801151	1.74	cps
Magnesium	24-2	4114	4137	4077	4110	0.74	cps
Manganese	55-2	16259	16767	15972	16333	2.46	cps
Molybdenum	94-1	1073	1087	1030	1063	2.79	cps
Molybdenum	95-1	487	527	540	518	5.36	cps
Molybdenum	96-1	753	763	733	750	2.04	cps
Molybdenum	97-1	337	330	337	334	1.15	cps
Molybdenum	98-1	937	793	823	851	8.88	cps
Neodymium	150-1	17	17	30	21	36.45	cps
Neodymium	150-2	7	3	10	7	50.03	cps
Nickel	60-2	1440	1493	1447	1460	1.99	cps
Phosphorus	31-2	267	213	280	253	13.92	cps
Potassium	39-2	40497	40239	39878	40205	0.77	cps
Rhodium	103-1	9454920	9556900	9255026	9422282	1.63	cps
Rhodium	103-2	4145417	4140796	4173929	4153381	0.43	cps
Scandium	45-1	6974002	6860293	6699834	6844710	2.01	cps
Scandium	45-2	173454	173995	174694	174048	0.36	cps
Selenium	82-1	140	-70	20	30	351.17	cps
Selenium	77-2	0	0	3	1	173.21	cps
Selenium	78-2	40	37	53	43	20.34	cps
Silicon	28-1	843016	848018	856630	849221	0.81	cps
Silver	107-1	423	443	490	452	7.57	cps
Silver	109-1	357	303	330	330	8.08	cps
Sodium	23-2	149978	149210	147719	148969	0.77	cps
Strontium	86-1	1713	1573	1590	1626	4.70	cps
Strontium	88-1	9073	8810	9090	8991	1.75	cps
Sulfur	34-1	798535	797440	799231	798402	0.11	cps
Terbium	159-1	10950142	10960079	10737068	10882430	1.16	cps
Terbium	159-2	4254142	4306095	4225199	4261812	0.96	cps
Thallium	203-1	1487	1227	1330	1348	9.71	cps
Thallium	205-1	3481	3114	2947	3180	8.58	cps
Tin	118-1	16977	16226	16744	16649	2.31	cps
Titanium	47-1	663	750	713	709	6.14	cps
Uranium	238-1	323	337	287	316	8.21	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1731-06 Instrumnet Name : P8
Client Sample ID : EB01-040325 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 14:14:59 DataFile Name : 040AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	80	50	73	68	23.24	cps
Ytterbium	172-1	40	90	67	66	38.16	cps
Ytterbium	172-2	40	20	27	29	35.25	cps
Ytterbium	176-1	1413	1553	1377	1448	6.44	cps
Ytterbium	176-2	303	400	300	334	16.98	cps
Yttrium	89-1	17922248	18039597	17548621	17836822	1.44	cps
Yttrium	89-2	1650399	1669461	1677535	1665798	0.84	cps
Zinc	66-2	3587	3654	3741	3661	2.10	cps
Zirconium	90-1	2004	2014	1823	1947	5.49	cps
Zirconium	91-1	373	413	413	400	5.77	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-01DLX10 Instrumnet Name : P8
Client Sample ID : 32725DL Dilution Factor : 10
Date & Time Acquired : 2025-04-07 14:18:21 DataFile Name : 041AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	3087	3267	3137	3164	2.94	cps
Antimony	121-1	8106	8156	8283	8181	1.11	cps
Arsenic	75-2	49627	51537	53271	51478	3.54	cps
Barium	135-1	12002	12132	12289	12141	1.18	cps
Barium	137-1	20733	21077	20873	20894	0.83	cps
Beryllium	9-1	-1403	-1475	-1468	-1449	-2.74	cps
Bismuth	209-1	7445168	7429199	7404651	7426339	0.27	cps
Bismuth	209-2	3561532	3580022	3641561	3594371	1.17	cps
Bromine	81-1	54017	53191	52853	53353	1.12	cps
Cadmium	108-1	767	427	247	480	55.02	cps
Cadmium	106-1	10624	9543	9100	9756	8.04	cps
Cadmium	111-1	7120	6598	6414	6711	5.46	cps
Calcium	43-1	648279	651492	655490	651754	0.55	cps
Calcium	44-1	12159445	12414108	12375462	12316338	1.11	cps
Carbon	12-1						cps
Carbon	12-2	49931041	50396398	49167196	49831545	1.25	cps
Chlorine	35-1	2703430	2802467	2868838	2791578	2.98	cps
Chlorine	35-2	15679	15558	15675	15637	0.44	cps
Chromium	52-2	7165	6998	7319	7161	2.24	cps
Cobalt	59-2	9767	9377	9226	9457	2.95	cps
Copper	63-2	16193	16193	15822	16069	1.33	cps
Dysprosium	156-1	57	30	57	48	32.23	cps
Dysprosium	156-2	17	10	17	14	26.66	cps
Erbium	164-1	83	120	70	91	28.42	cps
Erbium	164-2	40	37	60	46	27.70	cps
Gadolinium	160-1	173	127	110	137	24.02	cps
Gadolinium	160-2	33	33	53	40	28.87	cps
Holmium	165-1	12597188	12452977	12636142	12562102	0.77	cps
Holmium	165-2	5177555	5261508	5314023	5251029	1.31	cps
Indium	115-1	11720458	11528184	11615227	11621289	0.83	cps
Indium	115-2	1415043	1418147	1456588	1429926	1.62	cps
Iron	54-2	10042856	10037072	9768313	9949414	1.58	cps
Iron	56-2	184482417	185267284	180968104	183572602	1.25	cps
Iron	57-2	4636730	4672246	4592041	4633672	0.87	cps
Krypton	83-1	437	527	477	480	9.39	cps
Lead	206-1	8089	8470	8460	8339	2.60	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-01DLX10 Instrumnet Name : P8
Client Sample ID : 32725DL Dilution Factor : 10
Date & Time Acquired : 2025-04-07 14:18:21 DataFile Name : 041AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	7042	7095	7062	7066	0.38	cps
Lead	208-1	32326	32446	32276	32349	0.27	cps
Lithium	6-1	4651307	4701701	4800193	4717734	1.61	cps
Magnesium	24-2	579485	587353	576533	581124	0.96	cps
Manganese	55-2	3943876	4000941	3953624	3966147	0.77	cps
Molybdenum	94-1	200801	107982	74335	127706	51.29	cps
Molybdenum	95-1	6745	6368	6535	6549	2.88	cps
Molybdenum	96-1	41590	25771	21210	29524	36.23	cps
Molybdenum	97-1	3894	3864	3777	3845	1.58	cps
Molybdenum	98-1	9990	10077	9994	10020	0.49	cps
Neodymium	150-1	20	27	33	27	24.99	cps
Neodymium	150-2	7	7	0	4	86.60	cps
Nickel	60-2	3477	3550	3687	3572	2.98	cps
Phosphorus	31-2	670	683	687	680	1.30	cps
Potassium	39-2	2547962	2569907	2590108	2569326	0.82	cps
Rhodium	103-1	11297014	11224959	11352609	11291527	0.57	cps
Rhodium	103-2	5105533	5060954	5148135	5104874	0.85	cps
Scandium	45-1	8424644	8626954	8624793	8558797	1.36	cps
Scandium	45-2	210144	212955	221383	214827	2.72	cps
Selenium	82-1	21551	24118	23961	23210	6.20	cps
Selenium	77-2	553	540	527	540	2.47	cps
Selenium	78-2	1777	1817	1960	1851	5.21	cps
Silicon	28-1	36869224	37802120	38414646	37695330	2.06	cps
Silver	107-1	940	760	607	769	21.70	cps
Silver	109-1	380	377	433	397	8.02	cps
Sodium	23-2	10922752	11056997	10733369	10904373	1.49	cps
Strontium	86-1	132662	133097	134553	133437	0.74	cps
Strontium	88-1	1126120	1156332	1152225	1144893	1.43	cps
Sulfur	34-1	1108019	1082523	1078917	1089820	1.46	cps
Terbium	159-1	13221125	13192766	13131242	13181711	0.35	cps
Terbium	159-2	5035691	5005362	5170128	5070394	1.73	cps
Thallium	203-1	5588	4591	4157	4779	15.35	cps
Thallium	205-1	12750	11245	9647	11214	13.84	cps
Tin	118-1	10714	11125	11512	11117	3.59	cps
Titanium	47-1	2794	3024	2774	2864	4.85	cps
Uranium	238-1	730	713	710	718	1.49	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-01DLX10 Instrumnet Name : P8
Client Sample ID : 32725DL Dilution Factor : 10
Date & Time Acquired : 2025-04-07 14:18:21 DataFile Name : 041AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	537	523	520	527	1.67	cps
Ytterbium	172-1	97	120	77	98	22.18	cps
Ytterbium	172-2	27	60	33	40	44.09	cps
Ytterbium	176-1	2784	2287	2167	2412	13.55	cps
Ytterbium	176-2	523	507	550	527	4.15	cps
Yttrium	89-1	21573518	21644800	21733481	21650600	0.37	cps
Yttrium	89-2	2023216	2032721	2072822	2042920	1.29	cps
Zinc	66-2	41678	41236	41484	41466	0.53	cps
Zirconium	90-1	551933	284436	196209	344192	53.82	cps
Zirconium	91-1	121165	62675	43438	75759	53.43	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-02DLX10 Instrumnet Name : P8
Client Sample ID : 32525DL Dilution Factor : 10
Date & Time Acquired : 2025-04-07 14:21:35 DataFile Name : 042AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	12052	12222	12339	12204	1.18	cps
Antimony	121-1	8866	9013	8723	8867	1.64	cps
Arsenic	75-2	90793	93776	93424	92664	1.76	cps
Barium	135-1	22375	23133	22549	22686	1.75	cps
Barium	137-1	37950	38802	38959	38570	1.41	cps
Beryllium	9-1	-961	-958	-960	-960	-0.19	cps
Bismuth	209-1	7950122	8072549	8041943	8021538	0.79	cps
Bismuth	209-2	3899957	3933526	3939439	3924307	0.54	cps
Bromine	81-1	57641	56781	57595	57339	0.84	cps
Cadmium	108-1	117	150	147	138	13.32	cps
Cadmium	106-1	9613	9934	9747	9765	1.65	cps
Cadmium	111-1	6848	6995	6913	6919	1.07	cps
Calcium	43-1	370891	379154	381705	377250	1.50	cps
Calcium	44-1	8597903	8417780	8484704	8500129	1.07	cps
Carbon	12-1						cps
Carbon	12-2	74885521	74910832	75847384	75214579	0.73	cps
Chlorine	35-1	1852890	1929747	1943018	1908552	2.55	cps
Chlorine	35-2	10734	10167	10647	10516	2.90	cps
Chromium	52-2	11952	11855	11488	11765	2.08	cps
Cobalt	59-2	2917	2880	2647	2815	5.20	cps
Copper	63-2	22268	22855	22498	22540	1.31	cps
Dysprosium	156-1	377	350	353	360	4.04	cps
Dysprosium	156-2	147	137	133	139	4.99	cps
Erbium	164-1	477	390	390	419	11.95	cps
Erbium	164-2	167	127	150	148	13.60	cps
Gadolinium	160-1	463	543	477	494	8.67	cps
Gadolinium	160-2	187	180	180	182	2.11	cps
Holmium	165-1	13717133	13900867	14009944	13875981	1.07	cps
Holmium	165-2	5821789	5671633	5711551	5734991	1.36	cps
Indium	115-1	12702958	12837205	12863832	12801332	0.67	cps
Indium	115-2	1714013	1706917	1690261	1703730	0.72	cps
Iron	54-2	12763499	12738317	12958962	12820259	0.94	cps
Iron	56-2	234403450	234121777	235561103	234695443	0.33	cps
Iron	57-2	5904352	5966694	5944792	5938612	0.53	cps
Krypton	83-1	477	387	437	433	10.41	cps
Lead	206-1	18720	19341	19211	19091	1.72	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-02DLX10 Instrumnet Name : P8
Client Sample ID : 32525DL Dilution Factor : 10
Date & Time Acquired : 2025-04-07 14:21:35 DataFile Name : 042AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	15816	15927	15950	15898	0.45	cps
Lead	208-1	72920	75136	74307	74121	1.51	cps
Lithium	6-1	5136640	5115064	5166699	5139468	0.50	cps
Magnesium	24-2	538838	538869	548718	542142	1.05	cps
Manganese	55-2	5133744	5219073	5174599	5175805	0.82	cps
Molybdenum	94-1	31780	27634	25554	28322	11.19	cps
Molybdenum	95-1	6228	6208	6452	6296	2.15	cps
Molybdenum	96-1	14020	13620	13276	13639	2.73	cps
Molybdenum	97-1	3784	3797	3967	3849	2.66	cps
Molybdenum	98-1	9787	9950	9907	9881	0.86	cps
Neodymium	150-1	407	457	420	428	6.05	cps
Neodymium	150-2	123	150	87	120	26.50	cps
Nickel	60-2	3320	3510	3217	3349	4.44	cps
Phosphorus	31-2	700	650	680	677	3.72	cps
Potassium	39-2	219040	219835	221477	220117	0.56	cps
Rhodium	103-1	12416850	12821973	12621297	12620040	1.61	cps
Rhodium	103-2	5746573	5713756	5652846	5704392	0.83	cps
Scandium	45-1	9541989	9565862	9589258	9565703	0.25	cps
Scandium	45-2	238884	241440	242453	240926	0.76	cps
Selenium	82-1	25411	26957	27221	26529	3.69	cps
Selenium	77-2	663	730	543	646	14.65	cps
Selenium	78-2	2050	2024	1997	2024	1.32	cps
Silicon	28-1	52411348	54800664	55401479	54204497	2.92	cps
Silver	107-1	527	477	533	512	6.05	cps
Silver	109-1	363	340	407	370	9.14	cps
Sodium	23-2	6828539	6816155	6888239	6844311	0.56	cps
Strontium	86-1	93849	95135	96242	95075	1.26	cps
Strontium	88-1	818275	825012	821695	821661	0.41	cps
Sulfur	34-1	1083653	1091618	1097493	1090921	0.64	cps
Terbium	159-1	14190251	14703454	14444885	14446197	1.78	cps
Terbium	159-2	5581706	5582765	5589024	5584498	0.07	cps
Thallium	203-1	3507	3324	2850	3227	10.50	cps
Thallium	205-1	8703	8169	7295	8056	8.82	cps
Tin	118-1	14097	14241	14972	14437	3.25	cps
Titanium	47-1	11189	8002	7552	8915	22.24	cps
Uranium	238-1	1073	990	990	1018	4.73	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-02DLX10 Instrumnet Name : P8
Client Sample ID : 32525DL Dilution Factor : 10
Date & Time Acquired : 2025-04-07 14:21:35 DataFile Name : 042AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	1047	983	967	999	4.23	cps
Ytterbium	172-1	173	180	127	160	18.16	cps
Ytterbium	172-2	63	80	113	86	29.76	cps
Ytterbium	176-1	2450	2197	2150	2266	7.13	cps
Ytterbium	176-2	463	530	480	491	7.06	cps
Yttrium	89-1	23876659	24500642	23905671	24094324	1.46	cps
Yttrium	89-2	2255699	2308451	2289058	2284403	1.17	cps
Zinc	66-2	18242	17928	18295	18155	1.09	cps
Zirconium	90-1	77816	67777	61669	69087	11.80	cps
Zirconium	91-1	17414	15198	14071	15561	10.93	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-01DL2X25 Instrumnet Name : P8
Client Sample ID : 32725DL2 Dilution Factor : 25
Date & Time Acquired : 2025-04-07 14:33:21 DataFile Name : 043AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1340	1197	1183	1240	7.00	cps
Antimony	121-1	2574	2520	2594	2562	1.48	cps
Arsenic	75-2	6181	6335	6815	6444	5.13	cps
Barium	135-1	3551	3574	3454	3526	1.80	cps
Barium	137-1	6312	6078	6432	6274	2.87	cps
Beryllium	9-1	-349	-336	-369	-351	-4.74	cps
Bismuth	209-1	6932669	6867018	6998749	6932812	0.95	cps
Bismuth	209-2	3424794	3442495	3403368	3423553	0.57	cps
Bromine	81-1	42080	41883	42424	42129	0.65	cps
Cadmium	108-1	77	43	90	70	34.34	cps
Cadmium	106-1	8206	7816	8056	8026	2.45	cps
Cadmium	111-1	5767	5517	5609	5631	2.24	cps
Calcium	43-1	194369	196822	194781	195324	0.67	cps
Calcium	44-1	3944467	3979727	3849222	3924472	1.72	cps
Carbon	12-1	2671002627	2738970733	2765365292	2725112884	1.79	cps
Carbon	12-2	17588000	17761510	17565103	17638204	0.61	cps
Chlorine	35-1	1026043	1083177	1123834	1077685	4.56	cps
Chlorine	35-2	6251	6295	6475	6340	1.87	cps
Chromium	52-2	16640	16299	16573	16504	1.09	cps
Cobalt	59-2	3394	3217	3324	3312	2.69	cps
Copper	63-2	5985	5925	5638	5849	3.17	cps
Dysprosium	156-1	17	27	17	20	28.86	cps
Dysprosium	156-2	7	3	7	6	34.70	cps
Erbium	164-1	67	93	97	86	19.22	cps
Erbium	164-2	40	17	27	28	42.13	cps
Gadolinium	160-1	137	110	107	118	13.96	cps
Gadolinium	160-2	30	30	13	24	39.37	cps
Holmium	165-1	11773414	11858687	11944585	11858895	0.72	cps
Holmium	165-2	4974848	4934801	4943834	4951161	0.42	cps
Indium	115-1	10998450	10934671	10790990	10908037	0.97	cps
Indium	115-2	1353805	1365003	1364484	1361098	0.46	cps
Iron	54-2	3360281	3309299	3351850	3340477	0.82	cps
Iron	56-2	60430397	60399032	60706824	60512085	0.28	cps
Iron	57-2	1553615	1537038	1555092	1548582	0.65	cps
Krypton	83-1	457	437	383	426	8.91	cps
Lead	206-1	2840	3044	2977	2954	3.51	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-01DL2X25 Instrumnet Name : P8
Client Sample ID : 32725DL2 Dilution Factor : 25
Date & Time Acquired : 2025-04-07 14:33:21 DataFile Name : 043AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	2417	2724	2720	2620	6.72	cps
Lead	208-1	11559	11829	11792	11727	1.25	cps
Lithium	6-1	4443243	4450578	4394863	4429561	0.68	cps
Magnesium	24-2	200171	197784	198956	198970	0.60	cps
Manganese	55-2	1264875	1275777	1260799	1267150	0.61	cps
Molybdenum	94-1	12446	11161	10074	11227	10.58	cps
Molybdenum	95-1	2710	2940	2917	2856	4.43	cps
Molybdenum	96-1	5358	5318	5064	5247	3.03	cps
Molybdenum	97-1	1647	1590	1650	1629	2.07	cps
Molybdenum	98-1	4331	3987	4344	4221	4.79	cps
Neodymium	150-1	27	7	17	17	59.99	cps
Neodymium	150-2	7	13	13	11	34.61	cps
Nickel	60-2	4297	4311	4444	4351	1.86	cps
Phosphorus	31-2	393	343	350	362	7.49	cps
Potassium	39-2	900963	900463	911107	904178	0.66	cps
Rhodium	103-1	10634349	10829794	10617996	10694047	1.10	cps
Rhodium	103-2	4852005	4867880	4918166	4879350	0.71	cps
Scandium	45-1	8017258	7978747	7798064	7931357	1.48	cps
Scandium	45-2	204302	205606	208541	206150	1.05	cps
Selenium	82-1	3751	4428	4704	4294	11.42	cps
Selenium	77-2	123	133	83	113	23.35	cps
Selenium	78-2	460	443	463	456	2.35	cps
Silicon	28-1	14252609	14576449	14747403	14525487	1.73	cps
Silver	107-1	297	257	250	268	9.42	cps
Silver	109-1	140	147	140	142	2.71	cps
Sodium	23-2	3930588	3965447	3943768	3946601	0.45	cps
Strontium	86-1	42916	43387	42959	43087	0.60	cps
Strontium	88-1	368201	368696	369866	368921	0.23	cps
Sulfur	34-1	1020849	1018833	1008061	1015914	0.68	cps
Terbium	159-1	12331238	12365816	12287375	12328143	0.32	cps
Terbium	159-2	4827676	4900560	4794865	4841034	1.12	cps
Thallium	203-1	1050	973	957	993	5.01	cps
Thallium	205-1	2607	2467	2237	2437	7.67	cps
Tin	118-1	6559	6178	6268	6335	3.14	cps
Titanium	47-1	1143	1117	1073	1111	3.18	cps
Uranium	238-1	143	157	207	169	19.77	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-01DL2X25 Instrumnet Name : P8
Client Sample ID : 32725DL2 Dilution Factor : 25
Date & Time Acquired : 2025-04-07 14:33:21 DataFile Name : 043AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	267	250	247	254	4.21	cps
Ytterbium	172-1	40	73	67	60	29.40	cps
Ytterbium	172-2	33	37	40	37	9.10	cps
Ytterbium	176-1	1727	1773	1713	1738	1.81	cps
Ytterbium	176-2	383	440	550	458	18.51	cps
Yttrium	89-1	20467867	20890391	20494857	20617705	1.15	cps
Yttrium	89-2	1940769	1950783	1970278	1953943	0.77	cps
Zinc	66-2	14885	14801	14781	14822	0.37	cps
Zirconium	90-1	31152	27066	23944	27387	13.20	cps
Zirconium	91-1	6528	5895	5641	6021	7.59	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-02DL2X25 Instrumnet Name : P8
Client Sample ID : 32525DL2 Dilution Factor : 25
Date & Time Acquired : 2025-04-07 14:36:37 DataFile Name : 044AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	4364	4451	4194	4336	3.01	cps
Antimony	121-1	2697	2927	2937	2854	4.76	cps
Arsenic	75-2	11181	11368	11555	11368	1.64	cps
Barium	135-1	6905	7082	7022	7003	1.28	cps
Barium	137-1	12242	12252	12723	12406	2.21	cps
Beryllium	9-1	-222	-228	-229	-226	-1.61	cps
Bismuth	209-1	7342480	7241884	7207877	7264080	0.96	cps
Bismuth	209-2	3584851	3566697	3538155	3563234	0.66	cps
Bromine	81-1	44163	44006	43207	43792	1.17	cps
Cadmium	108-1	80	60	57	66	19.25	cps
Cadmium	106-1	8326	8643	8519	8496	1.88	cps
Cadmium	111-1	5842	6105	5984	5977	2.20	cps
Calcium	43-1	126420	127284	127398	127034	0.42	cps
Calcium	44-1	3051779	3128294	3012626	3064233	1.92	cps
Carbon	12-1	3875666929	4036740740	4027742767	3980050145	2.27	cps
Carbon	12-2	25807257	25915420	25003890	25575523	1.95	cps
Chlorine	35-1	810420	828205	833549	824058	1.47	cps
Chlorine	35-2	4794	4924	4724	4814	2.11	cps
Chromium	52-2	18752	19003	18322	18692	1.84	cps
Cobalt	59-2	1097	1083	1017	1066	4.02	cps
Copper	63-2	6148	6298	6382	6276	1.89	cps
Dysprosium	156-1	100	120	130	117	13.09	cps
Dysprosium	156-2	63	53	50	56	12.49	cps
Erbium	164-1	197	197	177	190	6.08	cps
Erbium	164-2	80	50	137	89	49.51	cps
Gadolinium	160-1	220	237	293	250	15.38	cps
Gadolinium	160-2	107	103	73	94	19.44	cps
Holmium	165-1	12179286	12377089	12421332	12325902	1.05	cps
Holmium	165-2	5220538	5148407	5096797	5155247	1.21	cps
Indium	115-1	11515980	11310534	11466119	11430878	0.94	cps
Indium	115-2	1414616	1411906	1418056	1414860	0.22	cps
Iron	54-2	3919636	3934976	3846214	3900275	1.22	cps
Iron	56-2	72030117	70977012	70943477	71316869	0.87	cps
Iron	57-2	1868397	1815559	1837618	1840525	1.44	cps
Krypton	83-1	460	453	487	467	3.78	cps
Lead	206-1	6638	6688	6872	6733	1.83	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-02DL2X25 Instrumnet Name : P8
Client Sample ID : 32525DL2 Dilution Factor : 25
Date & Time Acquired : 2025-04-07 14:36:37 DataFile Name : 044AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	5535	5661	5801	5666	2.36	cps
Lead	208-1	25760	25330	26708	25933	2.72	cps
Lithium	6-1	4624149	4669399	4677641	4657063	0.62	cps
Magnesium	24-2	179987	180080	177238	179102	0.90	cps
Manganese	55-2	1581557	1542009	1562339	1561968	1.27	cps
Molybdenum	94-1	7122	7609	7529	7420	3.52	cps
Molybdenum	95-1	2637	2730	2457	2608	5.33	cps
Molybdenum	96-1	4617	4407	4457	4494	2.44	cps
Molybdenum	97-1	1677	1683	1673	1678	0.30	cps
Molybdenum	98-1	4227	4114	4111	4151	1.60	cps
Neodymium	150-1	187	143	190	173	15.02	cps
Neodymium	150-2	43	67	63	58	21.85	cps
Nickel	60-2	4481	4531	4314	4442	2.55	cps
Phosphorus	31-2	333	337	340	337	0.99	cps
Potassium	39-2	98080	97071	97033	97395	0.61	cps
Rhodium	103-1	11012901	11405702	11219937	11212847	1.75	cps
Rhodium	103-2	5150760	5140731	5068182	5119891	0.88	cps
Scandium	45-1	8455338	8485751	8502887	8481325	0.28	cps
Scandium	45-2	215945	215979	214650	215524	0.35	cps
Selenium	82-1	6512	7396	7889	7266	9.60	cps
Selenium	77-2	223	177	187	196	12.57	cps
Selenium	78-2	663	733	623	673	8.27	cps
Silicon	28-1	20111898	21103001	20980400	20731766	2.61	cps
Silver	107-1	277	257	313	282	10.18	cps
Silver	109-1	160	167	170	166	3.08	cps
Sodium	23-2	2483519	2483121	2450917	2472519	0.76	cps
Strontium	86-1	31800	32578	31175	31851	2.21	cps
Strontium	88-1	270580	270845	271853	271093	0.25	cps
Sulfur	34-1	1032785	1015406	1014892	1021027	1.00	cps
Terbium	159-1	12919944	12737151	13083971	12913689	1.34	cps
Terbium	159-2	4973701	4919867	5018610	4970726	0.99	cps
Thallium	203-1	970	1060	1033	1021	4.53	cps
Thallium	205-1	2547	2474	2344	2455	4.20	cps
Tin	118-1	7522	7412	7475	7470	0.74	cps
Titanium	47-1	2444	2490	2434	2456	1.23	cps
Uranium	238-1	300	280	350	310	11.63	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-02DL2X25 Instrumnet Name : P8
Client Sample ID : 32525DL2 Dilution Factor : 25
Date & Time Acquired : 2025-04-07 14:36:37 DataFile Name : 044AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	433	547	470	483	11.97	cps
Ytterbium	172-1	100	107	160	122	26.91	cps
Ytterbium	172-2	60	40	60	53	21.65	cps
Ytterbium	176-1	1937	1887	1780	1868	4.28	cps
Ytterbium	176-2	447	453	510	470	7.40	cps
Yttrium	89-1	21462517	21545970	21400463	21469650	0.34	cps
Yttrium	89-2	2088340	2038397	2056675	2061138	1.23	cps
Zinc	66-2	6492	6488	6512	6497	0.19	cps
Zirconium	90-1	16563	16960	16637	16720	1.26	cps
Zirconium	91-1	3527	3761	3751	3679	3.59	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-01DL3X50 Instrumnet Name : P8
Client Sample ID : 32725DL Dilution Factor : 50
Date & Time Acquired : 2025-04-07 14:39:54 DataFile Name : 045AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1030	1043	990	1021	2.72	cps
Antimony	121-1	1503	1337	1310	1383	7.57	cps
Arsenic	75-2	2227	2277	2384	2296	3.49	cps
Barium	135-1	1883	1984	1947	1938	2.61	cps
Barium	137-1	3347	3217	3337	3300	2.19	cps
Beryllium	9-1	-129	-103	-119	-117	-11.20	cps
Bismuth	209-1	6724421	6336734	6502531	6521229	2.98	cps
Bismuth	209-2	3165866	3159085	3200656	3175202	0.70	cps
Bromine	81-1	40458	38149	38312	38973	3.31	cps
Cadmium	108-1	37	23	40	33	26.47	cps
Cadmium	106-1	7455	7089	6982	7175	3.46	cps
Cadmium	111-1	5250	4996	4899	5048	3.59	cps
Calcium	43-1	100213	94165	94269	96216	3.60	cps
Calcium	44-1	2043579	1920197	1970478	1978084	3.14	cps
Carbon	12-1	1467241418	1427143712	1403866859	1432750663	2.24	cps
Carbon	12-2	8921873	8834822	8645277	8800657	1.61	cps
Chlorine	35-1	756191	753349	759076	756205	0.38	cps
Chlorine	35-2	4621	4137	4291	4350	5.68	cps
Chromium	52-2	15005	14754	14874	14878	0.84	cps
Cobalt	59-2	2014	1840	1850	1901	5.12	cps
Copper	63-2	4594	4641	4481	4572	1.80	cps
Dysprosium	156-1	10	10	10	10	0.00	cps
Dysprosium	156-2	3	3	3	3	0.00	cps
Erbium	164-1	93	80	50	74	29.81	cps
Erbium	164-2	23	27	17	22	22.91	cps
Gadolinium	160-1	120	143	83	116	26.18	cps
Gadolinium	160-2	30	30	30	30	0.00	cps
Holmium	165-1	11586098	11240926	10894652	11240558	3.08	cps
Holmium	165-2	4623647	4663693	4586371	4624570	0.84	cps
Indium	115-1	10487830	10148426	10175690	10270649	1.84	cps
Indium	115-2	1274582	1269443	1269608	1271211	0.23	cps
Iron	54-2	1805693	1780647	1751291	1779210	1.53	cps
Iron	56-2	32415101	31998723	31362217	31925347	1.66	cps
Iron	57-2	763871	754979	756457	758436	0.63	cps
Krypton	83-1	440	423	433	432	1.94	cps
Lead	206-1	2274	1970	2204	2149	7.39	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-01DL3X50 Instrumnet Name : P8
Client Sample ID : 32725DL Dilution Factor : 50
Date & Time Acquired : 2025-04-07 14:39:54 DataFile Name : 045AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	1827	1813	1870	1837	1.61	cps
Lead	208-1	8915	8098	8441	8485	4.83	cps
Lithium	6-1	4351627	4103665	4142301	4199198	3.18	cps
Magnesium	24-2	100574	99933	99507	100005	0.54	cps
Manganese	55-2	656127	653381	646268	651925	0.78	cps
Molybdenum	94-1	4274	3954	4031	4086	4.09	cps
Molybdenum	95-1	1803	1707	1727	1746	2.92	cps
Molybdenum	96-1	2804	2614	2650	2689	3.75	cps
Molybdenum	97-1	1090	1017	1063	1057	3.51	cps
Molybdenum	98-1	2634	2484	2617	2578	3.19	cps
Neodymium	150-1	20	10	27	19	44.42	cps
Neodymium	150-2	0	3	0	1	173.21	cps
Nickel	60-2	3777	3874	4031	3894	3.28	cps
Phosphorus	31-2	323	283	263	290	10.53	cps
Potassium	39-2	467902	474491	468743	470379	0.76	cps
Rhodium	103-1	10517493	9863084	9967307	10115961	3.48	cps
Rhodium	103-2	4515391	4575233	4440532	4510385	1.50	cps
Scandium	45-1	7962046	7464992	7320659	7582566	4.44	cps
Scandium	45-2	190509	188828	192171	190503	0.88	cps
Selenium	82-1	1650	1814	1884	1782	6.72	cps
Selenium	77-2	40	40	40	40	0.00	cps
Selenium	78-2	153	193	203	183	14.43	cps
Silicon	28-1	8134058	7800575	7900167	7944933	2.15	cps
Silver	107-1	227	170	213	203	14.57	cps
Silver	109-1	107	110	157	124	22.46	cps
Sodium	23-2	2081156	2047179	2011644	2046660	1.70	cps
Strontium	86-1	23286	21754	21881	22307	3.81	cps
Strontium	88-1	194284	183666	184577	187509	3.14	cps
Sulfur	34-1	962580	913160	926496	934079	2.74	cps
Terbium	159-1	11960266	11626374	11469474	11685371	2.15	cps
Terbium	159-2	4541611	4471153	4464639	4492468	0.95	cps
Thallium	203-1	700	557	623	627	11.45	cps
Thallium	205-1	1477	1407	1347	1410	4.61	cps
Tin	118-1	5331	5034	5041	5135	3.30	cps
Titanium	47-1	757	800	717	758	5.50	cps
Uranium	238-1	123	147	190	153	22.06	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-01DL3X50 Instrumnet Name : P8
Client Sample ID : 32725DL Dilution Factor : 50
Date & Time Acquired : 2025-04-07 14:39:54 DataFile Name : 045AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	187	160	160	169	9.12	cps
Ytterbium	172-1	107	67	77	83	24.98	cps
Ytterbium	172-2	20	17	10	16	32.73	cps
Ytterbium	176-1	1637	1503	1587	1576	4.28	cps
Ytterbium	176-2	380	360	390	377	4.06	cps
Yttrium	89-1	19987878	18907901	19240098	19378625	2.85	cps
Yttrium	89-2	1860771	1826090	1816441	1834434	1.27	cps
Zinc	66-2	9510	10050	9757	9772	2.77	cps
Zirconium	90-1	9050	8820	8756	8875	1.74	cps
Zirconium	91-1	1877	1830	1910	1872	2.15	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-02DL3X50 Instrumnet Name : P8
Client Sample ID : 32525DL Dilution Factor : 50
Date & Time Acquired : 2025-04-07 14:43:27 DataFile Name : 046AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	2354	2224	2354	2310	3.25	cps
Antimony	121-1	1483	1340	1460	1428	5.39	cps
Arsenic	75-2	2484	2494	2617	2531	2.93	cps
Barium	135-1	3674	3387	3537	3533	4.06	cps
Barium	137-1	5971	5745	5918	5878	2.02	cps
Beryllium	9-1	-41	-37	-40	-39	-4.79	cps
Bismuth	209-1	6634066	6554187	6632639	6606964	0.69	cps
Bismuth	209-2	3327302	3245066	3281158	3284508	1.25	cps
Bromine	81-1	39379	40050	40184	39871	1.08	cps
Cadmium	108-1	33	47	27	36	28.64	cps
Cadmium	106-1	7015	7172	6945	7044	1.65	cps
Cadmium	111-1	4921	5054	4910	4962	1.62	cps
Calcium	43-1	60704	61464	61678	61282	0.84	cps
Calcium	44-1	1497966	1474799	1496324	1489696	0.87	cps
Carbon	12-1	1796341787	1824565999	1824805359	1815237715	0.90	cps
Carbon	12-2	11635166	11685738	11482355	11601086	0.91	cps
Chlorine	35-1	590296	595127	596125	593849	0.52	cps
Chlorine	35-2	3464	3447	3340	3417	1.96	cps
Chromium	52-2	16657	16089	15485	16077	3.64	cps
Cobalt	59-2	603	640	687	643	6.49	cps
Copper	63-2	5028	4981	4924	4978	1.04	cps
Dysprosium	156-1	83	67	77	76	11.10	cps
Dysprosium	156-2	30	33	37	33	10.01	cps
Erbium	164-1	137	97	127	120	17.35	cps
Erbium	164-2	33	40	43	39	13.09	cps
Gadolinium	160-1	130	170	137	146	14.72	cps
Gadolinium	160-2	57	40	30	42	31.91	cps
Holmium	165-1	11396450	11249778	11342472	11329566	0.65	cps
Holmium	165-2	4842498	4824895	4729988	4799127	1.26	cps
Indium	115-1	10571823	10405950	10712270	10563348	1.45	cps
Indium	115-2	1316452	1321895	1328654	1322334	0.46	cps
Iron	54-2	1803926	1760924	1781026	1781959	1.21	cps
Iron	56-2	32785285	31696761	32086514	32189520	1.71	cps
Iron	57-2	773278	776611	765128	771672	0.77	cps
Krypton	83-1	507	403	393	434	14.44	cps
Lead	206-1	3891	3871	3791	3851	1.37	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-02DL3X50 Instrumnet Name : P8
Client Sample ID : 32525DL Dilution Factor : 50
Date & Time Acquired : 2025-04-07 14:43:27 DataFile Name : 046AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	3491	3557	3224	3424	5.15	cps
Lead	208-1	15537	15334	14787	15219	2.55	cps
Lithium	6-1	4162343	4174978	4257361	4198227	1.23	cps
Magnesium	24-2	83135	83937	82891	83321	0.66	cps
Manganese	55-2	676159	666079	661253	667830	1.14	cps
Molybdenum	94-1	3457	3891	3914	3754	6.85	cps
Molybdenum	95-1	1567	1480	1723	1590	7.76	cps
Molybdenum	96-1	2397	2624	2454	2491	4.74	cps
Molybdenum	97-1	873	893	930	899	3.20	cps
Molybdenum	98-1	2404	2487	2364	2418	2.60	cps
Neodymium	150-1	70	113	60	81	34.96	cps
Neodymium	150-2	37	20	27	28	30.20	cps
Nickel	60-2	4244	4184	3981	4136	3.34	cps
Phosphorus	31-2	240	267	260	256	5.43	cps
Potassium	39-2	63097	64272	62819	63396	1.22	cps
Rhodium	103-1	10268103	10196258	10515946	10326769	1.62	cps
Rhodium	103-2	4739725	4646662	4594871	4660419	1.57	cps
Scandium	45-1	7772339	7798654	7604315	7725102	1.36	cps
Scandium	45-2	197050	199841	197941	198277	0.72	cps
Selenium	82-1	1667	2107	2190	1988	14.15	cps
Selenium	77-2	67	57	30	51	37.09	cps
Selenium	78-2	203	243	193	213	12.40	cps
Silicon	28-1	9585739	9778149	9878917	9747602	1.53	cps
Silver	107-1	193	207	203	201	3.45	cps
Silver	109-1	90	133	113	112	19.33	cps
Sodium	23-2	1195842	1227006	1197644	1206831	1.45	cps
Strontium	86-1	15038	14921	15465	15142	1.89	cps
Strontium	88-1	127152	127331	126849	127111	0.19	cps
Sulfur	34-1	918616	921424	878844	906295	2.63	cps
Terbium	159-1	11921698	11833066	11931562	11895442	0.46	cps
Terbium	159-2	4674479	4701377	4753988	4709948	0.86	cps
Thallium	203-1	527	487	487	500	4.62	cps
Thallium	205-1	1277	1163	1150	1197	5.82	cps
Tin	118-1	5858	5711	5955	5841	2.10	cps
Titanium	47-1	1217	1363	1240	1273	6.19	cps
Uranium	238-1	223	220	303	249	18.96	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-02DL3X50 Instrumnet Name : P8
Client Sample ID : 32525DL Dilution Factor : 50
Date & Time Acquired : 2025-04-07 14:43:27 DataFile Name : 046AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	203	267	227	232	13.79	cps
Ytterbium	172-1	80	73	73	76	5.10	cps
Ytterbium	172-2	50	37	33	40	22.05	cps
Ytterbium	176-1	1707	1490	1530	1576	7.32	cps
Ytterbium	176-2	350	387	473	403	15.70	cps
Yttrium	89-1	20013272	19827486	19948471	19929743	0.47	cps
Yttrium	89-2	1893459	1896370	1924628	1904819	0.90	cps
Zinc	66-2	4861	5184	5218	5088	3.87	cps
Zirconium	90-1	7686	7939	8002	7876	2.13	cps
Zirconium	91-1	1683	1580	1763	1676	5.49	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-02DL4X100 Instrumnet Name : P8
Client Sample ID : 32525DL Dilution Factor : 100
Date & Time Acquired : 2025-04-07 14:52:05 DataFile Name : 048AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	1583	1423	1400	1469	6.79	cps
Antimony	121-1	837	753	693	761	9.46	cps
Arsenic	75-2	793	703	770	756	6.18	cps
Barium	135-1	1753	1850	1837	1813	2.89	cps
Barium	137-1	3234	3434	3074	3247	5.56	cps
Beryllium	9-1	40	30	75	49	49.25	cps
Bismuth	209-1	6605512	6753562	6608990	6656021	1.27	cps
Bismuth	209-2	3321467	3329608	3263043	3304706	1.10	cps
Bromine	81-1	37386	38606	37353	37782	1.89	cps
Cadmium	108-1	63	23	23	37	62.99	cps
Cadmium	106-1	7212	7289	7205	7235	0.64	cps
Cadmium	111-1	5051	5122	5071	5081	0.73	cps
Calcium	43-1	31952	31778	32560	32097	1.28	cps
Calcium	44-1	697241	706067	707055	703454	0.77	cps
Carbon	12-1	859788361	902659827	907366333	889938173	2.95	cps
Carbon	12-2	5779905	5805597	5836448	5807317	0.49	cps
Chlorine	35-1	529207	535612	534452	533091	0.64	cps
Chlorine	35-2	2944	3134	2944	3007	3.65	cps
Chromium	52-2	14808	15282	15041	15044	1.57	cps
Cobalt	59-2	477	527	417	473	11.64	cps
Copper	63-2	4414	4621	4271	4435	3.97	cps
Dysprosium	156-1	43	43	33	40	14.43	cps
Dysprosium	156-2	10	17	17	14	26.66	cps
Erbium	164-1	113	77	97	96	19.21	cps
Erbium	164-2	40	37	27	34	20.14	cps
Gadolinium	160-1	130	110	107	116	10.92	cps
Gadolinium	160-2	37	50	33	40	22.05	cps
Holmium	165-1	11357679	11457242	11567346	11460756	0.92	cps
Holmium	165-2	4794786	4739445	4778439	4770890	0.60	cps
Indium	115-1	10570150	10595003	10433380	10532845	0.83	cps
Indium	115-2	1319913	1315453	1318556	1317974	0.17	cps
Iron	54-2	848914	846221	822047	839061	1.76	cps
Iron	56-2	16035967	16299677	15821089	16052245	1.49	cps
Iron	57-2	383806	388837	379013	383886	1.28	cps
Krypton	83-1	467	403	387	419	10.08	cps
Lead	206-1	3084	2960	2917	2987	2.90	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-02DL4X100 Instrumnet Name : P8
Client Sample ID : 32525DL Dilution Factor : 100
Date & Time Acquired : 2025-04-07 14:52:05 DataFile Name : 048AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	2494	2317	2427	2412	3.70	cps
Lead	208-1	11565	11072	11245	11294	2.22	cps
Lithium	6-1	4210890	4195783	4174164	4193612	0.44	cps
Magnesium	24-2	41242	42442	41646	41776	1.46	cps
Manganese	55-2	333360	332784	324449	330197	1.51	cps
Molybdenum	94-1	3554	3647	3671	3624	1.70	cps
Molybdenum	95-1	1010	1103	1177	1097	7.62	cps
Molybdenum	96-1	1870	1873	1757	1833	3.62	cps
Molybdenum	97-1	640	720	717	692	6.54	cps
Molybdenum	98-1	1703	1800	1803	1769	3.21	cps
Neodymium	150-1	67	60	43	57	21.21	cps
Neodymium	150-2	20	17	27	21	24.12	cps
Nickel	60-2	4144	4084	4121	4116	0.74	cps
Phosphorus	31-2	207	240	270	239	13.26	cps
Potassium	39-2	48852	49816	48434	49034	1.44	cps
Rhodium	103-1	10470152	10213516	10238993	10307554	1.37	cps
Rhodium	103-2	4634603	4645962	4647625	4642730	0.15	cps
Scandium	45-1	7645998	7618195	7674278	7646157	0.37	cps
Scandium	45-2	197884	195917	196784	196862	0.50	cps
Selenium	82-1	800	1000	1050	950	13.92	cps
Selenium	77-2	40	13	13	22	69.30	cps
Selenium	78-2	120	123	187	143	26.21	cps
Silicon	28-1	4955819	5177309	5228311	5120480	2.83	cps
Silver	107-1	157	223	223	201	19.14	cps
Silver	109-1	123	117	87	109	17.94	cps
Sodium	23-2	612263	612115	609568	611315	0.25	cps
Strontium	86-1	7959	7856	7909	7908	0.65	cps
Strontium	88-1	64036	63380	64669	64028	1.01	cps
Sulfur	34-1	903777	952448	928247	928157	2.62	cps
Terbium	159-1	11785831	11671452	11721116	11726133	0.49	cps
Terbium	159-2	4644478	4620664	4734188	4666443	1.28	cps
Thallium	203-1	410	377	443	410	8.13	cps
Thallium	205-1	1023	993	967	994	2.85	cps
Tin	118-1	5221	5144	5088	5151	1.30	cps
Titanium	47-1	970	833	887	897	7.68	cps
Uranium	238-1	217	160	177	184	15.79	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : Q1700-02DL4X100 Instrumnet Name : P8
Client Sample ID : 32525DL Dilution Factor : 100
Date & Time Acquired : 2025-04-07 14:52:05 DataFile Name : 048AREF.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	197	137	197	177	19.61	cps
Ytterbium	172-1	50	97	87	78	31.59	cps
Ytterbium	172-2	23	57	50	43	40.71	cps
Ytterbium	176-1	1543	1613	1573	1577	2.23	cps
Ytterbium	176-2	330	390	393	371	9.60	cps
Yttrium	89-1	19486737	19622869	19500602	19536736	0.38	cps
Yttrium	89-2	1902816	1913745	1920558	1912373	0.47	cps
Zinc	66-2	4507	4581	4767	4619	2.90	cps
Zirconium	90-1	8196	8556	8039	8264	3.21	cps
Zirconium	91-1	1917	1930	1797	1881	3.90	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCV03 Instrumnet Name : P8
Client Sample ID : CCV03 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 15:00:29 DataFile Name : 050CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	8978463	8838402	8952557	8923141	0.84	cps
Antimony	121-1	16901618	17217982	17238134	17119245	1.10	cps
Arsenic	75-2	455339	460882	458023	458081	0.61	cps
Barium	135-1	20496955	20480481	21197932	20725122	1.98	cps
Barium	137-1	35423276	35343167	35366290	35377578	0.12	cps
Beryllium	9-1	4285979	4314358	4382385	4327574	1.14	cps
Bismuth	209-1	5223630	5301104	5288498	5271077	0.79	cps
Bismuth	209-2	2541882	2580635	2571304	2564607	0.79	cps
Bromine	81-1	32865	33089	32461	32805	0.97	cps
Cadmium	108-1	335567	335472	332312	334450	0.55	cps
Cadmium	106-1	473931	480971	481496	478799	0.88	cps
Cadmium	111-1	4358454	4333848	4403800	4365368	0.81	cps
Calcium	43-1	29700497	30376340	30052638	30043158	1.13	cps
Calcium	44-1	484518419	499556353	484836886	489637219	1.75	cps
Carbon	12-1	22503907	21747121	21920570	22057199	1.80	cps
Carbon	12-2	160145	160458	159484	160029	0.31	cps
Chlorine	35-1	473202	478775	483880	478619	1.12	cps
Chlorine	35-2	2990	2827	2844	2887	3.11	cps
Chromium	52-2	5051470	5056116	5101899	5069828	0.55	cps
Cobalt	59-2	8617713	8673347	8587633	8626231	0.50	cps
Copper	63-2	76261722	77820527	78160031	77414093	1.31	cps
Dysprosium	156-1	890	887	863	880	1.65	cps
Dysprosium	156-2	257	240	223	240	6.94	cps
Erbium	164-1	733	810	943	829	12.82	cps
Erbium	164-2	323	330	317	323	2.06	cps
Gadolinium	160-1	747	697	660	701	6.21	cps
Gadolinium	160-2	263	257	327	282	13.69	cps
Holmium	165-1	10095029	9964905	9974529	10011488	0.72	cps
Holmium	165-2	4151457	4193794	4169097	4171449	0.51	cps
Indium	115-1	8323499	8358700	8239506	8307235	0.74	cps
Indium	115-2	1015614	1005690	1014825	1012043	0.55	cps
Iron	54-2	48786846	49598701	49404183	49263243	0.86	cps
Iron	56-2	895197320	901200413	915970200	904122644	1.18	cps
Iron	57-2	22884151	22943661	22997845	22941886	0.25	cps
Krypton	83-1	483	483	477	481	0.80	cps
Lead	206-1	53522469	54448406	53408148	53793008	1.06	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCV03 Instrumnet Name : P8
Client Sample ID : CCV03 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 15:00:29 DataFile Name : 050CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	45611221	46259041	45410289	45760184	0.97	cps
Lead	208-1	208839875	213191489	210863539	210964967	1.03	cps
Lithium	6-1	3552529	3563818	3506882	3541076	0.85	cps
Magnesium	24-2	148682584	148603874	149719648	149002036	0.42	cps
Manganese	55-2	23716734	24051984	24117470	23962062	0.90	cps
Molybdenum	94-1	63882897	64740324	64077526	64233582	0.70	cps
Molybdenum	95-1	92439949	92705472	92447699	92531040	0.16	cps
Molybdenum	96-1	100570219	102556012	101110978	101412403	1.01	cps
Molybdenum	97-1	56847679	57846116	56562101	57085299	1.18	cps
Molybdenum	98-1	150505004	148189254	147475101	148723120	1.07	cps
Neodymium	150-1	1670	1713	1587	1657	3.89	cps
Neodymium	150-2	160	190	133	161	17.59	cps
Nickel	60-2	2367957	2379341	2383753	2377017	0.34	cps
Phosphorus	31-2	91261	92029	91751	91680	0.42	cps
Potassium	39-2	55447218	55000036	55982489	55476581	0.89	cps
Rhodium	103-1	7892699	7928552	7705075	7842108	1.53	cps
Rhodium	103-2	3604633	3628734	3549096	3594154	1.14	cps
Scandium	45-1	6450367	6463546	6392530	6435481	0.59	cps
Scandium	45-2	169017	169659	171409	170028	0.73	cps
Selenium	82-1	269766	269224	270908	269966	0.32	cps
Selenium	77-2	6728	6752	6775	6752	0.35	cps
Selenium	78-2	22658	22588	22528	22592	0.29	cps
Silicon	28-1	84412864	83464015	82374960	83417280	1.22	cps
Silver	107-1	21075659	21426741	21604916	21369105	1.26	cps
Silver	109-1	20125319	20346502	20429553	20300458	0.77	cps
Sodium	23-2	313643542	309552355	311402382	311532760	0.66	cps
Strontium	86-1	6107850	6182286	6013070	6101069	1.39	cps
Strontium	88-1	52128674	53384119	53216076	52909623	1.29	cps
Sulfur	34-1	2335748	2304917	2294088	2311584	0.94	cps
Terbium	159-1	10255742	10341961	10539351	10379018	1.40	cps
Terbium	159-2	4096912	4120434	4047112	4088153	0.92	cps
Thallium	203-1	13592846	13804899	13711470	13703072	0.78	cps
Thallium	205-1	31896294	32730590	32250880	32292588	1.30	cps
Tin	118-1	13803390	14059730	13952324	13938482	0.92	cps
Titanium	47-1	27828172	27974349	27602330	27801617	0.67	cps
Uranium	238-1	40075269	40249987	40624508	40316588	0.70	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCV03 Instrumnet Name : P8
Client Sample ID : CCV03 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 15:00:29 DataFile Name : 050CCV.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	3910523	3954160	3971951	3945545	0.80	cps
Ytterbium	172-1	1180	1147	1150	1159	1.58	cps
Ytterbium	172-2	620	557	487	554	12.03	cps
Ytterbium	176-1	69592	68754	69032	69126	0.62	cps
Ytterbium	176-2	26888	27542	27706	27378	1.58	cps
Yttrium	89-1	16873043	16933124	16551406	16785858	1.22	cps
Yttrium	89-2	1618156	1599658	1630101	1615972	0.95	cps
Zinc	66-2	8787215	8993889	8923066	8901390	1.18	cps
Zirconium	90-1	32840089	32914080	32815245	32856471	0.16	cps
Zirconium	91-1	7255921	7225739	7364918	7282193	1.01	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCB03 Instrumnet Name : P8
Client Sample ID : CCB03 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 15:13:18 DataFile Name : 051CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Aluminium	27-2	510	457	460	476	6.28	cps
Antimony	121-1	1010	823	813	882	12.56	cps
Arsenic	75-2	23	17	17	19	20.36	cps
Barium	135-1	450	473	387	437	10.27	cps
Barium	137-1	777	803	727	769	5.06	cps
Beryllium	9-1	246	259	259	255	2.89	cps
Bismuth	209-1	6563823	6545588	6325457	6478289	2.05	cps
Bismuth	209-2	3178028	3180728	3167048	3175268	0.23	cps
Bromine	81-1	34900	34997	34486	34794	0.78	cps
Cadmium	108-1	27	20	17	21	24.12	cps
Cadmium	106-1	6518	6625	6738	6627	1.66	cps
Cadmium	111-1	4654	4703	4855	4738	2.21	cps
Calcium	43-1	4061	4101	3977	4046	1.56	cps
Calcium	44-1	94903	94095	93636	94211	0.68	cps
Carbon	12-1	14835481	14524754	14617581	14659272	1.09	cps
Carbon	12-2	101072	100293	101034	100799	0.44	cps
Chlorine	35-1	366289	368396	370749	368478	0.61	cps
Chlorine	35-2	2084	1937	1970	1997	3.85	cps
Chromium	52-2	14070	13887	13947	13968	0.67	cps
Cobalt	59-2	427	453	333	404	15.58	cps
Copper	63-2	4434	4587	4374	4465	2.46	cps
Dysprosium	156-1	17	23	23	21	18.21	cps
Dysprosium	156-2	7	7	7	7	0.00	cps
Erbium	164-1	77	80	100	86	14.75	cps
Erbium	164-2	27	37	27	30	19.24	cps
Gadolinium	160-1	127	113	93	111	15.10	cps
Gadolinium	160-2	23	27	13	21	32.88	cps
Holmium	165-1	11096733	10915222	10794538	10935497	1.39	cps
Holmium	165-2	4589641	4531289	4522108	4547679	0.81	cps
Indium	115-1	10393964	10151718	10313663	10286448	1.20	cps
Indium	115-2	1256818	1256000	1257713	1256844	0.07	cps
Iron	54-2	4111	4164	4111	4128	0.75	cps
Iron	56-2	63159	62961	61810	62643	1.16	cps
Iron	57-2	1457	1450	1583	1497	5.02	cps
Krypton	83-1	377	420	367	388	7.31	cps
Lead	206-1	2930	2907	2877	2905	0.92	cps

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LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCB03 Instrumnet Name : P8
Client Sample ID : CCB03 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 15:13:18 DataFile Name : 051CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Lead	207-1	2640	2717	2224	2527	10.51	cps
Lead	208-1	11909	11772	11112	11598	3.67	cps
Lithium	6-1	4091813	4069986	4031570	4064457	0.75	cps
Magnesium	24-2	1620	1670	1803	1698	5.58	cps
Manganese	55-2	1967	2204	2187	2119	6.23	cps
Molybdenum	94-1	1777	1640	1657	1691	4.41	cps
Molybdenum	95-1	1887	1610	1700	1732	8.15	cps
Molybdenum	96-1	2294	2040	2057	2130	6.65	cps
Molybdenum	97-1	1210	1020	1060	1097	9.13	cps
Molybdenum	98-1	2854	2950	2734	2846	3.81	cps
Neodymium	150-1	10	10	17	12	31.50	cps
Neodymium	150-2	0	3	3	2	86.60	cps
Nickel	60-2	3627	3514	3500	3547	1.96	cps
Phosphorus	31-2	227	170	177	191	16.21	cps
Potassium	39-2	38150	36991	37285	37475	1.61	cps
Rhodium	103-1	9856446	9719047	9846053	9807182	0.78	cps
Rhodium	103-2	4454464	4390736	4394202	4413134	0.81	cps
Scandium	45-1	7302134	7315817	7268956	7295636	0.33	cps
Scandium	45-2	185355	182290	182264	183303	0.97	cps
Selenium	82-1	130	17	173	107	75.84	cps
Selenium	77-2	3	3	0	2	86.60	cps
Selenium	78-2	27	43	43	38	25.46	cps
Silicon	28-1	672838	659726	666280	666281	0.98	cps
Silver	107-1	647	687	540	624	12.14	cps
Silver	109-1	413	460	457	443	5.87	cps
Sodium	23-2	105461	103944	104094	104500	0.80	cps
Strontium	86-1	933	877	920	910	3.26	cps
Strontium	88-1	2567	2424	2397	2462	3.71	cps
Sulfur	34-1	810960	816853	815333	814382	0.38	cps
Terbium	159-1	11764925	11638052	11522385	11641787	1.04	cps
Terbium	159-2	4476208	4529804	4399510	4468507	1.47	cps
Thallium	203-1	747	700	730	726	3.26	cps
Thallium	205-1	1720	1640	1733	1698	2.97	cps
Tin	118-1	4711	4661	4804	4725	1.54	cps
Titanium	47-1	780	837	707	774	8.42	cps
Uranium	238-1	743	687	707	712	4.04	cps

LB Number : LB135332 Operator : Jaswal
Lab Sample ID : CCB03 Instrumnet Name : P8
Client Sample ID : CCB03 Dilution Factor : 1
Date & Time Acquired : 2025-04-07 15:13:18 DataFile Name : 051CCBE.d

Parameter	Mass	CPS1	CPS2	CPS3	CPSMean	CPSRSD	Units
Vanadium	51-2	123	117	100	113	10.61	cps
Ytterbium	172-1	53	47	87	62	34.44	cps
Ytterbium	172-2	20	13	23	19	26.96	cps
Ytterbium	176-1	1403	1547	1533	1495	5.30	cps
Ytterbium	176-2	377	433	367	392	9.17	cps
Yttrium	89-1	19292136	18766538	18727444	18928706	1.67	cps
Yttrium	89-2	1793813	1788054	1745707	1775858	1.48	cps
Zinc	66-2	4204	4214	4194	4204	0.24	cps
Zirconium	90-1	1590	1490	1610	1563	4.11	cps
Zirconium	91-1	287	310	323	307	6.05	cps

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SOP ID : M3010A-Digestion-17

SDG No : N/A

Matrix : WATER

Pipette ID : ICP A

Balance ID : N/A

Filter paper ID : N/A

pH Strip ID : M6069

Hood ID : #3

Block ID: 1. HOT BLOCK #1

2. N/A

Start Digest Date: 04/04/2025 Time : 12:05 Temp : 96 °C

End Digest Date: 04/04/2025 Time : 14:10 Temp : 96 °C

Digestion tube ID: M5595

Block thermometer ID: MET-DIG. #1

Dig Technician Signature: *SLB*

Supervisor Signature: *[Signature]*

Temp : 1. 96°C 2. N/A

Standard Name	MLS USED	STD REF. # FROM LOG
Spike Sol 1	0.50	MP85065
Spike Sol 2	1.00	MP85066
Spike Sol 3	1.00	MP85067
Spike Sol 4	1.00	MP85068
N/A	N/A	N/A

Chemical Used	ML/SAMPLE USED	Lot Number
Conc. HNO3	3.00	M6158
1:1 HCL	5.00	MP84720
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A
N/A	N/A	N/A

Extraction Conformance/Non-Conformance Comments:

HOT BLOCK#1 CELL#50 96C

Date / Time	Prepped Sample Relinquished By/Location	Received By/Location
04/04/25 15:10	<i>SLB, met.dig</i>	<i>[Signature]</i>
	Preparation Group	Analysis Group

Lab Sample ID	Client Sample ID	pH	Initial Vol (ml)	Final Vol (ml)	Color Before	Color After	Clarity Before	Clarity After	Comment	Prep Pos
PB167465BL	PBW465	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	1
PB167465BS	LCS465	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	2
Q1711-01DUP	MW-18B-56-040225DUP	<2	50	50	Colorless	Colorless	Clear	Clear	MP85065,MP85066,MP85067,N	3
Q1711-01	MW-18B-56-040225	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	4
Q1711-02	Q1711-01MS	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	5
Q1711-03	Q1711-01MSD	<2	50	50	Colorless	Colorless	Clear	Clear	MP85065,MP85066,MP85067,N	6
Q1711-04	MW-17B-55-040225	<2	50	50	Colorless	Colorless	Clear	Clear	MP85065,MP85066,MP85067,N	7
Q1711-08	EB01-040225	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	8
Q1711-12	MW-17B-55-040225	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	9
Q1711-13	EB01-040225	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	10
Q1711-14	MW-18B-56-040225	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	11
Q1711-14DUP	MW-18B-56-040225DUP	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	12
Q1711-15	Q1711-14MS	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	13
Q1711-16	Q1711-14MSD	<2	50	50	Colorless	Colorless	Clear	Clear	MP85065,MP85066,MP85067,N	14
Q1731-05	EB01-040325	<2	50	50	Colorless	Colorless	Clear	Clear	MP85065,MP85066,MP85067,N	15
Q1731-06	EB01-040325	<2	50	50	Colorless	Colorless	Clear	Clear	N/A	16

WORKLIST(Hardcopy Internal Chain)

Worklist Name : PB167465

Worklist ID : 188737

Department : Digestion

Date : 04-04-2025 09:43:14

Sample	Customer Sample	Matrix	Test	Preservative	Customer	Raw Sample Storage Location	Collect Date	Method
Q1711-01	MW-18B-56-040225	Water	Metals Group4	1:1 HNO3 to pH < 2	JACO05	I41	04/02/2025	6020B
Q1711-02	Q1711-01MS	Water	Metals Group4	1:1 HNO3 to pH < 2	JACO05	I41	04/02/2025	6020B
Q1711-03	Q1711-01MSD	Water	Metals Group4	1:1 HNO3 to pH < 2	JACO05	I41	04/02/2025	6020B
Q1711-04	MW-17B-55-040225	Water	Metals Group4	1:1 HNO3 to pH < 2	JACO05	I41	04/02/2025	6020B
Q1711-08	EB01-040225	Water	Metals Group4	1:1 HNO3 to pH < 2	JACO05	I41	04/02/2025	6020B
Q1711-12	MW-17B-55-040225	Water	Dissolved ICP-Group2	1:1 HNO3 to pH < 2	JACO05	L21	04/02/2025	6020B
Q1711-13	EB01-040225	Water	Dissolved ICP-Group2	1:1 HNO3 to pH < 2	JACO05	L21	04/02/2025	6020B
Q1711-14	MW-18B-56-040225	Water	Dissolved ICP-Group2	1:1 HNO3 to pH < 2	JACO05	L21	04/02/2025	6020B
Q1711-15	Q1711-14MS	Water	Dissolved ICP-Group2	1:1 HNO3 to pH < 2	JACO05	I41	04/02/2025	6020B
Q1711-16	Q1711-14MSD	Water	Dissolved ICP-Group2	1:1 HNO3 to pH < 2	JACO05	I41	04/02/2025	6020B
Q1731-05	EB01-040325	Water	Metals Group4	1:1 HNO3 to pH < 2	JACO05	L31	04/03/2025	6020B
Q1731-06	EB01-040325	Water	Dissolved ICP-Group2	Cool 4 deg C	JACO05	L31	04/03/2025	6020B

Date/Time 04/04/25 11:40

Raw Sample Received by: S.B. Met. d19

Raw Sample Relinquished by: S.B. Met. d19

Date/Time 04/04/25 12:40

Raw Sample Received by: S.B. Met. d19

Raw Sample Relinquished by: S.B. Met. d19

Instrument ID: P7

Daily Analysis Runlog For Sequence/QC Batch ID # LB135315

Review By	jaswal	Review On	4/9/2025 11:42:35 AM
Supervise By	mohan	Supervise On	4/9/2025 11:59:16 AM
STD. NAME	STD REF.#		
ICAL Standard	MP84981,MP84989,MP84988,MP84986,MP84985,MP84984,MP84983,MP84980,MP84982		
ICV Standard	MP84990		
CCV Standard	MP84992		
ICSA Standard	MP84993,MP84996		
CRI Standard	MP84988		
LCS Standard			
Chk Standard	MP84998,MP84999		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	TUNE	TUNE	TUNE	04/04/25 12:54		Jaswal	OK
2	S0	S0	CAL1	04/04/25 14:09		Jaswal	OK
3	S2	S2	CAL3	04/04/25 14:15		Jaswal	OK
4	S3	S3	CAL4	04/04/25 14:19		Jaswal	OK
5	S4	S4	CAL5	04/04/25 14:22		Jaswal	OK
6	S5	S5	CAL6	04/04/25 14:25		Jaswal	OK
7	S6	S6	CAL7	04/04/25 14:28		Jaswal	OK
8	S7	S7	CAL8	04/04/25 14:31		Jaswal	OK
9	S8	S8	CAL9	04/04/25 14:33		Jaswal	OK
10	ICV01	ICV01	ICV	04/04/25 14:58		Jaswal	OK
11	LLICV	LLICV	LLICV	04/04/25 15:17		Jaswal	OK
12	ICB01	ICB01	ICB	04/04/25 15:20		Jaswal	OK
13	ICSA01	ICSA01	ICSA	04/04/25 15:24		Jaswal	OK
14	ICSAB01	ICSAB01	ICSAB	04/04/25 15:27		Jaswal	OK
15	CCV01	CCV01	CCV	04/04/25 15:30		Jaswal	OK
16	CCB01	CCB01	CCB	04/04/25 15:33		Jaswal	OK
17	CRI	CRI	CRDL	04/04/25 15:37		Jaswal	OK
18	PB167465BL	PB167465BL	MB	04/04/25 15:40		Jaswal	OK

Instrument ID: P7

Daily Analysis Runlog For Sequence/QC Batch ID # LB135315

Review By	jaswal	Review On	4/9/2025 11:42:35 AM
Supervise By	mohan	Supervise On	4/9/2025 11:59:16 AM

STD. NAME	STD REF.#
ICAL Standard	MP84981,MP84989,MP84988,MP84986,MP84985,MP84984,MP84983,MP84980,MP84982
ICV Standard	MP84990
CCV Standard	MP84992
ICSA Standard	MP84993,MP84996
CRI Standard	MP84988
LCS Standard	
Chk Standard	MP84998,MP84999

19	PB167465BS	PB167465BS	LCS	04/04/25 15:43		Jaswal	OK
20	Q1711-01	MW-18B-56-040225	SAM	04/04/25 15:46		Jaswal	OK
21	Q1711-01DUP	MW-18B-56-040225D	DUP	04/04/25 15:49		Jaswal	OK
22	Q1711-01L	MW-18B-56-040225L	SD	04/04/25 15:53		Jaswal	OK
23	Q1711-02	MW-18B-56-040225M	MS	04/04/25 15:56		Jaswal	OK
24	Q1711-03	MW-18B-56-040225M	MSD	04/04/25 15:59		Jaswal	OK
25	Q1711-01A	MW-18B-56-040225A	PS	04/04/25 16:02	0.1ml each mp85065,mp85069,0.2ml each mp85066,mp85067,mp850 68-10ml sample	Jaswal	OK
26	CCV02	CCV02	CCV	04/04/25 16:10		Jaswal	OK
27	CCB02	CCB02	CCB	04/04/25 16:15		Jaswal	OK
28	Q1711-04	MW-17B-55-040225	SAM	04/04/25 16:18		Jaswal	OK
29	Q1711-08	EB01-040225	SAM	04/04/25 16:21		Jaswal	OK
30	CCV03	CCV03	CCV	04/04/25 16:24		Jaswal	OK
31	CCB03	CCB03	CCB	04/04/25 16:28		Jaswal	OK

Instrument ID: P8

Daily Analysis Runlog For Sequence/QC Batch ID # LB135332

Review By	jaswal	Review On	4/9/2025 11:54:31 AM
Supervise By	mohan	Supervise On	4/9/2025 12:00:20 PM
STD. NAME	STD REF.#		
ICAL Standard	MP84981,MP84989,MP84988,MP84986,MP84985,MP84984,MP84983,MP84980,MP84982		
ICV Standard	MP84990		
CCV Standard	MP84992		
ICSA Standard	MP84993,MP84996		
CRI Standard	MP84988		
LCS Standard			
Chk Standard	MP84998,MP84999		

Sr#	SampleId	ClientID	QcType	Date	Comment	Operator	Status
1	TUNE	TUNE	TUNE	04/07/25 10:31		Jaswal	OK
2	S0	S0	CAL1	04/07/25 11:29		Jaswal	OK
3	S2	S2	CAL3	04/07/25 11:36		Jaswal	OK
4	S3	S3	CAL4	04/07/25 11:39		Jaswal	OK
5	S4	S4	CAL5	04/07/25 11:42		Jaswal	OK
6	S5	S5	CAL6	04/07/25 11:45		Jaswal	OK
7	S6	S6	CAL7	04/07/25 11:48		Jaswal	OK
8	S7	S7	CAL8	04/07/25 11:51		Jaswal	OK
9	S8	S8	CAL9	04/07/25 11:54		Jaswal	OK
10	ICV01	ICV01	ICV	04/07/25 12:40		Jaswal	OK
11	LLICV	LLICV	LLICV	04/07/25 12:44		Jaswal	OK
12	ICB01	ICB01	ICB	04/07/25 12:48		Jaswal	OK
13	ICSA01	ICSA01	ICSA	04/07/25 12:57		Jaswal	OK
14	ICSAB01	ICSAB01	ICSAB	04/07/25 13:04		Jaswal	OK
15	CCV01	CCV01	CCV	04/07/25 13:07		Jaswal	OK
16	CCB01	CCB01	CCB	04/07/25 13:17		Jaswal	OK
17	CRI	CRI	CRDL	04/07/25 13:20		Jaswal	OK
18	Q1711-12	MW-17B-55-040225	SAM	04/07/25 13:24		Jaswal	OK

Instrument ID: P8

Daily Analysis Runlog For Sequence/QC Batch ID # LB135332

Review By	jaswal	Review On	4/9/2025 11:54:31 AM
Supervise By	mohan	Supervise On	4/9/2025 12:00:20 PM

STD. NAME	STD REF.#
ICAL Standard	MP84981,MP84989,MP84988,MP84986,MP84985,MP84984,MP84983,MP84980,MP84982
ICV Standard	MP84990
CCV Standard	MP84992
ICSA Standard	MP84993,MP84996
CRI Standard	MP84988
LCS Standard	
Chk Standard	MP84998,MP84999

19	Q1711-13	EB01-040225	SAM	04/07/25 13:27		Jaswal	OK
20	Q1711-14	MW-18B-56-040225	SAM	04/07/25 13:30		Jaswal	OK
21	Q1711-14DUP	MW-18B-56-040225D	DUP	04/07/25 13:33		Jaswal	OK
22	Q1711-14L	MW-18B-56-040225L	SD	04/07/25 13:37		Jaswal	OK
23	Q1711-15	MW-18B-56-040225M	MS	04/07/25 13:40		Jaswal	OK
24	Q1711-16	MW-18B-56-040225M	MSD	04/07/25 13:43		Jaswal	OK
25	CCV02	CCV02	CCV	04/07/25 13:58		Jaswal	OK
26	CCB02	CCB02	CCB	04/07/25 14:05		Jaswal	OK
27	Q1711-14A	MW-18B-56-040225A	PS	04/07/25 14:08	0.1ml each mp85065,mp85069,0.2ml each mp85066,mp85067,mp850 68-10ml sample	Jaswal	OK
28	Q1731-05	EB01-040325	SAM	04/07/25 14:11		Jaswal	OK
29	Q1731-06	EB01-040325	SAM	04/07/25 14:14		Jaswal	OK
30	Q1700-01DL	32725DL	SAM	04/07/25 14:18	INT_STD 6Li,45Sc(1&2) Fail	Jaswal	Dilution
31	Q1700-02DL	32525DL	SAM	04/07/25 14:21	INT_STD 6Li,45Sc(1&2),89Y(1&2) Fail	Jaswal	Dilution
32	Q1700-01DL2	32725DL2	SAM	04/07/25 14:33	25X For INT_STD 6Li,45Sc(1&2), Still INT_STD 45Sc(2) Fail	Jaswal	Dilution
33	Q1700-02DL2	32525DL2	SAM	04/07/25 14:36	25X For INT_STD 6Li,45Sc(1&2),89Y(1&2) , Still INT_STD 6Li,45Sc(1&2),89Y(2) Fail	Jaswal	Dilution

Instrument ID: P8

Daily Analysis Runlog For Sequence/QC Batch ID # LB135332

Review By	jaswal	Review On	4/9/2025 11:54:31 AM
Supervise By	mohan	Supervise On	4/9/2025 12:00:20 PM

STD. NAME	STD REF.#
ICAL Standard	MP84981,MP84989,MP84988,MP84986,MP84985,MP84984,MP84983,MP84980,MP84982
ICV Standard	MP84990
CCV Standard	MP84992
ICSA Standard	MP84993,MP84996
CRI Standard	MP84988
LCS Standard	
Chk Standard	MP84998,MP84999

34	Q1700-01DL3	32725DL	SAM	04/07/25 14:39	50X For INT_STD 45Sc(2)	Jaswal	Confirms
35	Q1700-02DL3	32525DL	SAM	04/07/25 14:43	50X For INT_STD 6Li,45Sc(1&2),89Y(2)	Jaswal	Confirms
36	Q1700-02DL4	32525DL	SAM	04/07/25 14:52	Not Rerquired	Jaswal	Not Ok
37	CCV03	CCV03	CCV	04/07/25 15:00		Jaswal	OK
38	CCB03	CCB03	CCB	04/07/25 15:13		Jaswal	OK

Prep Standard - Chemical Standard Summary

Order ID : Q1731

Test : Dissolved ICP-Group2, Metals Group4

Prepbatch ID : PB167465,

Sequence ID/Qc Batch ID: LB135315, LB135332, LB135332,

Standard ID :

MP84720, MP84980, MP84981, MP84982, MP84983, MP84984, MP84985, MP84986, MP84987, MP84988, MP84989, MP84990, MP84992, MP84993, MP84996, MP84997, MP84998, MP84999, MP85065, MP85066, MP85067, MP85068,

Chemical ID :

M4888, M5305, M5472, M5519, M5520, M5545, M5658, M5739, M5751, M5798, M5799, M5800, M5801, M5811, M5815, M5817, M5873, M5874, M5942, M5961, M5962, M5977, M5981, M5983, M6019, M6020, M6021, M6023, M6025, M6026, M6028, M6030, M6032, M6055, M6058, M6079, M6086, M6127, M6128, M6137, M6144, M6145, M6146, M6150, M6151, M6153, M6156, M6158, M6159, W3112,

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
170	1:1HCL	MP84720	03/03/2025	04/04/2025	Sagar Kanani	None	METALS_PIPETTE_1 (ICP A)	Sarabjit Jaswal 03/03/2025

FROM 1000.00000ml of M6151 + 1000.00000ml of W3112 = Final Quantity: 2000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3947	S7(SFAM,6020,200.8)	MP84980	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 1.00000ml of M5799 + 1.00000ml of M5981 + 1.00000ml of M6079 + 1.00000ml of M6137 + 1.00000ml of M6153 + 1.90000ml of M6159 + 10.00000ml of M5942 + 10.00000ml of M5977 + 10.00000ml of M6158 + 2.00000ml of M5815 + 2.00000ml of M5817 + 4.00000ml of M6025 + 4.00000ml of M6032 + 4.90000ml of M5519 + 4.90000ml of M5811 + 5.00000ml of M6151 + 50.00000ml of M5305 + 829.60000ml of W3112 + 9.00000ml of M5751 + 9.00000ml of M6128 + 9.00000ml of M6145 + 9.90000ml of M6086 + 9.90000ml of M6127 + 9.90000ml of M6144 = Final Quantity: 1000.000 ml

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1122	ICPMS CALIB BLANK(S0/ICB/CCB)	MP84981	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIP ETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 25.00000ml of M6151 + 4925.00000ml of W3112 + 50.00000ml of M6158 = Final Quantity: 5000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
2902	S8 ICPMS	MP84982	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIP ETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 1.00000ml of M6159 + 2.50000ml of M5520 + 2.50000ml of M5811 + 5.00000ml of M6086 + 5.00000ml of M6127 + 5.00000ml of M6144 + 79.00000ml of MP84981 = Final Quantity: 100.000 ml

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3948	S6(SFAM,6020,200.8)	MP84983	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6158 + 48.50000ml of W3112 + 50.00000ml of MP84980 = Final Quantity: 100.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3949	S5(SFAM,6020,200.8)	MP84984	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6158 + 73.50000ml of W3112 + 25.00000ml of MP84980 = Final Quantity: 100.000 ml

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3954	S4(SFAM,6020,200.8)	MP84985	03/25/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6158 + 86.00000ml of W3112 + 12.50000ml of MP84980 = Final Quantity: 100.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3951	S3(SFAM, 6020,200.8)	MP84986	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6158 + 88.50000ml of W3112 + 10.00000ml of MP84983 = Final Quantity: 100.000 ml

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3955	S2CONC(SFAM,6020,200.8)	MP84987	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 0.00500ml of M6153 + 0.05000ml of M5798 + 0.05000ml of M5800 + 0.05000ml of M5801 + 0.05000ml of M5961 + 0.05000ml of M5981 + 0.05000ml of M6023 + 0.05000ml of M6025 + 0.05000ml of M6028 + 0.05000ml of M6030 + 0.05000ml of M6079 + 0.05000ml of M6128 + 0.10000ml of M5658 + 0.10000ml of M5751 + 0.10000ml of M6146 + 0.10000ml of M6159 + 0.25000ml of M5799 + 0.25000ml of M5811 + 0.25000ml of M5942 + 0.25000ml of M5962 + 0.25000ml of M5977 + 0.25000ml of M6021 + 0.25000ml of M6145 + 0.50000ml of M6032 + 0.50000ml of M6137 + 1.25000ml of M5815 + 1.25000ml of M5817 + 1.25000ml of M6151 + 2.50000ml of M5520 + 2.50000ml of M6086 + 2.50000ml of M6127 + 2.50000ml of M6144 + 2.50000ml of M6158 + 230.04500ml of W3112 = Final Quantity: 250.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3956	S2(SFAM,6020,200.8)	MP84988	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6158 + 98.00000ml of W3112 + 0.50000ml of MP84987 = Final Quantity: 100.000 ml

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3957	S1(SFAM,6020,200.8)	MP84989	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 0.50000ml of M6151 + 1.00000ml of M6158 + 88.50000ml of W3112 + 10.00000ml of MP84988 = Final Quantity: 100.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3959	ICV(6020,200.8)	MP84990	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 0.05000ml of M5983 + 0.05000ml of M6019 + 0.05000ml of M6020 + 0.05000ml of M6058 + 0.45000ml of M5545 + 0.45000ml of M6156 + 2.00000ml of M6150 + 96.90000ml of MP84981 = Final Quantity: 100.000 ml

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3961	CCV	MP84992	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 0.20000ml of M6026 + 0.50000ml of M5799 + 0.50000ml of M5981 + 0.50000ml of M6079 + 0.50000ml of M6137 + 1.00000ml of M5815 + 1.00000ml of M5817 + 1.25000ml of M6153 + 10.00000ml of M6158 + 12.45000ml of M5520 + 12.45000ml of M5811 + 2.00000ml of M6032 + 24.95000ml of M6086 + 24.95000ml of M6127 + 24.95000ml of M6144 + 25.00000ml of M5305 + 4.50000ml of M5751 + 4.50000ml of M6128 + 4.50000ml of M6145 + 4.95000ml of M6159 + 5.00000ml of M6151 + 5.50000ml of M5942 + 5.50000ml of M5977 + 823.35000ml of W3112 = Final Quantity: 1000.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1142	ICSA ICPMS	MP84993	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 10.00000ml of M5873 + 90.00000ml of MP84981 = Final Quantity: 100.000 ml

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
1143	ICSAB ICPMS	MP84996	03/25/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 0.00500ml of M5983 + 0.00500ml of M6019 + 0.00500ml of M6020 + 0.00500ml of M6058 + 10.00000ml of M5873 + 10.00000ml of M5874 + 79.98000ml of MP84981 = Final Quantity: 100.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3962	MG 10PPM FOR TUNE	MP84997	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 0.01000ml of M6127 + 9.99000ml of MP84981 = Final Quantity: 100.000 ml

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3894	TUNE 200PPB	MP84998	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 2.00000ml of M6055 + 2.00000ml of MP84997 + 96.00000ml of MP84981 = Final Quantity: 100.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3903	ISS 3PPM	MP84999	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 5.00000ml of M6158 + 75.00000ml of M5739 + 170.00000ml of MP84981 = Final Quantity: 250.000 ml

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3880	M&B SPIKE-1	MP85065	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 5.00000ml of M5472 + 5.00000ml of M5658 + 5.00000ml of M5798 + 5.00000ml of M5800 + 5.00000ml of M5961 + 5.00000ml of M5962 + 5.00000ml of M5981 + 5.00000ml of M6021 + 5.00000ml of M6023 + 5.00000ml of M6028 + 5.00000ml of M6030 + 5.00000ml of M6079 + 5.00000ml of M6146 + 35.00000ml of MP84981 = Final Quantity: 100.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3881	M&B SPIKE-2	MP85066	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 10.00000ml of M4888 + 10.00000ml of M5977 + 12.50000ml of M5520 + 12.50000ml of M5811 + 12.50000ml of M6032 + 2.50000ml of M5799 + 2.50000ml of M6137 + 5.00000ml of M6159 + 32.50000ml of MP84981 = Final Quantity: 100.000 ml

Metals STANDARD PREPARATION LOG

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3882	M&B SPIKE-3	MP85067	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 0.62500ml of M6026 + 12.50000ml of M5751 + 12.50000ml of M6128 + 12.50000ml of M6145 + 11.87500ml of MP84981 =
Final Quantity: 50.000 ml

<u>Recipe ID</u>	<u>NAME</u>	<u>NO.</u>	<u>Prep Date</u>	<u>Expiration Date</u>	<u>Prepared By</u>	<u>ScaleID</u>	<u>PipetteID</u>	<u>Supervised By</u>
3900	M&B SPIKE-4	MP85068	03/24/2025	04/14/2025	Janvi Patel	None	METALS_PIPETTE_3 (A)	Sarabjit Jaswal 04/07/2025

FROM 6.25000ml of M6086 + 6.25000ml of M6127 + 6.25000ml of M6144 + 6.25000ml of MP84981 = Final Quantity: 25.000 ml

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57022 / Ti, 1000 PPM, 125 ml	070721	09/27/2025	08/06/2021 / jaswal	08/05/2021 / jaswal	M4888

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	6020CAL-1 / Calibration Standard Method 6020	S2-MEB711244	10/20/2026	03/07/2025 / JANVI	04/01/2022 / jaswal	M5305

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57038 / Sr, 1000 PPM, 125 ml	082922	08/29/2025	01/14/2025 / Jaswal	03/16/2023 / jaswal	M5472

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57119 / Potassium (K) 10,000PPM	120822	12/08/2025	01/08/2024 / bin	03/17/2023 / bin	M5519

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57119 / Potassium (K) 10,000PPM	120822	12/08/2025	08/01/2024 / Jaswal	03/17/2023 / bin	M5520

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57022 / Titanium (Ti) 1000PPM	050223	05/02/2026	05/08/2023 / jaswal	05/08/2023 / jaswal	M5545

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58024 / Chromium, Cr, 500 ml, 1000 PPM	060523	06/05/2026	08/28/2023 / jaswal	08/25/2023 / jaswal	M5658

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	6020ISS / 6020ISS, 10 ug/ml, Bi, Ho, In, 6Li, Rh, Sc, TB, Y	T2-MEB709511	09/03/2026	08/07/2024 / jaswal	04/11/2022 / jaswal	M5739

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58029 / Cu, 1000 PPM, 500 ml	071723	07/17/2026	10/01/2024 / Jaswal	08/25/2023 / jaswal	M5751

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57004 / Be, 1000 PPM, 125 ml	102523	10/25/2026	02/09/2024 / bin	02/09/2024 / bin	M5798

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57050 / Sn, 1000 PPM, 125 ml	071123	07/11/2026	02/09/2024 / bin	02/09/2024 / bin	M5799

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57027 / CO, 1000 PPM, 125 ml	091923	09/19/2026	05/31/2024 / bin	02/09/2024 / bin	M5800

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57033 / As, 1000 PPM, 125 ml	111323	11/13/2026	02/09/2024 / bin	02/09/2024 / bin	M5801

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58126 / Fe, 10000 PPM, 500 ml	051523	05/15/2026	02/06/2025 / kareem	01/03/2024 / jaswal	M5811

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	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.	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 #
EPA	PART A / ICSA (ICPMS) STOCK SOLN	CP-MS ICSA-0803	04/30/2025	04/17/2024 / jaswal	07/14/2022 / jaswal	M5873

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	PART B / ICSB (ICPMS) STOCK SOLUTION	CP-MS ICSB-0803	04/30/2025	04/17/2024 / jaswal	07/14/2022 / jaswal	M5874

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGTI1-1 / TITANIUM 125mL 1000ug/mL	T2-TI719972	06/17/2027	06/18/2024 / Jaswal	02/22/2024 / Jaswal	M5942

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57028 / Ni, 1000 PPM, 125 ml	041124	04/11/2027	07/02/2024 / Jaswal	06/11/2024 / Jaswal	M5961

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57034 / Se, 1000 PPM, 125 ml	060624	06/06/2027	07/02/2024 / Jaswal	06/14/2024 / Jaswal	M5962

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGMO1-1 / MOLYBDENUM 125mL 1000ug/mL	T2-MO720876	07/17/2027	01/16/2025 / JANVI	02/22/2024 / Jaswal	M5977

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57092 / U, 1000 PPM, 125 ml	060724	06/07/2027	07/29/2024 / Jaswal	06/11/2024 / Jaswal	M5981

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57040 / Zr, 1000 PPM, 125 ml	071423	07/14/2026	07/29/2024 / Jaswal	06/11/2024 / Jaswal	M5983

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGSR1-1 / Strontium, 125 ml, 1000 PPM	U2-SR730227	03/03/2028	01/14/2025 / Jaswal	08/05/2024 / Jaswal	M6019

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGU1-1 / Uranium 1000 ug/ml	U2-U735194	04/03/2028	01/15/2025 / Jaswal	08/05/2024 / Jaswal	M6020

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57023 / V, 1000 PPM, 125 ml	062424	06/24/2027	09/28/2024 / jaswal	08/05/2024 / Jaswal	M6021

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57081 / TI, 1000 PPM, 125 ml	0624724	06/27/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6023

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57082 / Pb, 1000 PPM, 125 ml	061224	11/09/2026	08/05/2024 / Jaswal	08/05/2024 / Jaswal	M6025

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57182 / Pb, 10000 PPM, 125 ml	110923	11/09/2026	12/05/2024 / janvi	08/05/2024 / Jaswal	M6026

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57048 / Cd, 1000 PPM, 125 ml	070124	07/01/2027	08/05/2024 / kareem	08/05/2024 / Jaswal	M6028

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57047 / Ag, 1000 PPM, 125 ml	122823	12/28/2026	08/05/2024 / kareem	08/05/2024 / Jaswal	M6030

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57056 / Ba, 1000 PPM, 125 ml	010924	01/09/2027	01/14/2025 / Jaswal	08/05/2024 / Jaswal	M6032

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	IV-STOCK-12 / ICP-MS TUNING SOLUTION, 125mL	U2-MEB734294	06/21/2028	08/21/2024 / Jaswal	08/19/2024 / Jaswal	M6055

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CHEM-QC-4 / CHEM-QC-4, Second Source, 1000 ug/ml, B, Mo, Si, Sn, Ti	V2-MEB746173	01/29/2026	01/29/2025 / JANVI	08/22/2024 / Jaswal	M6058

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57040 / Zr, 1000 PPM, 125 ml	071423	07/14/2026	01/15/2025 / Jaswal	09/30/2024 / Jaswal	M6079

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58120 / Calcium, 500 ml, 10000 PPM	082324	08/23/2027	03/06/2025 / JANVI	10/14/2024 / jaswal	M6086

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58112 / Mg, 10000 PPM, 500 ml	112124	11/21/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6127

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58025 / Mn, 1000 PPM, 500 ml	101124	10/11/2027	01/13/2025 / kareem	01/13/2025 / kareem	M6128

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGSI1-1 / SILICON 125mL 1000ug/mL	V2-SI744713	07/10/2029	01/14/2025 / Jaswal	10/03/2024 / Jaswal	M6137

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58111 / Na, 10000 PPM, 500 ml	072424	07/24/2027	01/23/2025 / kareem	01/13/2025 / Jaswal	M6144

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58030 / Zinc, Zn, 500 ml, 1000 PPM	121724	12/17/2027	02/04/2025 / Jaswal	01/13/2025 / Jaswal	M6145

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57051 / Sb, 1000 PPM, 125 ml	071724	07/17/2027	01/31/2025 / kareem	10/18/2024 / kareem	M6146

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
EPA	ICV-1 / ICV (ICP/ICPMS) STOCK SOLN	ICV1-1014	07/07/2025	02/07/2025 / JANVI	04/20/2021 / JANVI	M6150

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L)	22G2862015	08/18/2025	02/18/2025 / Sagar	01/15/2025 / Sagar	M6151

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Inorganic Ventures	CGSR10 / Strontium (SR), 125mL 10,000ppm	V2-SR754329	02/28/2026	02/28/2025 / JANVI	01/07/2025 / JANVI	M6153

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	57042 / Mo, 1000 PPM, 125 ml	032123	03/21/2026	11/06/2024 / JANVI	06/12/2024 / JANVI	M6156

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L)	24D1062002	03/25/2029	03/10/2025 / Eman	02/02/2025 / Sagar	M6158

CHEMICAL RECEIPT LOG BOOK

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Absolute Standards, Inc.	58113 / Al, 10000 PPM, 500 ml	011325	03/18/2026	03/18/2025 / kareem	02/09/2025 / kareem	M6159

Supplier	ItemCode / ItemName	Lot #	Expiration Date	Date Opened / Opened By	Received Date / Received By	Chemtech Lot #
Seidler Chemical	DIW / DI Water	Daily Lab-Certified	07/03/2029	07/03/2024 / lwona	07/03/2024 / lwona	W3112



M6032

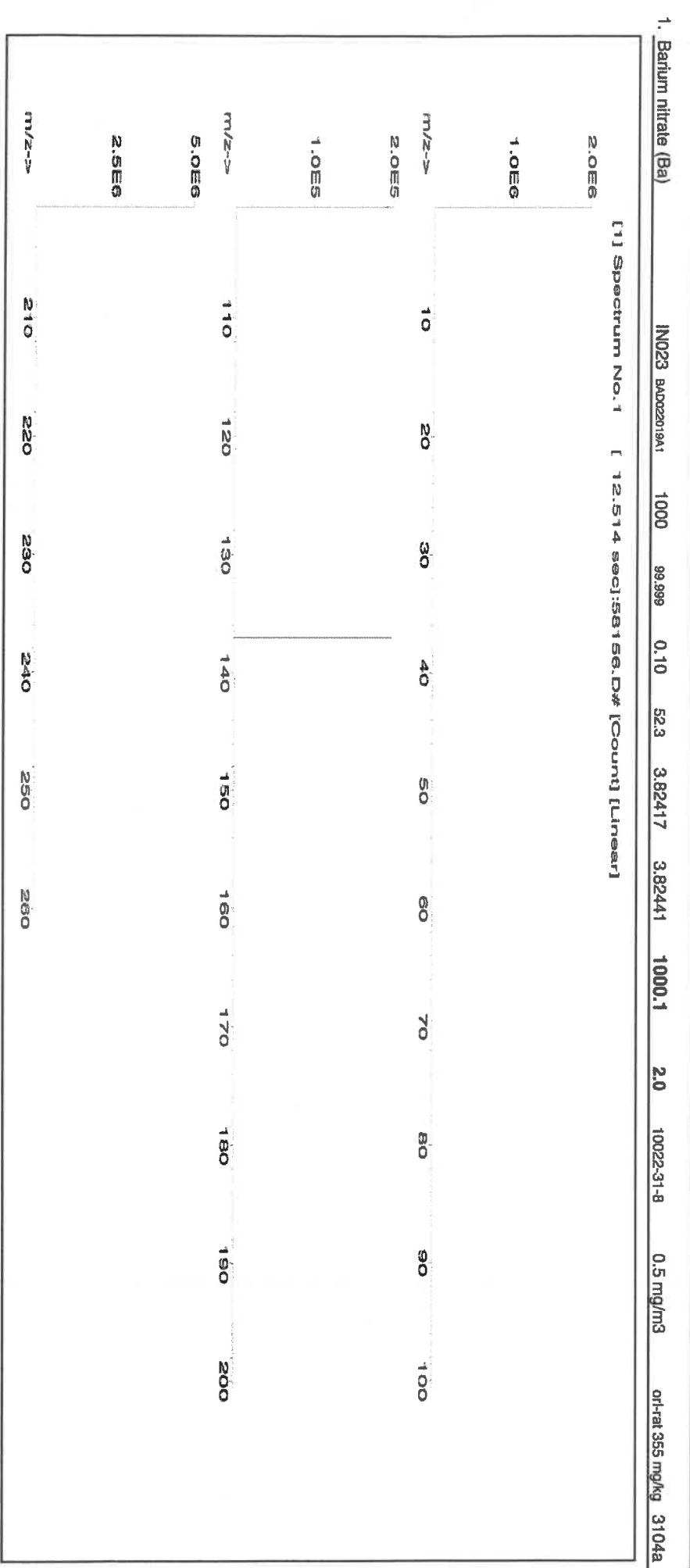


CERTIFIED WEIGHT REPORT:

Part Number: 57056
Lot Number: 010924
Description: Barium (Ba)
Solvent: Nitric Acid
Lot #
Expiration Date: 010927
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02
Balance Uncertainty: 5E-05
Flask Uncertainty: 0.058

<i>Giovanni Esposito</i>	
Formulated By:	Giovanni Esposito
010924	
<i>Pedro L. Renteria</i>	
Reviewed By:	Pedro L. Renteria
010924	

SDS Information									
Compound	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)
1. Barium nitrate (Ba)	IN023	BA0022019A1	1000	99.999	0.10	52.3	3.82417	3.82441	1000.1





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	T	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



Certified Reference Material CRM



Rev'd 2/10/14/2021 M6085 / M6086 / M6087

CERTIFIED WEIGHT REPORT:

Part Number: 58120
Lot Number: 082324
Description: Calcium (Ca)

Solvent: 24002546 Nitric Acid

Lot #

Giovanni Esposito
Formulated By: Giovanni Esposito
Reviewed By: Pedro L. Rentas

082324

Pedro L. Rentas
Reviewed By: Pedro L. Rentas

082324

Expiration Date: 082327
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

2% 80.0 (mL) Nitric Acid

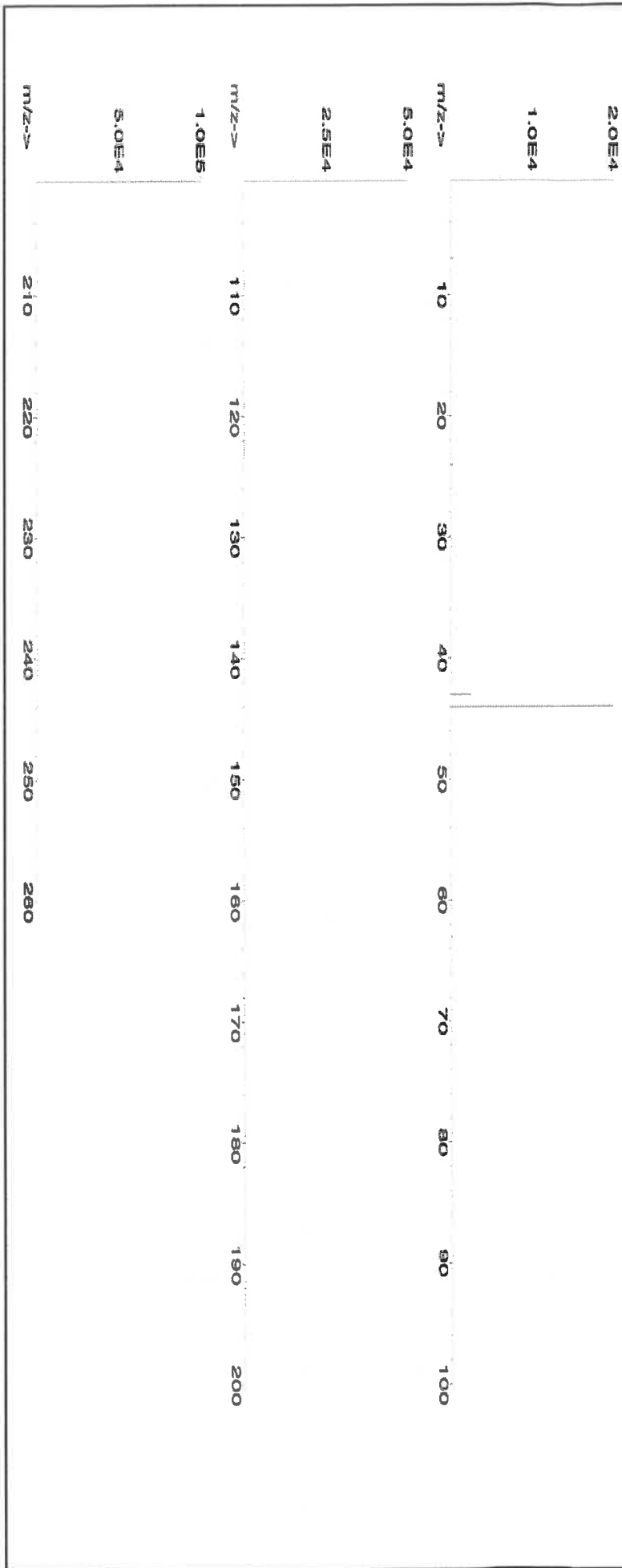
Weight shown below was diluted to (mL): 4000.1 0.15 Flask Uncertainty

SDS Information

Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Calcium carbonate (Ca) IN014 CAD03202383 10000 99.999 0.10 39.9 100.2537 100.2656 10001.2 20.0 471-34-1 5 mg/m3 or-rat >2000mg/kg 3109a

[1] Spectrum No. 1 [12.514 sec]: 58120.D* [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	T	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	30	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Su	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



M6028



CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57048
070124
Cadmium (Cd)

Lot #
Solvent: 24002546 Nitric Acid

Expiration Date:

070127

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL):

1000

NIST Test Number:

6UTB

Weight shown below was diluted to (mL):

2000.07

SE-05 Balance Uncertainty
0.100 Flask Uncertainty

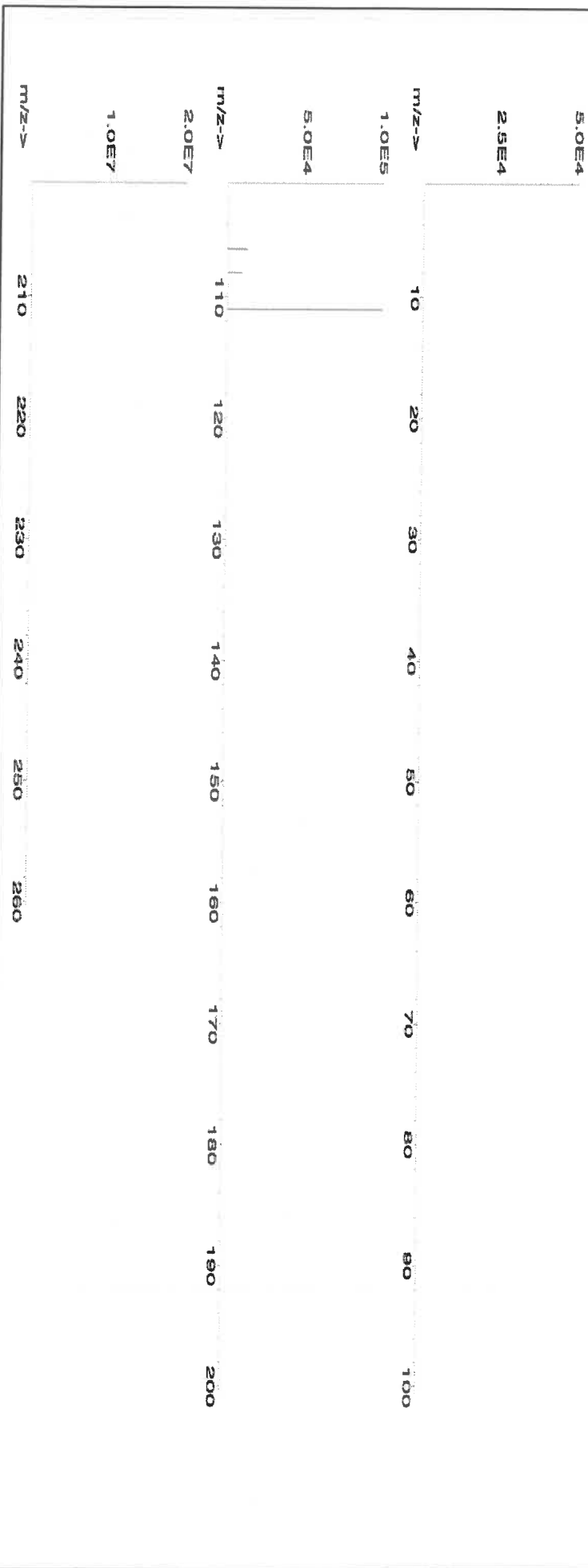
<i>Aleah O'Brady</i>	
Formulated By:	Aleah O'Brady
	070124
<i>Pedro L. Rentas</i>	
Reviewed By:	Pedro L. Rentas
	070124

Compound

Lot	Nominal	Purity	Uncertainty	Assay	Target	Actual	Actual	Expanded	SDS Information	NIST
Number	Conc. (µg/mL)	(%)	Purity (%)	(%)	Weight (g)	Weight (g)	Conc. (µg/mL)	+/- (µg/mL)	(Solvent Safety Info. On Attached pg.)	SRM

1. Cadmium nitrate tetrahydrate (Cd)	IN024	CDM09221A1	1000	99.999	0.10	36.5	5.4797	5.4804	1000.1	2.0	10022-68-1	0.01 mg/m3	or-rat 60.2mg/kg	3108
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[1] Spectrum No.1 [12.S14 sec]:\$8148.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.2	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Ba	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Cd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pr	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



Certified Reference Material CRM



CERTIFIED WEIGHT REPORT:

Part Number: 58126
Lot Number: 051523
Description: Iron (Fe)

Solvent: 21110221 Nitric Acid

Lot #

Expiration Date: 051526

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 10000

NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 5000.1

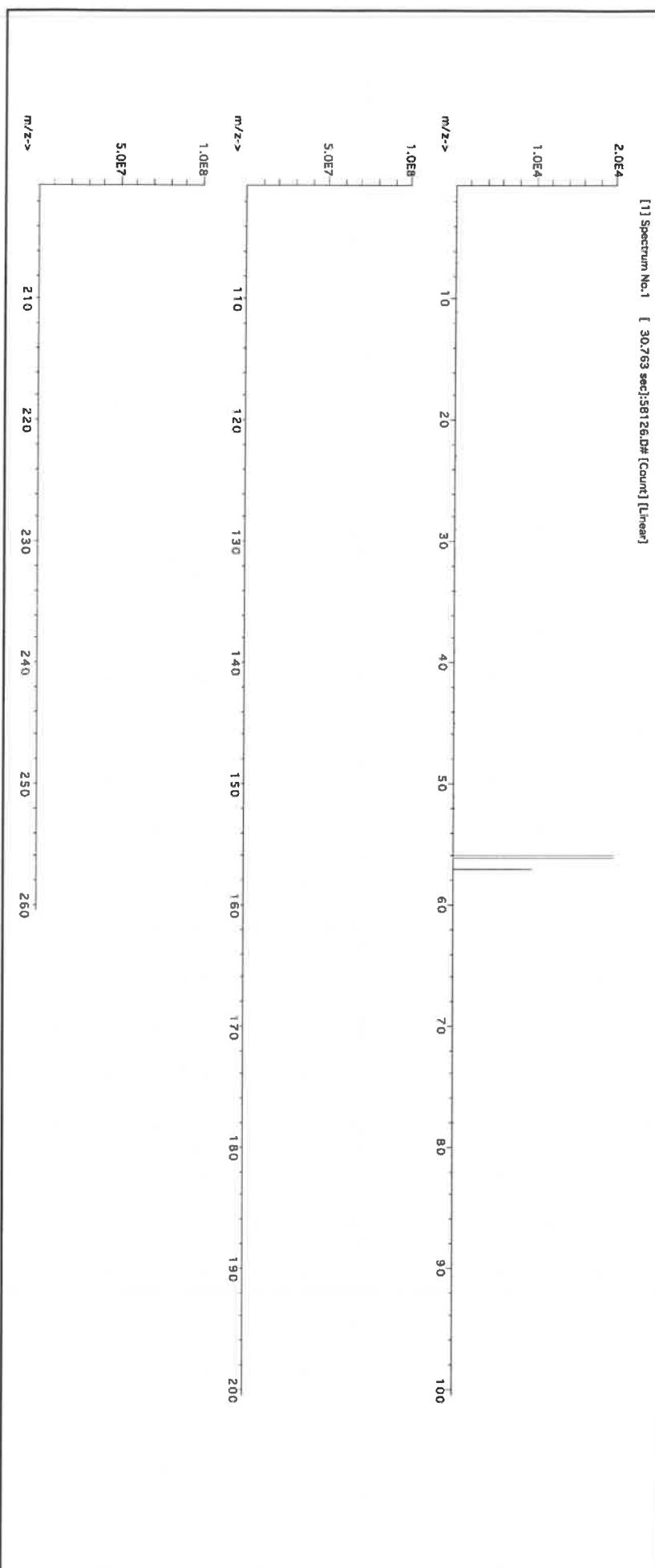
5.0% 250.0 (mL) Nitric Acid

<i>Giovanni Esposito</i>	
Formulated By:	Giovanni Esposito
	051523
<i>Pedro L. Renias</i>	
Reviewed By:	Pedro L. Renias
	051523

SDS Information

Compound	Lot	Nominal	Purity	Uncertainty	Assay	Target	Actual	Actual	Uncertainty	(Solvent Safety Info. On Attached pg.)			NIST
	Number	Conc. (µg/mL)	(%)	Purity (%)	(%)	Weight (g)	Weight (g)	Conc. (µg/mL)	+/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	SRM

1. Iron (Fe) IN346 2302010-500 10000 99.995 0.10 100.0 50.0034 50.0111 10001.5 20.0 7439-89-6 5 mg/m3 or-rel 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	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ce	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rb	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.10	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.05	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.10	Ge	<0.10	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.10
B	<0.02	Cu	<0.10	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Tl	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



Certified Reference Material CRM



CERTIFIED WEIGHT REPORT:

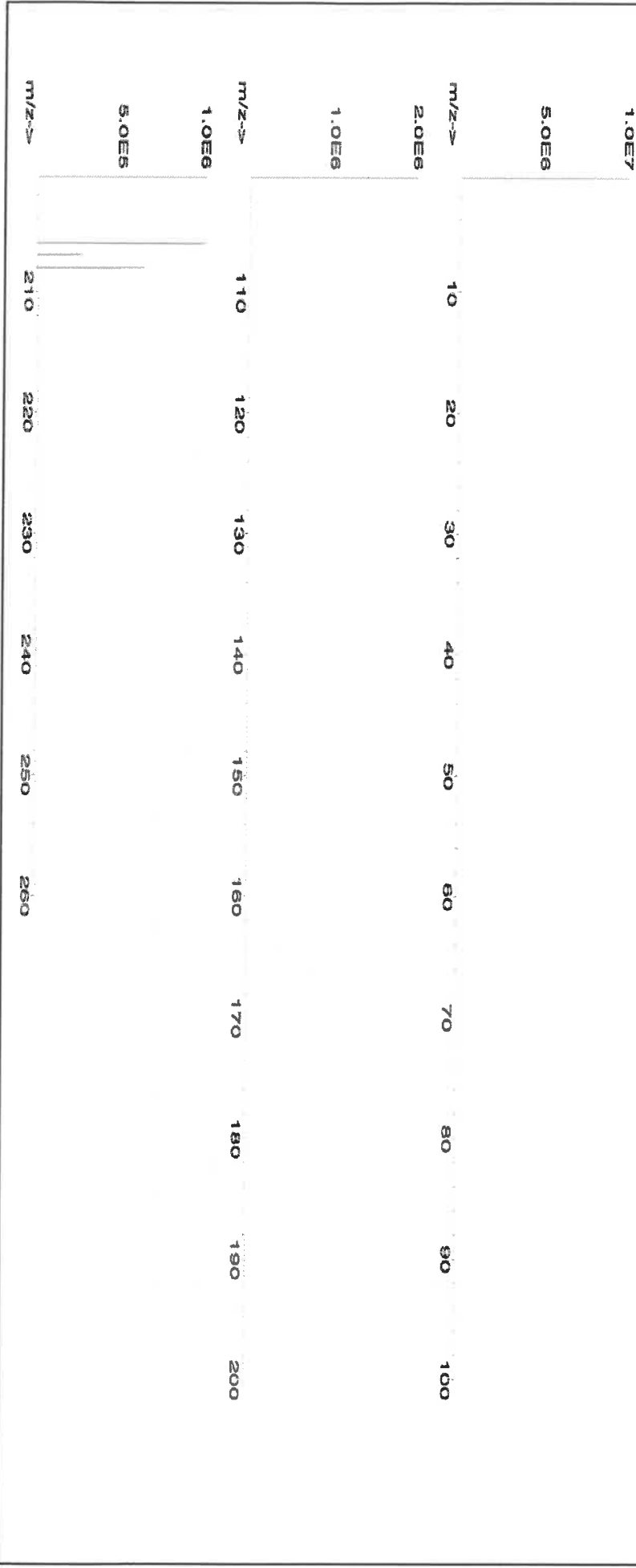
Part Number: **57182**
Lot Number: **110923**
Description: **Lead (Pb)**
Solvent: **24002546 Nitric Acid**
Lot #: **M6025**

Expiration Date: **110926**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **10000**
NIST Test Number: **6UTB**
Weight shown below was diluted to (mL): **2000.02**
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry
Reviewed By:	Pedro L. Rentas
110923	

SDS Information									
Compound	Lot	Nominal	Purity	Uncertainty	Assay	Target	Actual	Actual	Expanded
	Number	Conc. (µg/mL)	(%)	Purity (%)	(%)	Weight (g)	Weight (g)	Conc. (µg/mL)	+/- (µg/mL)
1. Lead(II) nitrate (Pb)	IN029	PED12016A1	10000	99.999	0.10	62.5	32.0006	32.0040	10001.1
									20.0
									10099-74-8
									0.05 mg/m3
									intrinsic 83 mg/kg
									3128

[1] Spectrum No.1 [17.284 sec]:58182.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS ($\mu\text{g/mL}$)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

Physical Characterization:

(T)= Target analyte

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



MC026



CERTIFIED WEIGHT REPORT:

Part Number: 57182
Lot Number: 110923
Description: Lead (Pb)

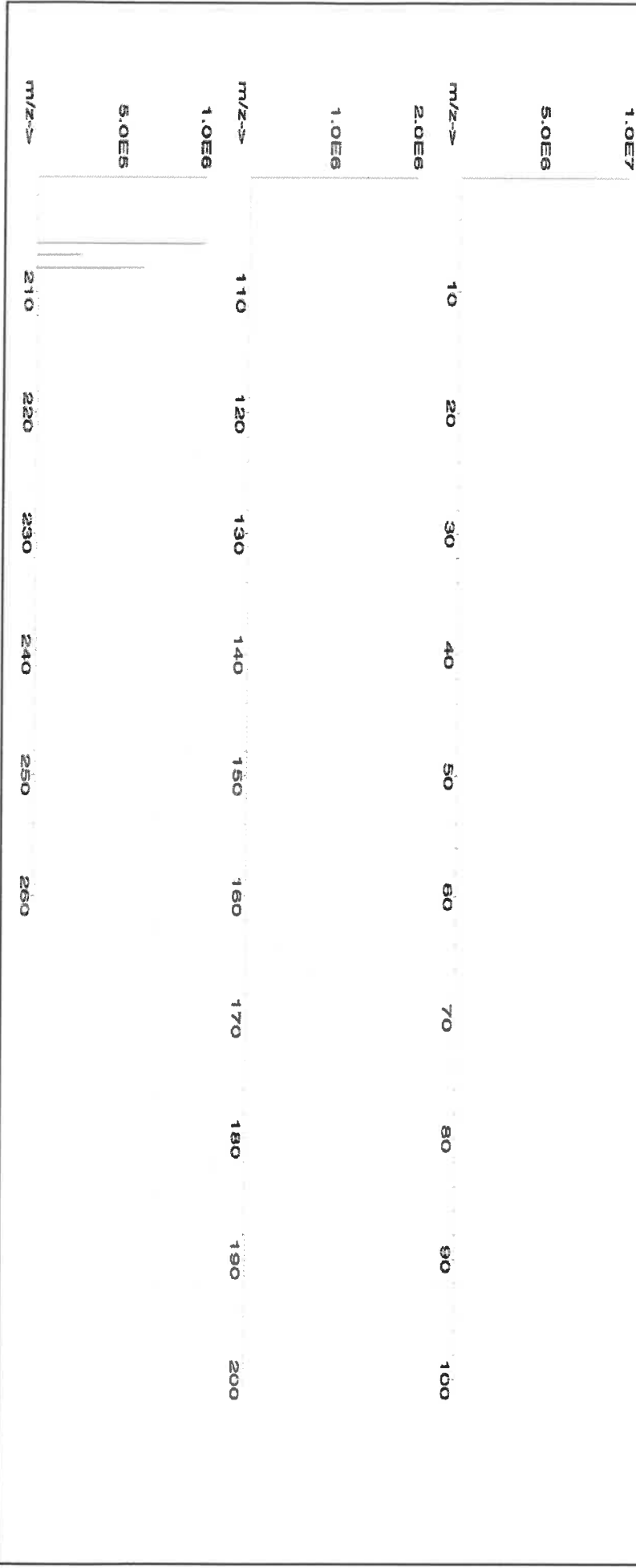
Solvent: 24002546 Nitric Acid
Lot #

Expiration Date: 110926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.02
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By:	Lawrence Barry
110923	
Reviewed By:	Pedro L. Rentas
110923	

SDS Information									
Compound	Lot	Nominal	Purity	Uncertainty	Assay	Target	Actual	Actual	Expanded
	Number	Conc. (µg/mL)	(%)	Purity (%)	(%)	Weight (g)	Weight (g)	Conc. (µg/mL)	+/- (µg/mL)
1. Lead(II) nitrate (Pb)	IN029	PED12016A1	10000	99.999	0.10	62.5	32.0006	32.0040	10001.1
									20.0
									10099-74-8
									0.05 mg/m3
									inhalant 83 mg/kg
									3128

[1] Spectrum No.1 [17.284 sec]:58182.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS ($\mu\text{g/mL}$)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

Physical Characterization:

(T)= Target analyte

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

A CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57022
070721
Titanium (Ti)

Expiration Date:	070724
Recommended Storage:	Ambient (20 °C)
Nominal Concentration (µg/mL):	1000

NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 2000.02

Lot #	Solvent:
20370011	Nitric Acid

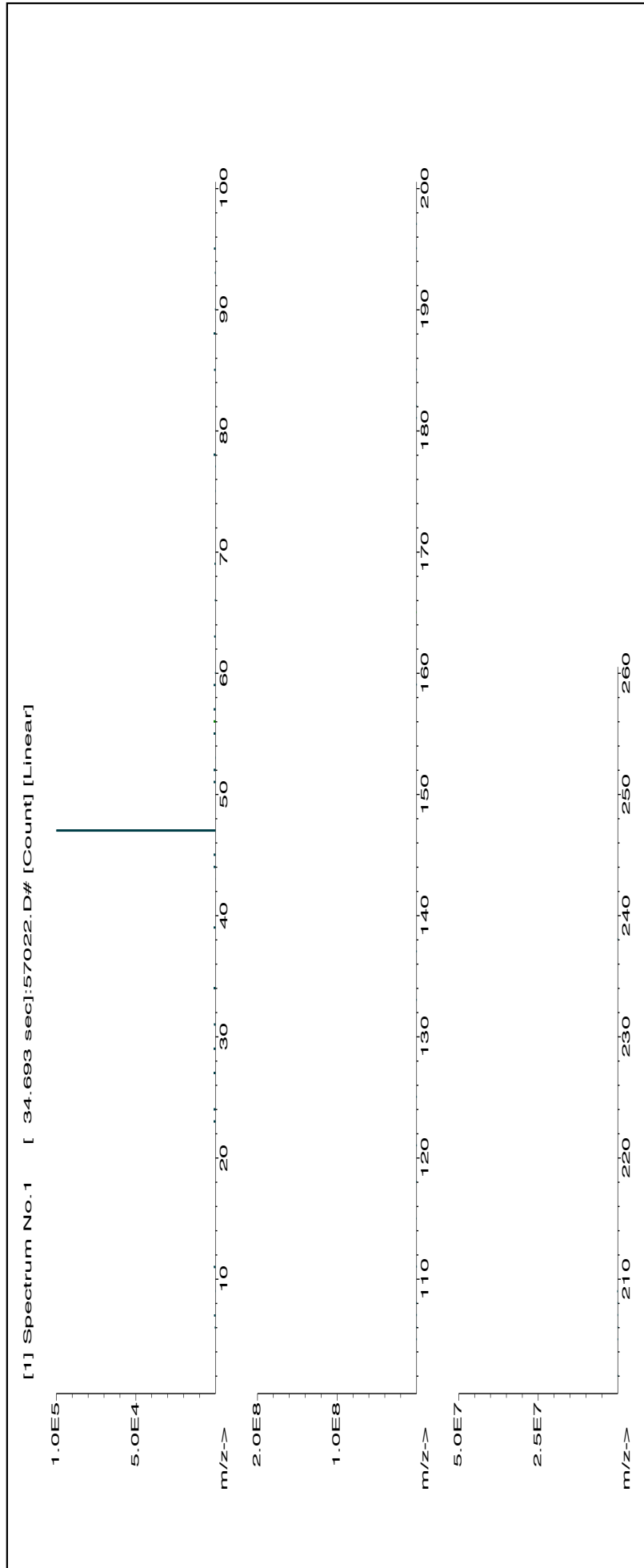
2.0%	40.0	Nitric Acid
	(mL)	

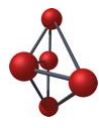
	
Formulated By:	Lawrence Barry
	
Reviewed By:	Pedro L. Rentas
	070721

SDS Information

SDS Information	
Expanded	(Solvent Safety Info. On Attached pg.)
Uncertainty	
+/- (µg/mL)	CAS# OSHA PEL (TWA) LD50
	NIST SRM

Compound	Number	Number	Factor	Vol. (mL)	Pipette	Conc. (µg/mL)	Conc. (µg/mL)	+/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	SRM
1. Ammonium hexafluorotitanate (Ti)	58122	070120	0.1000	200.0	0.084	1000	10000.1	2.2	16962-40-6	2.5 (F) mg/m3	NA	3162a





Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)																			
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.02	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	<0.02	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.02	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



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).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: 6020CAL-1
Lot Number: S2-MEB711244
Matrix: 5% (v/v) HNO₃
tr. HF
Value / Analyte(s): 20 µg/mL ea:
Silver, Aluminum,
Arsenic, Barium,
Beryllium, Calcium,
Cadmium, Cobalt,
Chromium, Copper,
Iron, Potassium,
Magnesium, Manganese,
Sodium, Nickel,
Lead, Antimony,
Selenium, Thallium,
Vanadium, Zinc

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Aluminum, Al	20.01 ± 0.08 µg/mL	Antimony, Sb	20.01 ± 0.12 µg/mL
Arsenic, As	20.01 ± 0.18 µg/mL	Barium, Ba	20.01 ± 0.11 µg/mL
Beryllium, Be	20.01 ± 0.14 µg/mL	Cadmium, Cd	20.01 ± 0.11 µg/mL
Calcium, Ca	20.01 ± 0.10 µg/mL	Chromium, Cr	20.01 ± 0.16 µg/mL
Cobalt, Co	20.01 ± 0.11 µg/mL	Copper, Cu	20.01 ± 0.10 µg/mL
Iron, Fe	20.01 ± 0.09 µg/mL	Lead, Pb	20.01 ± 0.11 µg/mL
Magnesium, Mg	19.99 ± 0.10 µg/mL	Manganese, Mn	20.01 ± 0.10 µg/mL
Nickel, Ni	20.01 ± 0.11 µg/mL	Potassium, K	20.01 ± 0.10 µg/mL
Selenium, Se	20.02 ± 0.14 µg/mL	Silver, Ag	20.02 ± 0.09 µg/mL
Sodium, Na	20.01 ± 0.10 µg/mL	Thallium, Tl	20.01 ± 0.13 µg/mL
Vanadium, V	20.01 ± 0.11 µg/mL	Zinc, Zn	20.01 ± 0.11 µg/mL

Density: 1.026 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ag	ICP Assay	3151	160729
Ag	Volhard	999c	999c
Al	ICP Assay	3101a	140903
Al	EDTA	928	928
As	ICP Assay	3103a	100818
Ba	ICP Assay	3104a	140909
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Ca	ICP Assay	3109a	130213
Ca	EDTA	928	928
Cd	ICP Assay	3108	130116
Cd	EDTA	928	928
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Cr	ICP Assay	3112a	170630
Cu	ICP Assay	3114	121207
Cu	EDTA	928	928
Fe	ICP Assay	3126a	140812
Fe	EDTA	928	928
Fe	Calculated		See Sec. 4.2
K	ICP Assay	3141a	140813
K	Gravimetric		See Sec. 4.2
Mg	ICP Assay	3131a	140110
Mg	EDTA	928	928
Mn	ICP Assay	3132	050429
Mn	EDTA	928	928
Na	ICP Assay	3152a	120715
Na	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Se	ICP Assay	3149	100901
Se	Calculated		See Sec. 4.2
Tl	ICP Assay	3158	151215
Tl	Calculated		See Sec. 4.2
V	ICP Assay	3165	160906
V	EDTA	928	928
Zn	ICP Assay	3168a	120629
Zn	EDTA	928	928

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum(1/u_{\text{char } i}^2))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k(u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum(w_i)^2(u_{\text{char } i}^2)]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a)(u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k(u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{Its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{Its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

HF Note: This standard should not be prepared or stored in glass.

Low Silver Note: This solution contains "LOW" levels of Silver. Please store this entire bottle inside a sealed glass jar.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

October 20, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **October 20, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





Certified Reference Material CRM

CERTIFIED WEIGHT REPORT:

Part Number: **58119**
Lot Number: **120822**
Description: **Potassium (K)**

Solvent: 20510011 Nitric Acid

Lot #

Expiration Date: 120825

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 10000

NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 3000.4

2% 60.0 (mL) Nitric Acid

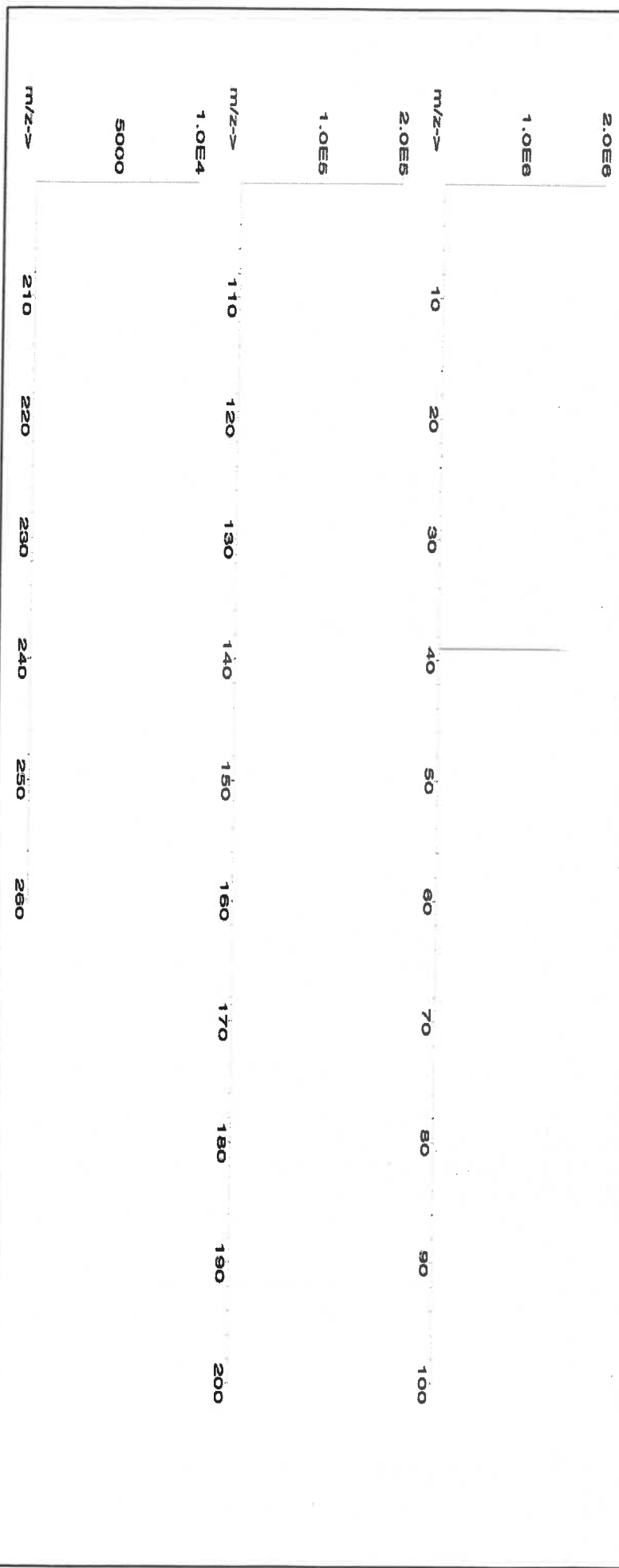
<i>Giovanni Esposito</i>	
Formulated By:	Giovanni Esposito
Reviewed By:	Pedro L. Rentas
	120822

Compound

SDS Information												
Expanded												NIST
Lot	Nominal	Purity	Uncertainty	Assay	Target	Actual	Actual	Uncertainty	(Solvent Safety Info. On Attached pg.)			
RM#	Number	Conc. (µg/mL)	(%)	Purity (%)	(%)	Weight (g)	Weight (g)	Conc. (µg/mL)	+/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50
												SRM

1. Potassium nitrate (K) IN034 KD022021A1 10000 99.989 0.10 37.6 79.7990 79.8075 10001.1 20.0 7757-79-1 5 mg/m3 or/air 3015 mg/kg 3141a

[1] Spectrum No.1 [35.763 sec]:58119.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.02	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
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Certified Reference Material CRM

CERTIFIED WEIGHT REPORT:

Part Number: **58119**
Lot Number: **120822**
Description: **Potassium (K)**

Solvent: 20510011 Nitric Acid

Lot #

Expiration Date: 120825

2% 60.0 Nitric Acid (mL)

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 10000

NIST Test Number: 6UTB

Weight shown below was diluted to (mL): 3000.4 0.06 Flask Uncertainty

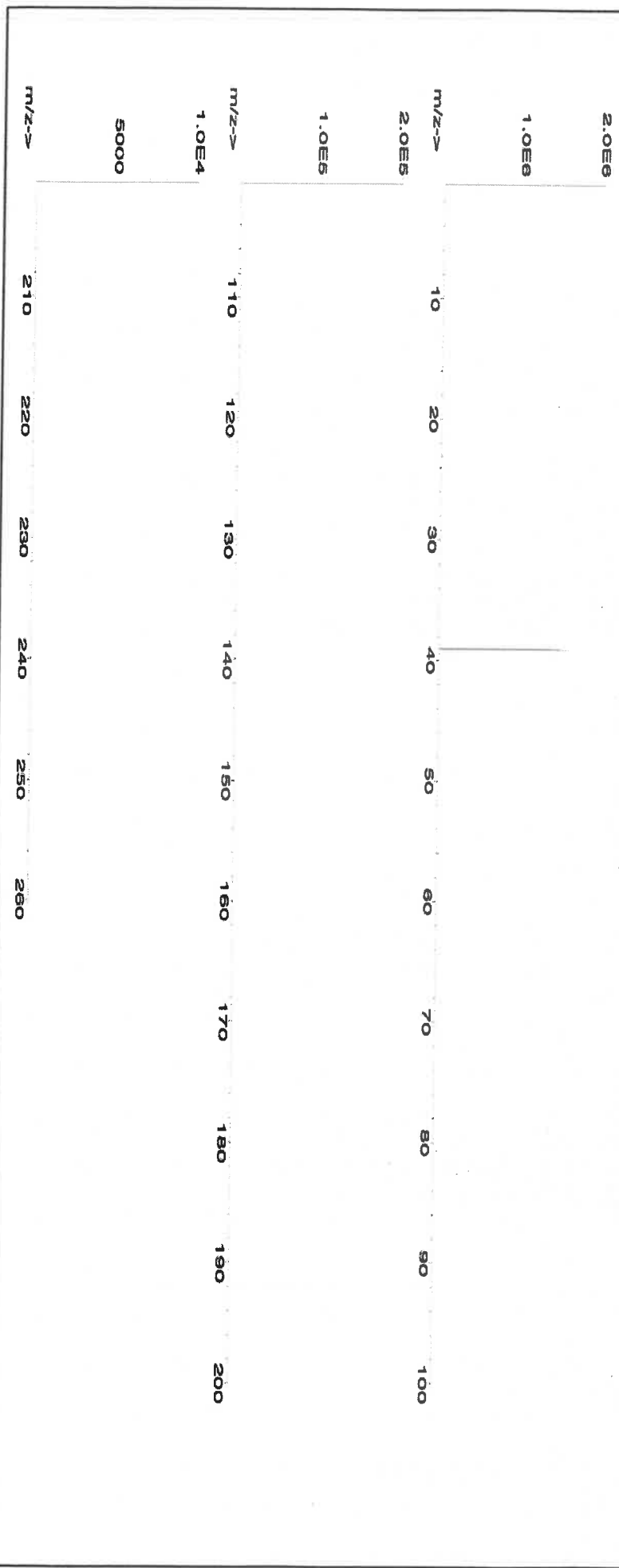
<i>Giovanni Esposito</i>	
Formulated By:	Giovanni Esposito
Reviewed By:	Pedro L. Rentas
	120822

Compound

Lot	Nominal	Purity	Uncertainty	Assay	Target	Actual	Actual	Expanded	SDS Information	NIST
Number	Conc. (µg/mL)	(%)	Purity (%)	(%)	Weight (g)	Weight (g)	Conc. (µg/mL)	Uncertainty +/- (µg/mL)	(Solvent Safety Info. On Attached pg.)	SRM

1. Potassium nitrate (K) IN034 KD022021A1 10000 99.989 0.10 37.6 79.7990 79.8075 10001.1 20.0 7757-79-1 5 mg/m3 crtat 3015 mg/kg 3141a

[1] Spectrum No.1 [35.763 sec]:58119.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.02	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

Part Number: 58024
Lot Number: 060523
Description: Chromium (Cr)

Lot # 2110221 **Solvent:** Nitric Acid

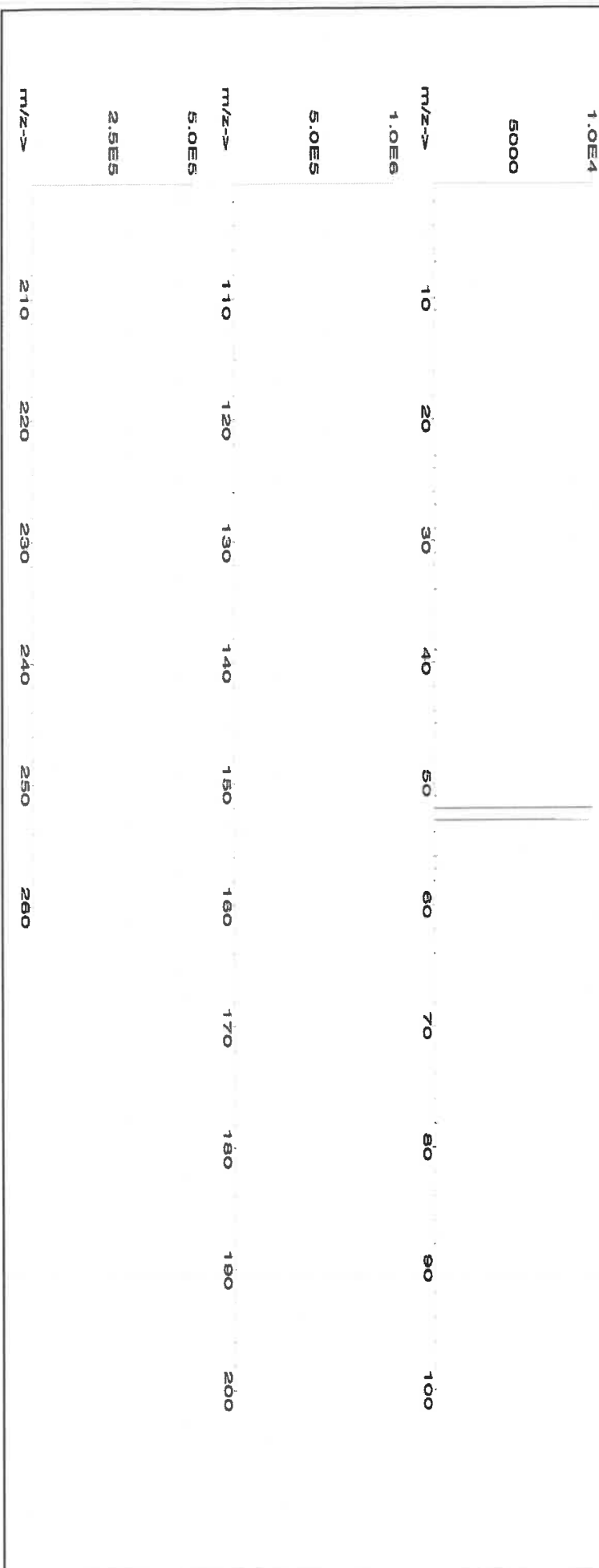
Formulated By:	Lawrence Barry
	060523
Reviewed By:	Pedro L. Ruelas
	060523

Expiration Date: 060526
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 2000.02 0.058 Balance Uncertainty
Flask Uncertainty

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Chromium(III) nitrate nonahydrate (Cr) 58124 071122 0.1000 200.0 0.084 1000 10000.1 1000.0 2.2 7789-02-8 0.5 mg(Cr)/m3 or rat 3250 mg/kg 3112a

[1] Spectrum No.1 [31.393 sec]:57024.D# [Count] [Linear]





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	T	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



Certified Reference Material CRM

R: 8/25/23 M5751



CERTIFIED WEIGHT REPORT:

Part Number: **58029**
Lot Number: **071723**
Description: **Copper (Cu)**

Lot #: **2110221**
Solvent: **Nitric Acid**

Expiration Date: **071726**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**

2.0%
40.0 (mL)
Nitric Acid

NIST Test Number: **6LUTB**
Volume shown below was diluted to (mL): **2000.02**
Balance Uncertainty: **5E-05**
Flask Uncertainty: **0.058**

Formulated By:	Benson Chan	071723
Reviewed By:	Pedro L. Ruelas	071723

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	SDS Information (Solvent Safety Info. On Attached pg.)	NIST SRM
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1. Copper(II) nitrate trihydrate (Cu) 58129 022723 0.1000 200.0 0.084 1000 10000.5 1000.0 2.2 10031-43-3 1 mg/m3 or rat 794 mg/kg 3114

[1] Spectrum No. 1 [33.422 sec]: 58029.D# [Count] [Linear]

1.0E6	m/z ->	10	20	30	40	50	60	70	80	90	100
5.0E5	m/z ->	110	120	130	140	150	160	170	180	190	200
2.5E7	m/z ->	210	220	230	240	250	260				

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	Bu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Co	<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	Cu	<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	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.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

Part Number: 57004
Lot Number: 102523
Description: Beryllium (Be)

Lot # 24002546
Solvent: Nitric Acid

Expiration Date:

102526

2.0%

40.0 (mL)

Nitric Acid

Recommended Storage:

Ambient (20 °C)

Nominal Concentration (µg/mL):

1000

NIST Test Number:

6UTB

Volume shown below was diluted to (mL): 2000.02

5E-05 Balance Uncertainty

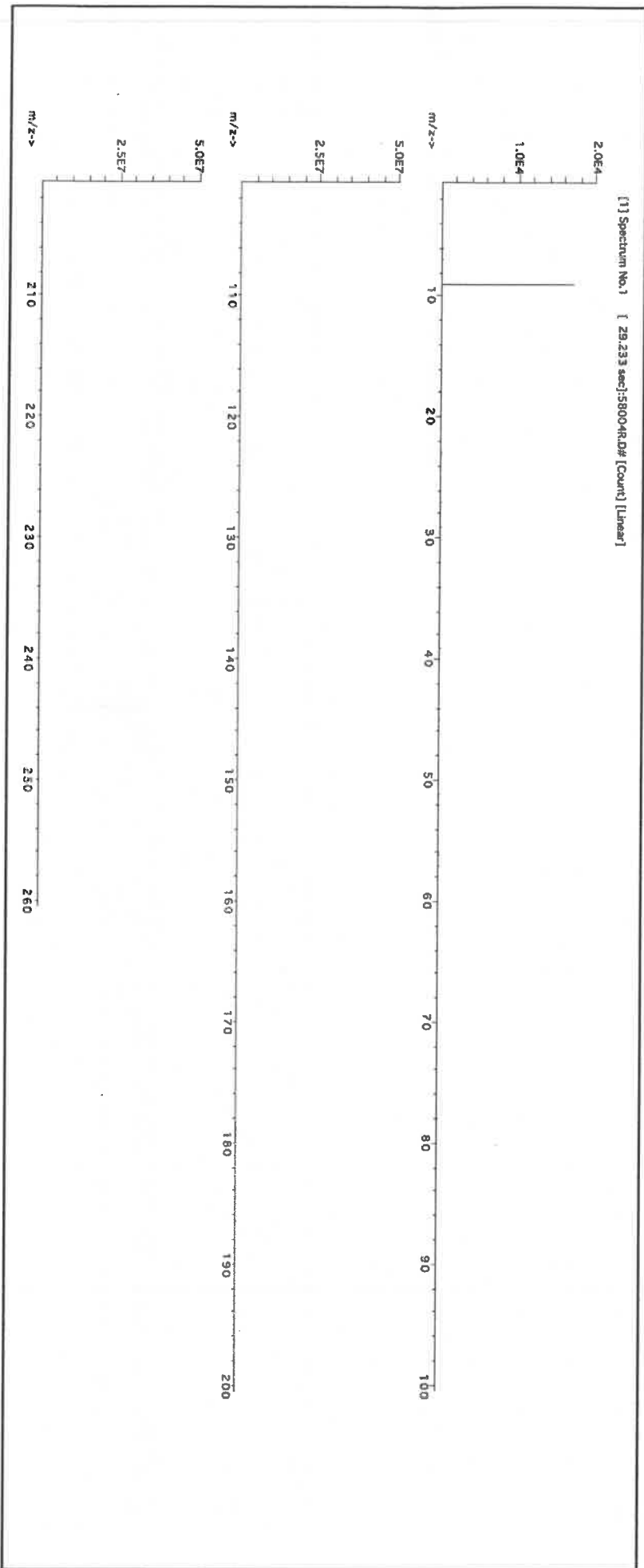
0.058 Flask Uncertainty

Formulated By:	Benson Chan	102523
Reviewed By:	Pedro L. Rentas	102523

SDS Information

Compound	Part Number	Lot	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Beryllium nitrate (Be)	58104	091423	0.1000	200.0	0.084	1000	10001.5	1000.0	2.2	13597-99-4	0.2µg/m3	intrinsc-rat 3.16mg/kg	NA
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Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Tc	<0.02	U	<0.02
As	<0.02	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Ti	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	T	Cr	<0.02	Ga	<0.02	Fe	<0.02	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Ta	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Tl	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
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- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E. "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



Certified Reference Material CRM

CERTIFIED WEIGHT REPORT:

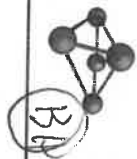
Part Number: 57050
Lot Number: 071123
Description: Tin (Sn)

Solvents: 21110221 Nitric Acid
22D0562008 Hydrochloric acid

Lot #

R-02509124

M599



Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000

2% 10.0 Nitric Acid
6% 30.0 Hydrochloric acid
(mL)

NIST Test Number: 6UTB

Weight shown below was diluted to (mL):

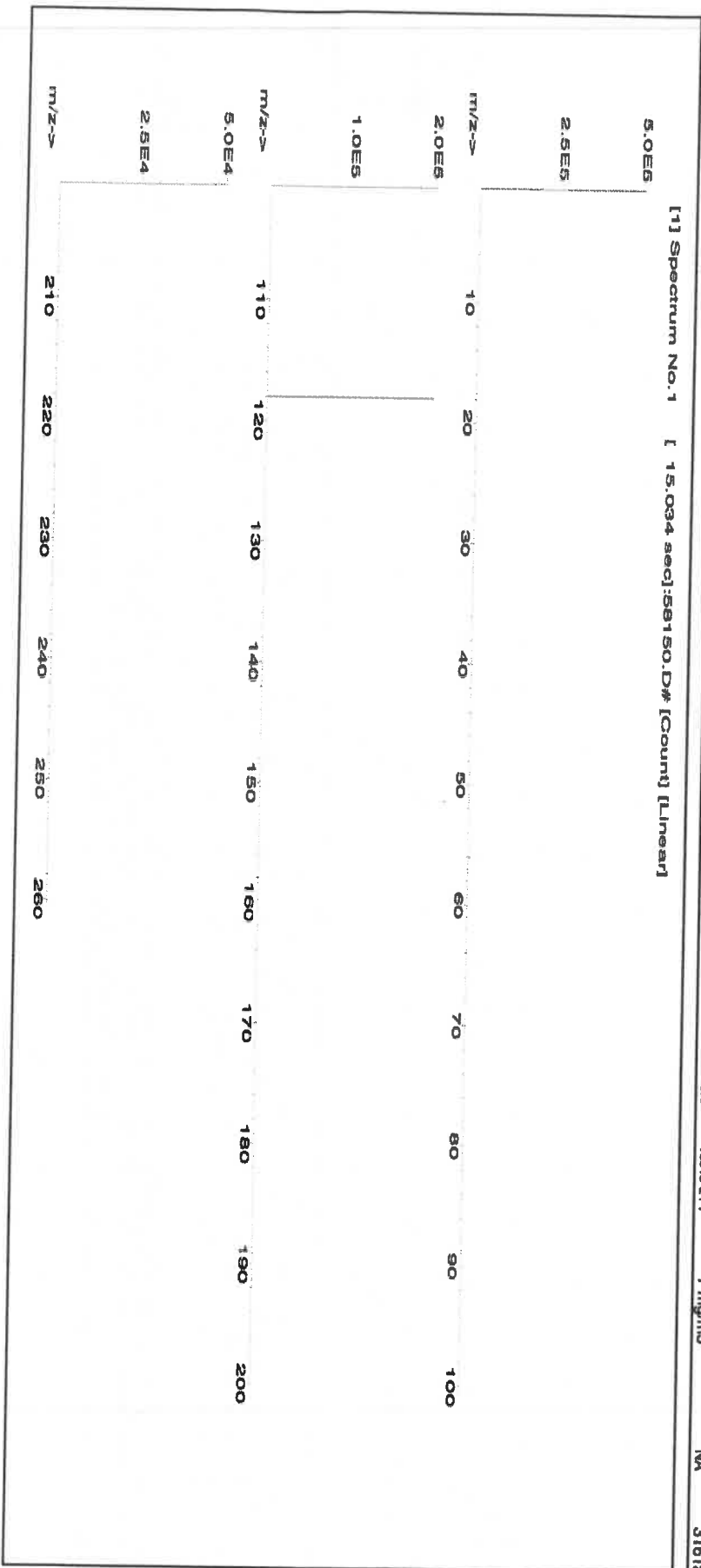
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Formulated By: Benson Chan	
071123	
Reviewed By: Pedro L. Rientas	
071123	

Compound		Lot		Nominal	Purity	Uncertainty	Assay	Target	Actual	Actual	Expanded	SDS Information		
RM#	Number	Conc. (µg/mL)	(%)	Purity (%)	(%)	Weight (g)	Weight (g)	Conc. (µg/mL)	+/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	SRM	NIST

1. Ammonium hexafluoroantimonate(V) (Sn) IN010 SMD042023A1 1000 99.999 0.10 44.2 1.13107 1.13286 1001.6 2.0 16919-24-7 7 mg/m3 NA 3161a

[1] Spectrum No. 1 [15.034 sec]:56150.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	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	Ta	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



R: 02/09/24 115800 (54)

CERTIFIED WEIGHT REPORT:

Part Number: 57027
Lot Number: 091923
Description: Cobalt (Co)

Expiration Date: 091926
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Volume shown below was diluted to (mL): 2000.02

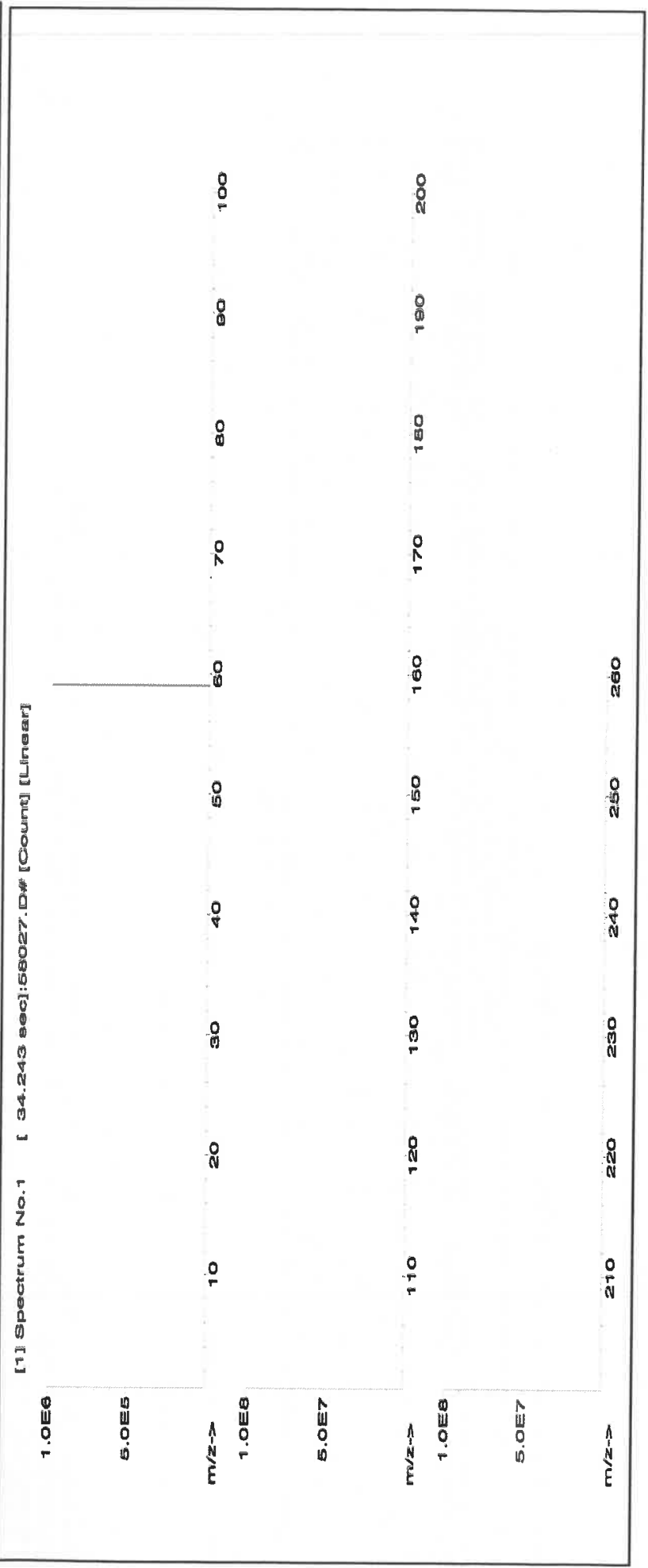
Lot # 24002546
Solvent: Nitric Acid

Formulated By:	Lawrence Barry
Reviewed By:	Pedro L. Rentas

SDS Information

Expanded Uncertainty +/- (µg/mL)
(Solvent Safety Info. On Attached pg.)
NIST SRM

1. Cobalt(II) nitrate hexahydrate (Co) 58127 050923 0.1000 200.0 0.084 1000 10000.0 1000.0 2.2 10026-22-9 0.02 mg/m3 orl-rat 691 mg/kg 3113





Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS ($\mu\text{g/mL}$)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.2	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.02	Os	<0.01	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.02	Hg	<0.2	P	<0.2	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:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

Ben. F.

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



Certified Reference Material CRM

CERTIFIED WEIGHT REPORT:

Part Number: 57033
Lot Number: 111323
Description: Arsenic (As)

Lot # 24002546
Solvent: Nitric Acid

Expiration Date: 111326
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6LUTB
Volume shown below was diluted to (mL): 4000.0

Balance Uncertainty: 5E-05
Flask Uncertainty: 0.06

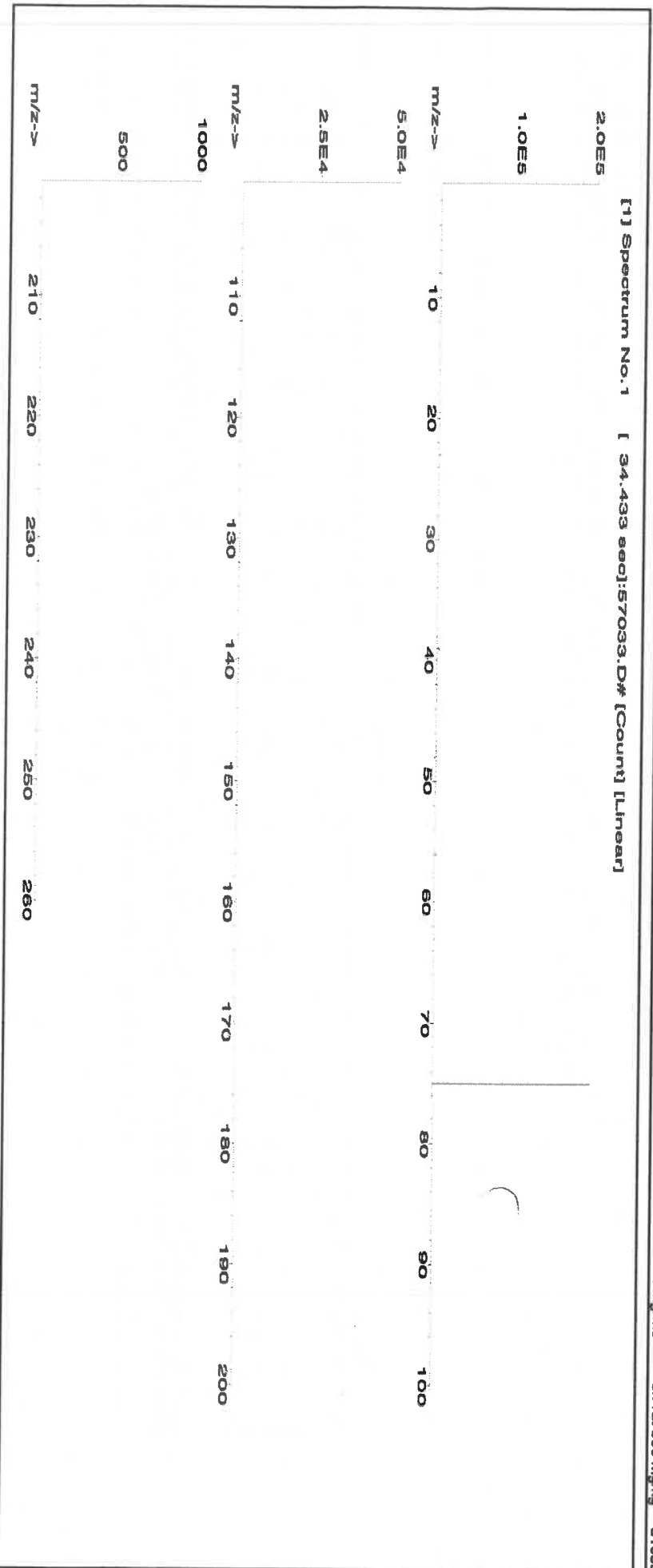
2.0% 80.0 (mL) Nitric Acid

Formulated By:	Lawrence Barry	111323
Reviewed By:	Pedro L. Rendas	111323

SDS Information									
Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)
1. Arsenic (As)	57033	020522	0.1000	400.0	0.084	1000	10001.0	1000.0	2.0

(Solvent Safety Info. On Attached pg.) CAS# OSHA PEL (TWA) LD50 SRM NIST

[1] Spectrum No. 1 [34.433 sec]:57033.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	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	Tl _h	<0.02	Yb	<0.02
Bc	<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	Sa	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

Part Number: 57115
Lot Number: 041723
Description: Phosphorous (P)

Solvent: 21110221 Nitric Acid

Lot #

Expiration Date: 041726
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB

2% 40.0 (mL) Nitric Acid

Weight shown below was diluted to (mL): 2000.02 0.056 Balance Uncertainty
Flask Uncertainty

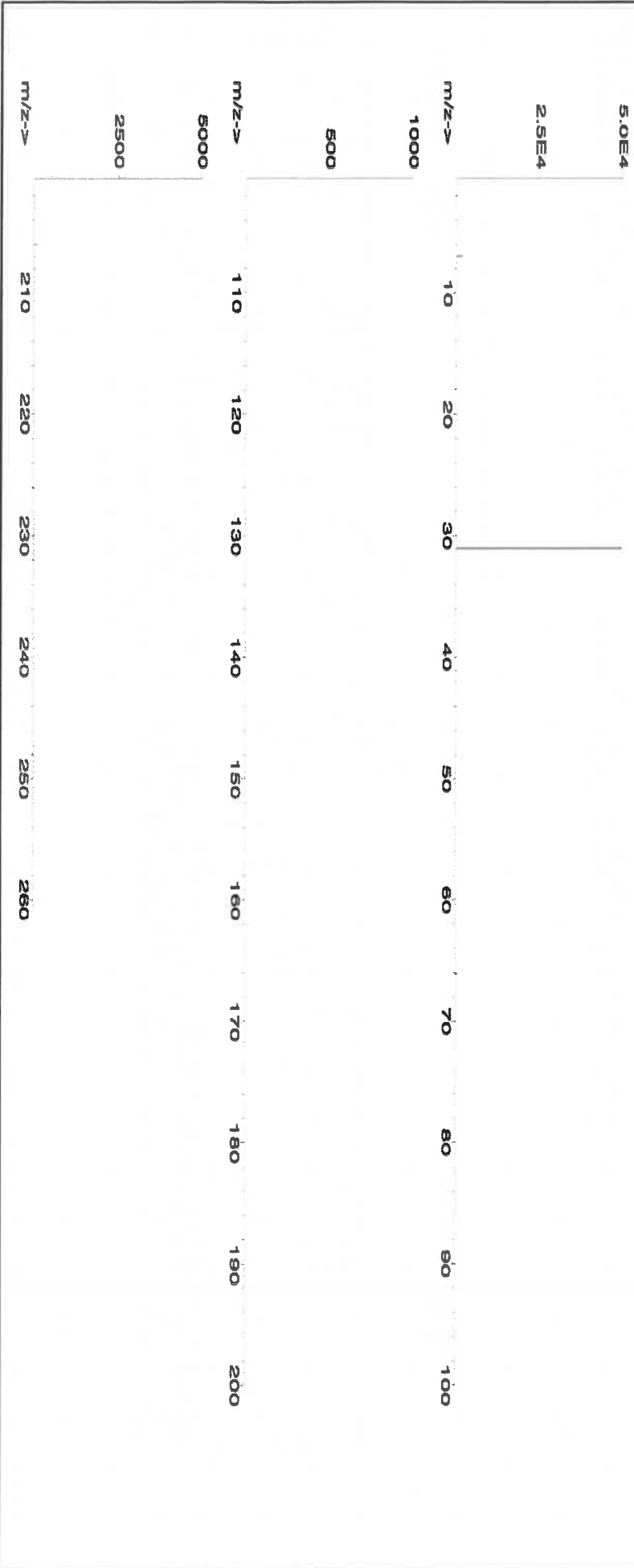
Formulated By: Lawrence Barry	041723
Reviewed By: Pedro L. Rentas	041723

Compound

RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
-----	------------	-----------------------	------------	-----------------------	-------------------	-------------------	----------------------	----------------------------------	------	----------------	------	----------

1. Ammonium dihydrogen phosphate (P) IN008 PVR2019A1 10000 99.999 0.10 27.5 72.7287 72.7289 10000.0 20.0 7722-76-1 5 mg/m3 or-hal->2000mg/kg 3186

[1] Spectrum No.1 [12.074 sec]:58115.D# [Count] [Linear]





Certified Reference Material CRM



ANAB ISO 17034 Accredited
AFR-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	T	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard

Certified by:

Don P. [Signature]

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

Part Number: 57116
Lot Number: 071123
Description: Sulfur (S)

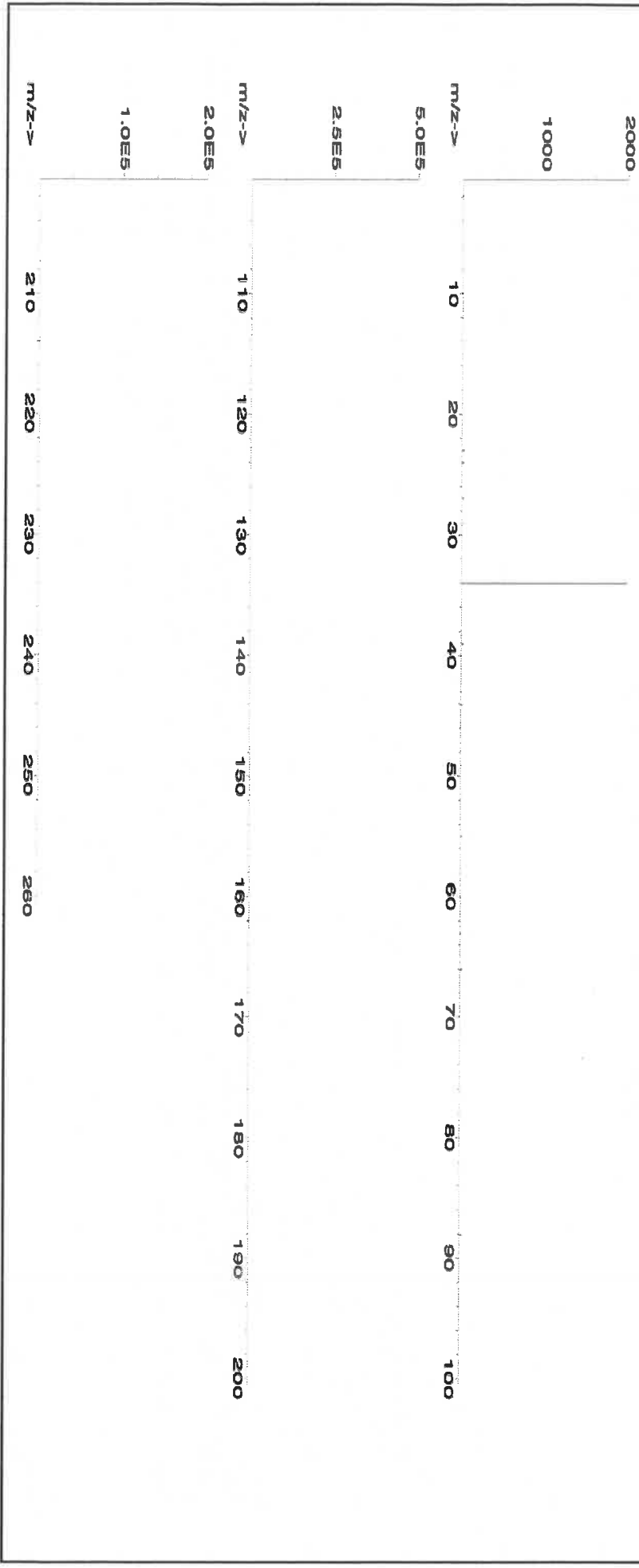
Solvent: 071123
ASTM Type 1 Water

Formulated By:	Lawrence Barry
Reviewed By:	Pedro L. Rentas
Lot #	071123

Expiration Date: 071126
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 1999.48
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

SDS Information									
Compound	Lot	Nominal	Purity	Uncertainty	Assay	Target	Actual	Actual	Expanded
	Number	Conc. (µg/mL)	(%)	Purity (%)	(%)	Weight (g)	Weight (g)	Conc. (µg/mL)	+/- (µg/mL)
Ammonium sulfate (S)	IN117	SLBR725V	10000	99.9	0.10	24.3	82.4675	82.4692	10000.1
									20.0
							7783-20-2	NA	oral 4250mg/kg
									3181

[1] Spectrum No. 1 [24.004 sec]:58116.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	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

Physical Characterization:

(T)= Target analyte

Certified by:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

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R: 02/22/24 M.5942

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGT11
Lot Number: T2-TI719972
Matrix: 2% (v/v) HNO₃
tr. HF
Value / Analyte(s): 1 000 µg/mL ea:
Titanium
Starting Material: Ti Metal
Starting Material Lot#: 2094
Starting Material Purity: 99.9975%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1002 ± 5 µg/mL
Density: 1.012 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 1002 ± 4 µg/mL
ICP Assay NIST SRM 3162a Lot Number: 130925

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum (1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (z) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum (w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (z) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000536	M	Eu	<	0.000268	O	Na	<	0.032670	M	Se		0.001204	O	Zn	<	0.003267
O	Al		0.000872	O	Fe		0.003225	O	Nb	<	0.043560	O	Si		0.004735	O	Zr	<	0.043560
M	As	<	0.008586	M	Ga	<	0.000268	M	Nd	<	0.000268	M	Sm	<	0.000268				
M	Au	<	0.004577	M	Gd	<	0.000268	O	Ni	<	0.010890	M	Sn		0.000096				
O	B	<	0.008929	M	Ge	<	0.002146	M	Os	<	0.000269	O	Sr		0.000096				
M	Ba	<	0.002683	M	Hf		0.002161	O	P	<	0.054450	M	Ta		0.010560				
M	Be	<	0.005366	M	Hg	<	0.003231	M	Pb	<	0.001073	M	Tb	<	0.000268				
M	Bi	<	0.001609	M	Ho	<	0.000268	M	Pd	<	0.000268	M	Te	<	0.001341				
O	Ca		0.000676	M	In	<	0.002683	M	Pr	<	0.000268	M	Th	<	0.053663				
M	Cd	<	0.000268	M	Ir	<	0.000269	M	Pt	<	0.000536	s	Ti	<					
M	Ce	<	0.000268	M	K		0.001172	M	Rb	<	0.000268	M	Tl	<	0.000268				
M	Co	<	0.004293	M	La	<	0.000268	M	Re	<	0.000268	M	Tm	<	0.000268				
M	Cr		0.000752	O	Li	<	0.027225	M	Rh	<	0.000268	M	U	<	0.000268				
M	Cs	<	0.000268	M	Lu	<	0.000268	M	Ru	<	0.000269	M	V	<	0.019855				
O	Cu	<	0.010890	O	Mg	<	0.005445	i	S	<		M	W		0.000473				
M	Dy	<	0.000268	O	Mn	<	0.003267	M	Sb	<	0.006976	M	Y	<	0.002146				
M	Er	<	0.000268	M	Mo		0.000774	O	Sc	<	0.004900	M	Yb	<	0.000536				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 47.87 +4 6 Ti(F)6-2

Chemical Compatibility - Soluble in concentrated HCl, HF, H3PO4 H2SO4 and HNO3. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths or high levels of transition elements unless they are fluorinated). Stable with most inorganic anions with a tendency to hydrolyze forming the hydrated oxide in all dilute acids except HF.

Stability - 2-100 ppb levels stable (Alone or mixed with all other metals) as the Ti(F)6-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the Ti(F)6-2 chemically stable for years in 2-5% HNO3 / trace HF in an LDPE container.

Ti Containing Samples (Preparation and Solution) - Metal (Soluble in H2O / HF caution -powder reacts violently); Oxide - low temperature history anatase or rutile (Dissolved by heating in 1:1:1 H2O / HF / H2SO4); Oxide - high temperature history (~800EC) brookite (fuse in Pt0 with K2S2O7); Ores (fuse in Pt0 with KF + K2S2O7 - no KF if silica not present); Organic Matrices (Dry ash at 450EC in Pt0 and dissolve by heating with 1:1:1 H2O / HF / H2SO4 or fuse ash with pyrosulfate if oxide is as plastic pigment and likely in brookite crystalline form).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 48 amu	14 ppt	N/A	32S16O, 32S14N, 14N16O18O, 14N17N2, 36Ar12C, 48Ca, [96X=2 (where X = Zr, Mo, Ru)]
ICP-OES 323.452 nm	0.0054 / 0.00092 µg/mL	1	Ce, Ar, Ni
ICP-OES 334.941 nm	0.0038 / 0.000028 µg/mL	1	Nb, Ta, Cr, U
ICP-OES 336.121 nm	0.0053 / 0.000034 µg/mL	1	W, Mo, Co

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- June 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Absolute Standards, Inc.

800-368-1131
www.absolutestandards.com



Certified Reference Material CRM



ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT:

Lot #

MS961 R-611124

Part Number:

Solvent: 24002546 Nitric Acid

Lot Number:

041124

Description:

Nickel (NI)

Expiration Date:

041127

Recommended Storage:

Ambient (20 °C)

Nominal Concentration (µg/mL):

1000

NIST Test Number:

6UTB

Weight shown below was diluted to (mL):

249.85 0.002 Flask Uncertainty

2% 5.0 (mL) Nitric Acid

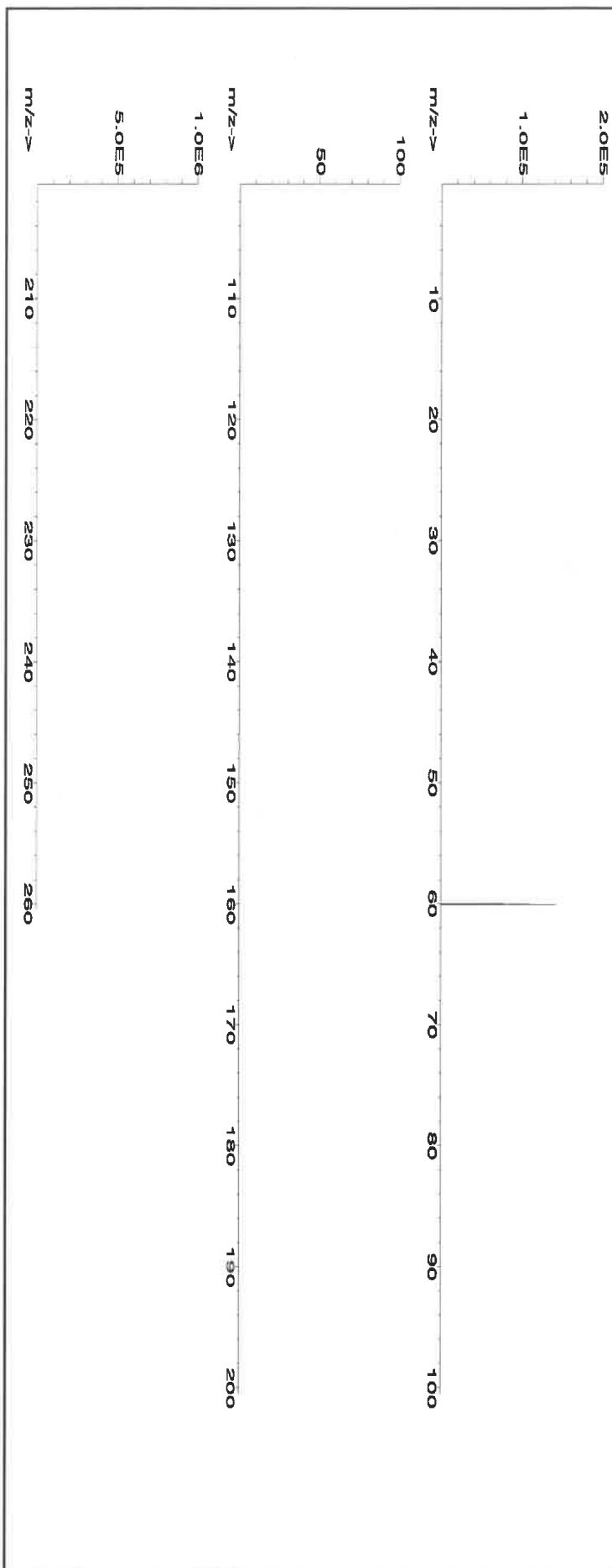
Formulated By:	Brian Geddes	041124
Reviewed By:	Pedro L. Rentas	041124

SDS Information

Compound	Lot	Nominal	Purity	Uncertainty	Assay	Target	Actual	Actual	Uncertainty	(Solvent Safety Info. On Attached pg.)			NIST
	RM#	Number	Conc. (µg/mL)	(%)	Purity (%)	(%)	Weight (g)	Weight (g)	Conc. (µg/mL)	+/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50

1. Nickel(II) nitrate hexahydrate (NI) IN033 NIM052023A1 1000 99.999 0.10 20.2 1.2369 1.2369 1000.0 2.0 13478-00-7 1 mg/m3 or-rat 1620 mg/kg 3136

[1] Spectrum No. 1 [12.374 sec]:58128.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	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	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Ba	<0.02	Gd	<0.02	Mg	<0.01	Os	<0.02	Rh	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Bc	<0.01	Cr	<0.02	Mn	<0.02	Pd	<0.02	Rb	Ru	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Sr	Sm	<0.02	S	<0.02	Tm	<0.02	Y	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Mo	<0.02	Pt	<0.02	Sc	Sn	<0.02	Ta	<0.02	Sn	<0.02	Zn	<0.02
								Nd	<0.02	K	<0.2						Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Absolute Standards, Inc.

800-368-1131
www.absolutestandards.com



Certified Reference Material CRM



ANAB ISO 17034 Accredited
AR-1539 Certificate Number
<https://AbsoluteStandards.com>

CERTIFIED WEIGHT REPORT:

Part Number:

57034

Lot Number:

060624

Description:

Selenium (Se)

Lot # Solvent:

24002546

Nitric Acid

2.0% 40.0 (mL)

Nitric Acid

Expiration Date:

060627

Recommended Storage:

Ambient (20 °C)

Nominal Concentration (µg/mL):

1000

NIST Test Number:

6UTB

Volume shown below was diluted to (mL):

2000.07

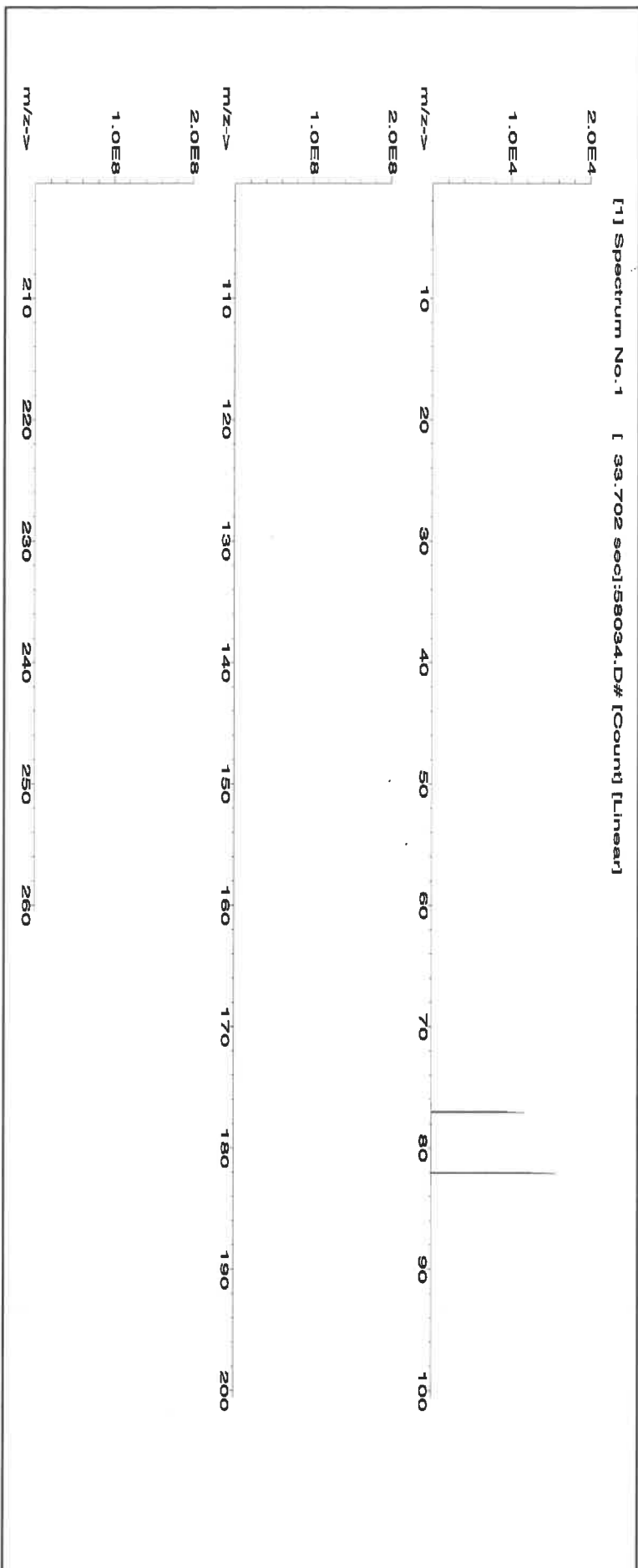
SE-05 Balance Uncertainty
0.100 Flask Uncertainty

Formulated By:	Benson Chan	060624
Reviewed By:	Pedro L. Rantas	060624

Compound

Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	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.)	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	or-tral 6700 mg/kg	3149
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Absolute Standards, Inc.
800-368-1131
www.absolutestandards.com



Certified Reference Material CRM



ANAB ISO 17034 Accredited
AR-1539 Certificate Number
<https://AbsoluteStandards.com>

Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.02	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	Ru	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Sr	<0.02	S	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	Ta	<0.02	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			Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

M5976, M5977

R: 02/22/24

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: CGMO1
Lot Number: T2-MO720876
Matrix: H2O
tr. NH4OH
Value / Analyte(s): 1 000 µg/mL ea:
Molybdenum
Starting Material: Ammonium Molybdate
Starting Material Lot#: 2361
Starting Material Purity: 99.9893%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 998 ± 7 µg/mL
Density: 1.000 g/mL (measured at 20 ± 4 °C)
Assay Information:

Assay Method #1 **998 ± 4 µg/mL**
ICP Assay NIST SRM 3134 Lot Number: 130418

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance.

$$w_i = (1/u_{char i}^2) / (\sum (1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum (w_i^2 (u_{char i}^2))]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000590	M	Eu	<	0.000300	M	Na		0.000879	M	Se	<	0.008000	M	Zn		0.000598
M	Al		0.000563	M	Fe	<	0.006500	M	Nb	<	0.029000	i	Si	<		M	Zr	<	0.001800
M	As	<	0.002100	M	Ga	<	0.000300	i	Nd	<		M	Sm	<	0.000300				
M	Au	<	0.000300	M	Gd	<	0.000300	M	Ni	<	0.008000	M	Sn	<	0.008900				
M	B	<	0.003300	M	Ge	<	0.000300	M	Os	<	0.000590	M	Sr		0.000175				
M	Ba		0.001689	M	Hf	<	0.001800	i	P	<		M	Ta	<	0.004200				
M	Be	<	0.000890	M	Hg	<	0.003300	M	Pb	<	0.000300	M	Tb	<	0.000300				
M	Bi	<	0.000890	M	Ho	<	0.000300	M	Pd	<	0.001800	M	Te	<	0.021000				
O	Ca		0.006334	M	In	<	0.032000	M	Pr	<	0.013000	M	Th	<	0.000300				
O	Cd	<	0.026000	M	Ir	<	0.000300	M	Pt	<	0.000300	O	Tl	<	0.032000				
M	Ce	<	0.008300	M	K		0.130213	M	Rb		0.004575	M	Tl		0.001266				
M	Co		0.000598	M	La	<	0.000300	M	Re	<	0.000300	M	Tm	<	0.000300				
M	Cr		0.000527	O	Li		0.000059	M	Rh	<	0.000300	M	U	<	0.005300				
M	Cs		0.000527	M	Lu	<	0.000300	M	Ru	<	0.079000	M	V	<	0.000890				
M	Cu		0.002252	M	Mg		0.000563	i	S	<		M	W		0.087982				
M	Dy	<	0.000300	M	Mn	<	0.005900	M	Sb		0.001513	M	Y	<	0.000300				
M	Er	<	0.000300	s	Mo	<		M	Sc	<	0.001200	M	Yb	<	0.000300				

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference
n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 95.94 +6 6,7,8,9

[MoO4]-2(chemical form as received)

Chemical Compatibility -Mo is received in a NH4OH matrix giving the operator the option of using HCl or HF to stabilize acidic solutions. The [MoO4]-2 is soluble in concentrated HCl [MoOCl5]-2, dilute HF / HNO3 [MoOF5]-2 and basic media [MoO4]-2. Stable at ppm levels with some metals provided it is fluorinated. Do not mix with Alkaline or Rare Earths when HF is present. Stable with most inorganic anions provided it is in the [MoO4]-2 chemical form.

Stability - 2-100 ppb levels stable (alone or mixed with all other metals that are at comparable levels) as the [MoOF5]-2 for months in 1% HNO3 / LDPE container. 1-10,000 ppm single element solutions as the [MoO4]-2 chemically stable for years in 1% NH4OH in a LDPE container.

Mo Containing Samples (Preparation and Solution) -Metal (Soluble in HF / HNO3 or hot dilute HCl); Oxide (soluble in HF or NH4OH) ; Organic Matrices (Dry ash at 450EC in Pt0 and dissolve oxide with HF or HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 95 amu	3 ppt	n/a	40Ar39K16O,79Br16O,190Os2+,190Pt2+
ICP-OES 202.030 nm	0.008 / 0.0002 µg/mL	1	Os, Hf
ICP-OES 203.844 nm	0.012 / 0.002 µg/mL	1	
ICP-OES 204.598 nm	0.012 / 0.001 µg/mL	1	Ir, Ta

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6798; 540.585.3030, Fax: 540.585.3012; info@inorganicventures.com; inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 17, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 17, 2027

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Supervisor, Product Documentation



Certificate Approved By:

Michael Booth
Director, Technical



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





MS981

R: 6/11/24



CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

57092
060724
Uranium (U)

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test Number:

060727
Ambient (20 °C)
1000
6UTB

Volume shown below was diluted to (mL): 2000.07

5E-05 Balance Uncertainty
0.100 Flask Uncertainty

Lot # Solvent:
24002546 Nitric Acid

2.0% Nitric Acid
40.0 (mL)

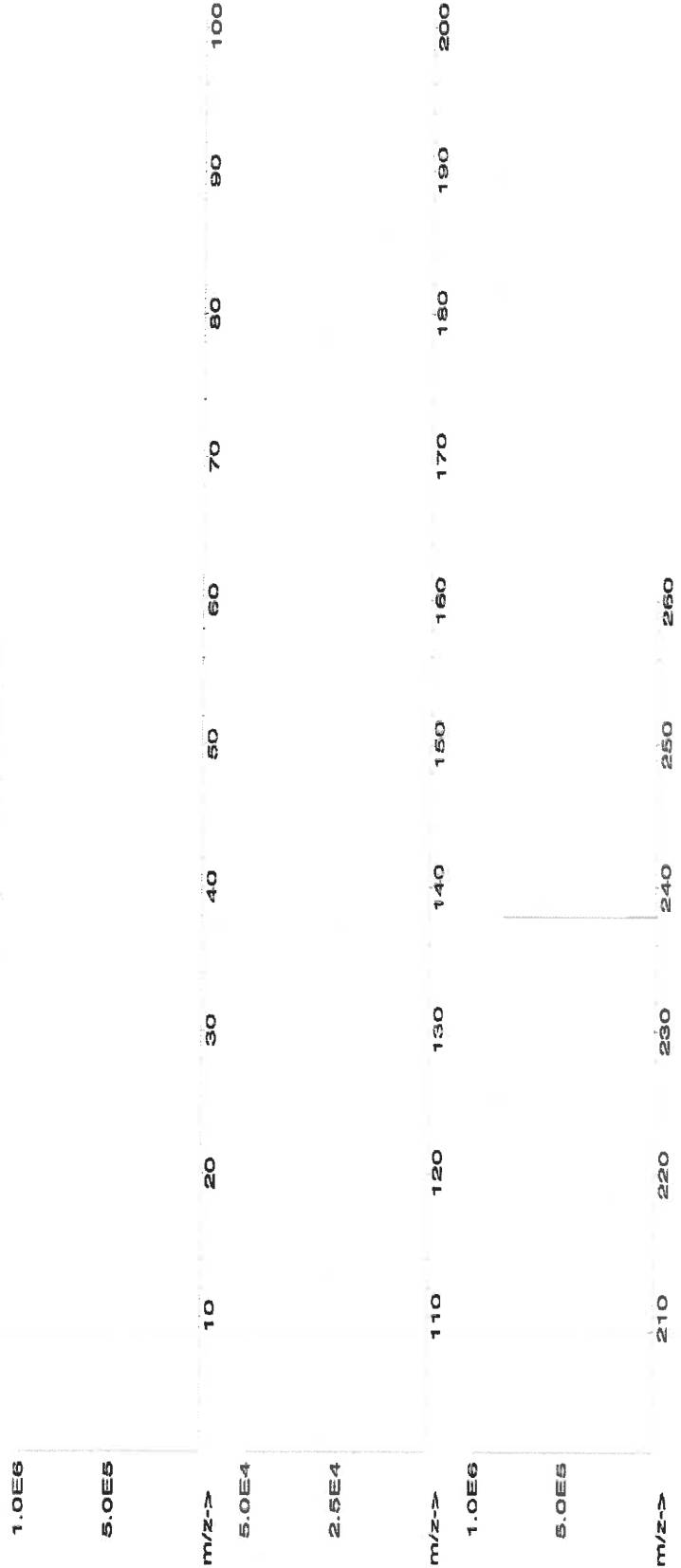
<i>Giovanni Esposito</i>	
Formulated By:	Giovanni Esposito
<i>Pedro L. Rentas</i>	
Reviewed By:	Pedro L. Rentas

SDS Information

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	(Solvent Safety Info. On Attached pg.)		
										CAS#	OSHA PEL (TWA)	LD50

1. Uranyl nitrate hexahydrate (U)	58192	041524	0.1000	200.0	0.084	1000	10001.5	1000.0	2.2	13620-83-7	0.05 mg/m3	orl-rat 1040 mg/kg
												NIST SRM 3164

[1] Spectrum No.1 [23.254 sec]:57092.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS ($\mu\text{g/mL}$)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.02	Os	<0.01	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.02	Hg	<0.2	P	<0.2	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
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Certified Reference Material CRM

45983

R: 6/11/24

57040
071423
Zirconium (Zr)

Expiration Date:
Recommended Storage:
Nominal Concentration (µg/mL):
NIST Test Number:
Volume shown below was diluted to (mL):

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

Lot # Solvent:
21110221 Nitric Acid

2.0% Nitric Acid
40.0 (mL)

Formulated By:	Benson Chan
Reviewed By:	Pedro L. Rentas

Expanded
Uncertainty
+/- (µg/mL)

Final
Conc. (µg/mL)

Nominal
Conc. (µg/mL)

Initial
Vol. (mL)

Dilution
Factor

Part
Number

Lot
Number

Volume shown below was diluted to (mL):

5E-05
0.058

2.000.02
6UTB

1000

NIST
SRM

LD50

CAS#

OSHA PEL (TWA)

13520-92-8

NA

NA

NA

NA

NA

NA

NA

NA

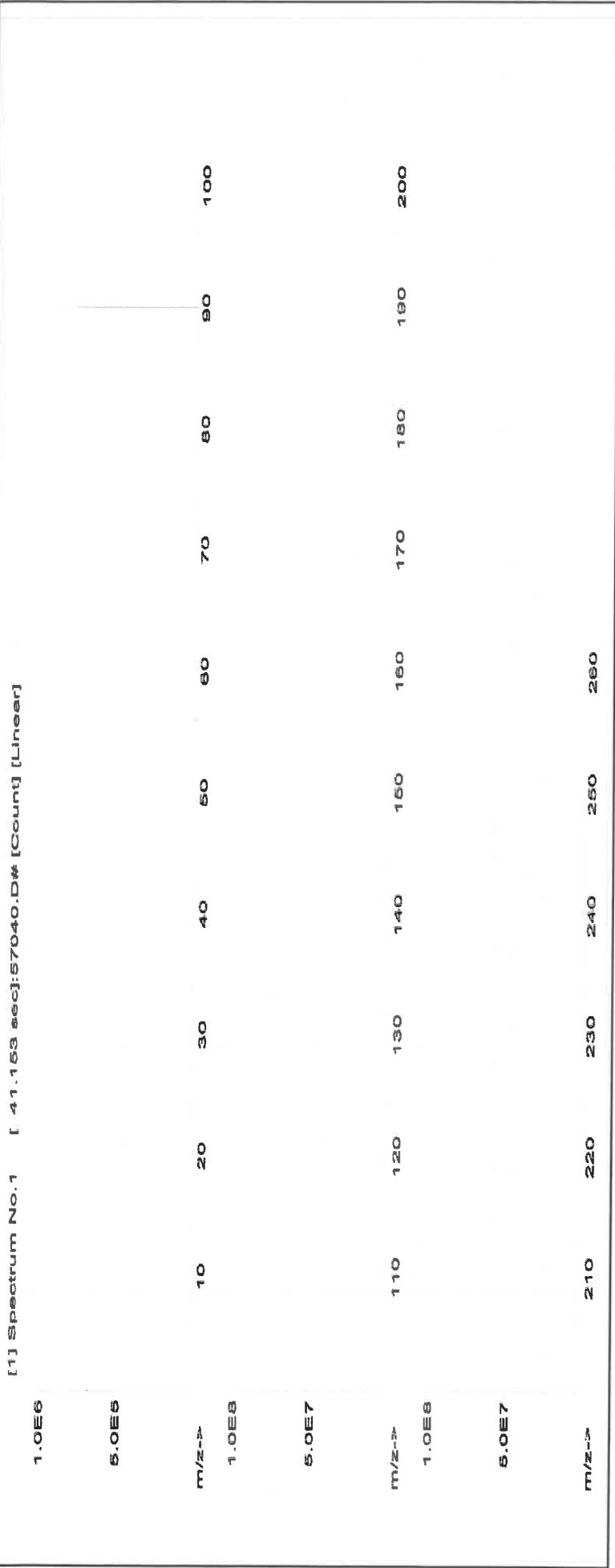
NA

NA

NA

NA

1. Zirconyl chloride octahydrate (Zr) 58140 070621 0.1000 200.0 0.084 1000 10000.3 1000.0 2.2 13520-92-8 NA NA NA





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS ($\mu\text{g/mL}$)																			
Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.02	Os	<0.01	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.2	Fe	<0.02	Hg	<0.2	P	<0.2	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Ta	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

[Signature]

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
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- * All standard containers are meticulously cleaned prior to use.
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- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

[Faint text/scan artifacts]

8/19/24, M6055

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F: 540-585-3012

info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories".

Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: IV-STOCK-12
Lot Number: U2-MEB734294
Matrix: 5% (v/v) HNO₃
Value / Analyte(s): 10 µg/mL ea:
Barium, Beryllium,
Bismuth, Cerium,
Cobalt, Indium,
Lithium, Nickel,
Lead, Uranium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Barium, Ba	10.01 ± 0.04 µg/mL	Beryllium, Be	10.01 ± 0.05 µg/mL
Bismuth, Bi	10.01 ± 0.06 µg/mL	Cerium, Ce	10.01 ± 0.04 µg/mL
Cobalt, Co	10.01 ± 0.05 µg/mL	Indium, In	10.01 ± 0.04 µg/mL
Lead, Pb	10.00 ± 0.04 µg/mL	Lithium, Li	10.01 ± 0.04 µg/mL
Nickel, Ni	10.01 ± 0.04 µg/mL	Uranium, U	10.01 ± 0.05 µg/mL

Density: 1.025 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Ba	ICP Assay	3104a	140909
Ba	Calculated		See Sec. 4.2
Ba	Gravimetric		See Sec. 4.2
Be	ICP Assay	3105a	090514
Be	Calculated		See Sec. 4.2
Bi	ICP Assay	3106	180815
Ce	ICP Assay	3110	160830
Ce	EDTA	928	928
Ce	Calculated		See Sec. 4.2
Co	ICP Assay	3113	190630
Co	EDTA	928	928
Co	Calculated		See Sec. 4.2
In	ICP Assay	3124a	110516
In	EDTA	928	928
In	Calculated		See Sec. 4.2
Li	ICP Assay	3129a	100714
Li	Calculated		See Sec. 4.2
Li	Gravimetric		See Sec. 4.2
Ni	ICP Assay	3136	120619
Ni	EDTA	928	928
Ni	Calculated		See Sec. 4.2
Pb	ICP Assay	3128	101026
Pb	EDTA	928	928
Pb	Calculated		See Sec. 4.2
U	ICP Assay	traceable to 3164	R2-U689597
U	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i})^2 / (\sum (1/(u_{\text{char } i})^2))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{ts}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum ((w_i)^2 (u_{\text{char } i})^2)]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{ts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{ts}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{ts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, <https://www.inorganicventures.com/terms-and-conditions-sale>. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.
- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

June 21, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- June 21, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



Certificate of Analysis

R: 08/22/24 M6058, M6059

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: CHEM-CLP-4
Lot Number: V2-MEB746172
Matrix: 3% (v/v) HNO₃
3% (v/v) HF
Value / Analyte(s): 1 000 µg/mL ea:
Boron, Molybdenum,
Silicon, Tin,
Titanium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
Boron, B	1 000 ± 5 µg/mL	Molybdenum, Mo	1 000 ± 5 µg/mL
Silicon, Si	1 000 ± 7 µg/mL	Tin, Sn	1 000 ± 5 µg/mL
Titanium, Ti	1 000 ± 6 µg/mL		

Density: 1.032 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
B	ICP Assay	3107	190605
B	Calculated		See Sec. 4.2
Mo	ICP Assay	traceable to 3134	U2-MO739068
Si	ICP Assay	Traceable to 3150	S2-SI702546
Sn	ICP Assay	3161a	140917
Ti	ICP Assay	traceable to 3162a	T2-TI725816

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{\text{CRM/RM}}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{\text{CRM/RM}} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{\text{char } i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{\text{char } i}^2) / (\sum (1/u_{\text{char } i}^2))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char}} = [\sum (w_i)^2 (u_{\text{char } i})^2]^{1/2}$ where $u_{\text{char } i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{\text{CRM/RM}}$, where one method of characterization is used is the mean of individual results:

$$X_{\text{CRM/RM}} = (X_a) (u_{\text{char } a})$$

X_a = mean of Assay Method A with

$u_{\text{char } a}$ = the standard uncertainty of characterization Method A

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{its}}^2 + u_{\text{ts}}^2)^{1/2}$$

k = coverage factor = 2

$u_{\text{char } a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{its} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™)

see the Limited License to Use PCRM™ in the Inorganic Ventures [Terms and Conditions of Sale](https://www.inorganicventures.com/terms-and-conditions-sale).

<https://www.inorganicventures.com/terms-and-conditions-sale>. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.

- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.

- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 12, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **August 12, 2029**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Joseph Burns
Custom VS Manager



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





Certified Reference Material CRM



CERTIFIED WEIGHT REPORT:

Part Number: **57040**
Lot Number: **071423**
Description: **Zirconium (Zr)**

Lot # **21110221**
Solvent: **Nitric Acid**

2.0% 40.0 (mL) Nitric Acid

Expiration Date: **071426**
Recommended Storage: **Ambient (20 °C)**
Nominal Concentration (µg/mL): **1000**
NIST Test Number: **6UTB**

Volume shown below was diluted to (mL): **2000.02** 5E-05 Balance Uncertainty 0.058 Flask Uncertainty

Formulated By:	Benson Chan	071423
Reviewed By:	Pedro L. Renteria	071423

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LDSO	NIST SRM
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1. **Zirconyl chloride octahydrate (Zr)** 58140 070621 0.1000 200.0 0.084 1000 10000.3 1000.0 2.2 13520-82-8 NA NA NA

[1] Spectrum No. 1 [41.163 sec]: 57040.DW [Count] [Linear]

1.OE6	m/z->	10	20	30	40	50	60	70	80	90	100
5.OE6	m/z->	110	120	130	140	150	160	170	180	190	200
1.OE8	m/z->	210	220	230	240	250	260				
5.OE7	m/z->										



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Tc	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Ti	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Ru	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Sr	<0.02	S	<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	Sn	<0.02	Sb	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Tl	<0.02	Zr	<0.02
(T) = Target analyte																			

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

Part Number: 58112
Lot # 24012496
Description: Magnesium (Mg) Nitric Acid

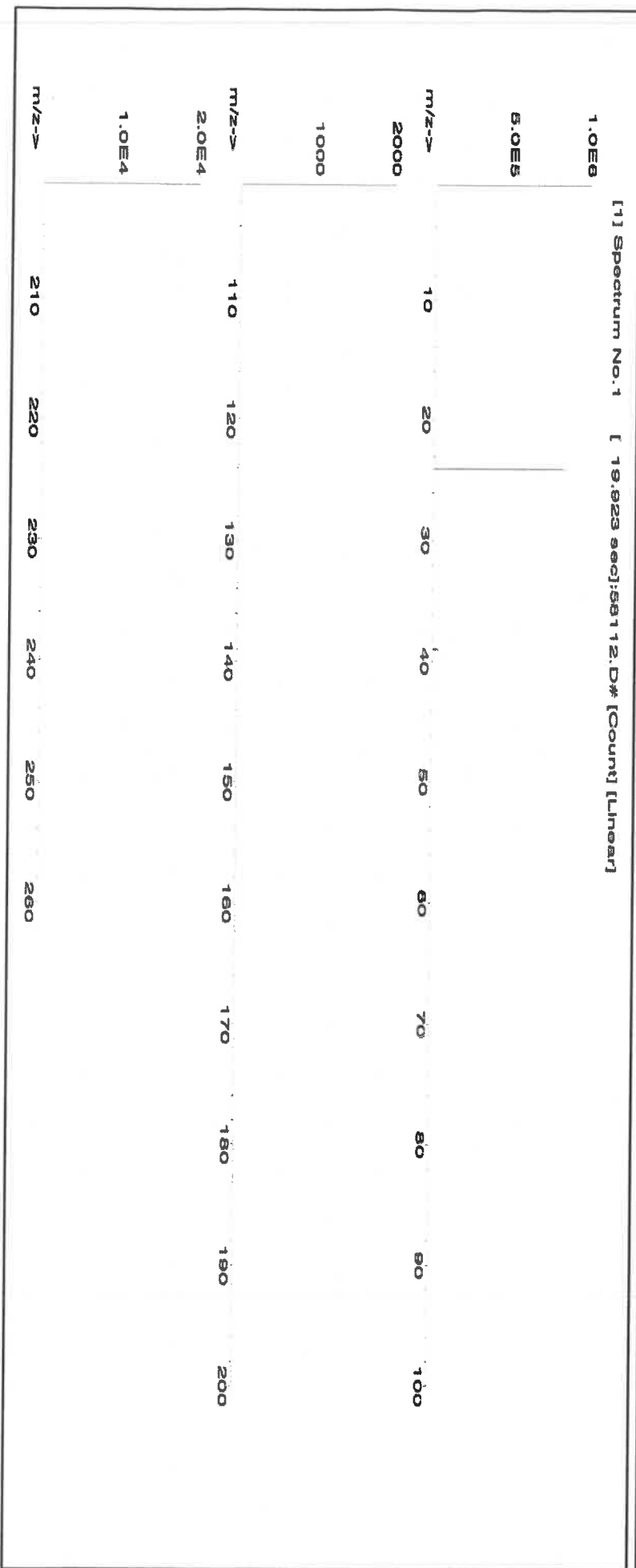
Expiration Date: 11/13/25
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 10000
NIST Test Number: 6LUB
Weight shown below was diluted to (mL): 2000.07
5E-05 Balance Uncertainty
0.100 Flask Uncertainty

<i>Giovanni Esposito</i>	
Formulated By:	Giovanni Esposito
Reviewed By:	Pedro L. Rentas
	112124

Compound	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM

1. Magnesium nitrate hexahydrate (Mg) IN030 MG000023A1 10000 99.999 0.10 8.51 234.9183 234.9459 10001.2 20.0 13446-18-9 NA off-rat 5440 mg/kg 3131a

[1] Spectrum No. 1 [19.823 sec]:58112.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Rc	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	T	Os	<0.02	Rb	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Ru	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Sm	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sc	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2			Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



Certified Reference Material CRM



CERTIFIED WEIGHT REPORT:

Part Number:
Lot Number:
Description:

58025
101124
Manganese (Mn)

Lot #
Solvent: Nitric Acid

24002546
2%
80.0 (mL)
Nitric Acid

<i>Giovanni Esposito</i>	
Formulated By:	Giovanni Esposito
	101124
Reviewed By:	<i>Pedro L. Renteria</i>
	Pedro L. Renteria
	101124

Expiration Date: 101127
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 4000.2
SE-05 Balance Uncertainty
0.10 Flask Uncertainty

Compound

RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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SDS Information

(Solvent Safety Info. On Attached pg.)
NIST

1. Manganese(II) nitrate hydrate (Mn) IN031 MMN02020A1 1000 99.999 0.10 20.8 19.2322 19.2344 1000.1 2.0 15710-66-4 5 mg/m3 or-rel >300mg/kg 3132

[1] Spectrum No.1 [34.243 sec]:57025.D# [Count] [Linear]

5.0E6													
2.5E6													
m/z->	10	20	30	40	50	60	70	80	90	100			
1.0E6													
5.0E7													
m/z->	110	120	130	140	150	160	170	180	190	200			
1.0E6													
5.0E7													
m/z->	210	220	230	240	250	260							



Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	T	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Certificate of Analysis

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

M6137
R-71013124

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGSI1
Lot Number: V2-SI744713
Matrix: tr. HNO₃
tr. HF
Value / Analyte(s): 1 000 µg/mL ea:
Silicon
Starting Material: Silica
Starting Material Lot#: 1771
Starting Material Purity: 99.9981%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 999 ± 6 µg/mL
Density: 1.003 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	999 ± 5 µg/mL ICP Assay NIST SRM Traceable to 3150 Lot Number: S2-SI702546
Assay Method #2	1000 ± 7 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i})^2 / (\sum (1/(u_{char\ i})^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum (w_i)^2 (u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k (u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000310	M	Eu	<	0.000310	O	Na		0.001656	M	Se	<	0.022000	M	Zn	<	0.002500	
M	Al		0.010787	M	Fe	<	0.027000	M	Nb	<	0.001300	s	Si	<			O	Zr	<	0.001900
M	As	<	0.001900	M	Ga	<	0.001300	M	Nd	<	0.000310	M	Sm	<	0.000310					
M	Au	<	0.000910	M	Gd	<	0.000310	M	Ni	<	0.005500	M	Sn		0.000096					
M	B		0.016180	M	Ge	<	0.001900	M	Os	<	0.000610	O	Sr		0.000092					
M	Ba		0.000096	M	Hf		0.000423	i	P	<		M	Ta		0.002542					
O	Be	<	0.000570	M	Hg	<	0.000610	M	Pb	<	0.000310	M	Tb	<	0.000310					
M	Bi	<	0.000310	M	Ho	<	0.000610	M	Pd	<	0.000610	M	Te	<	0.000910					
O	Ca		0.011557	M	In	<	0.000310	M	Pr	<	0.000310	M	Th	<	0.001900					
M	Cd	<	0.000310	M	Ir	<	0.000310	M	Pt	<	0.000310	M	Ti		0.001078					
M	Ce	<	0.000610	O	K		0.000577	M	Rb	<	0.009100	M	Tl	<	0.000310					
M	Co	<	0.001600	M	La	<	0.000310	M	Re	<	0.000310	M	Tm	<	0.000310					
M	Cr	<	0.010000	O	Li	<	0.000460	M	Rh	<	0.000310	M	U	<	0.000310					
M	Cs	<	0.000310	M	Lu	<	0.000310	M	Ru	<	0.000310	O	V	<	0.001300					
M	Cu	<	0.002500	O	Mg		0.001348	O	S	<	0.570000	M	W	<	0.001900					
M	Dy	<	0.000310	M	Mn	<	0.002500	M	Sb	<	0.000310	M	Y	<	0.000310					
M	Er	<	0.000310	M	Mo	<	0.000310	O	Sc	<	0.000590	M	Yb	<	0.000310					

M - Checked by ICP-MS

O - Checked by ICP-OES

i - Spectral Interference

n - Not Checked For

s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, <https://www.inorganicventures.com/terms-and-conditions-sale>. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form In Solution - 28.09 +4 6 Si(OH)x(F)y2-

Chemical Compatibility -Soluble in HCl, HF, H3PO4 H2SO4 and HNO3 as the Si(OH)x(F)y2-. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F- away (i.e. Do not mix with Alkaline or Rare Earths, or high levels of transition elements unless they are fluorinated. Stable with most inorganic anions with a tendency to hydrolyze forming silicic acid (silicic acid is soluble up to ∼100 ppm in water) in all dilute acids except HF.

Stability - 2-100 ppb levels - stability unknown - (alone or mixed with all other metals) as the Si(OH)x(F)y2-. 1-10,000 ppm single element solutions as the Si(OH)x(F)y2- chemically stable for years in 2-5 % HNO3 / trace HF in a LDPE container.

Si Containing Samples (Preparation and Solution) -Metal (Soluble in 1:1:1 H2O / HF / HNO3); Oxide - SiO2, amorphous (dissolve by heating in 1:1:1 H2O / HF / HNO3); Oxide - quartz (fuse in Pt0 with Na2CO3); Geological Samples(fuse in Pt0with Na2CO3 followed by HCl solution of the fuseate); Organic Matrices containing silicates and non volatile silicon compounds (dry ash at 4500C in Pt0 and dissolve by gently warming with 1:1:1 H2O / HF / H2SO4 or fuse / ash with Na2CO3 and dissolve fuseate with HCl / H2O); Silicone Oils - dimethyl silicones depolymerize to form volatile monomer units when heated (Measure directly in alcoholic KOH / xylene mixture where sample is treated first with the KOH at 60-1000C to "unzip" the Si- O-Si polymeric structure or digest with conc. H2SO4 / H2O2 followed by cooling and dissolution of the dehydrated silica with HF.) Note that the direct analysis of silicone oils in an organic solvent will result in false high results due to high vapor pressure of volatile monomer units like hexamethylcyclotrisiloxane. The KOH forms the K2+Si(CH3)2O= salt which is not volatile at room temperature.

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 28 amu	4000 - 8000 ppt	N/A	N2, 12C16O
ICP-OES 212.412 nm	0.02/0.01 µg/mL	1	Hf, Os, Mo, Ta
ICP-OES 251.611 nm	0.012/0.003 µg/mL	1	Ta, U, Zn, Th
ICP-OES 288.158 nm	0.03/0.004 µg/mL	1	Ta, Ce, Cr, Cd, Th

HF Note: This standard should not be prepared or stored in glass.

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; Inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

July 10, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- July 10, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor



Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





CERTIFIED WEIGHT REPORT:

Part Number: **58111** Lot # **R-1113125**
Lot Number: **072424** Solvent: **24002546 Nitric Acid**
Description: **Sodium (Na)**

Expiration Date: **072427** 2% 80.0 Nitric Acid (mL)

Recommended Storage: **Ambient (20 °C)**

Nominal Concentration (µg/mL): **10000**

NIST Test Number: **6UTB** 5E-05 Balance Uncertainty

Weight shown below was diluted to (mL): **4000.2** 0.10 Flask Uncertainty

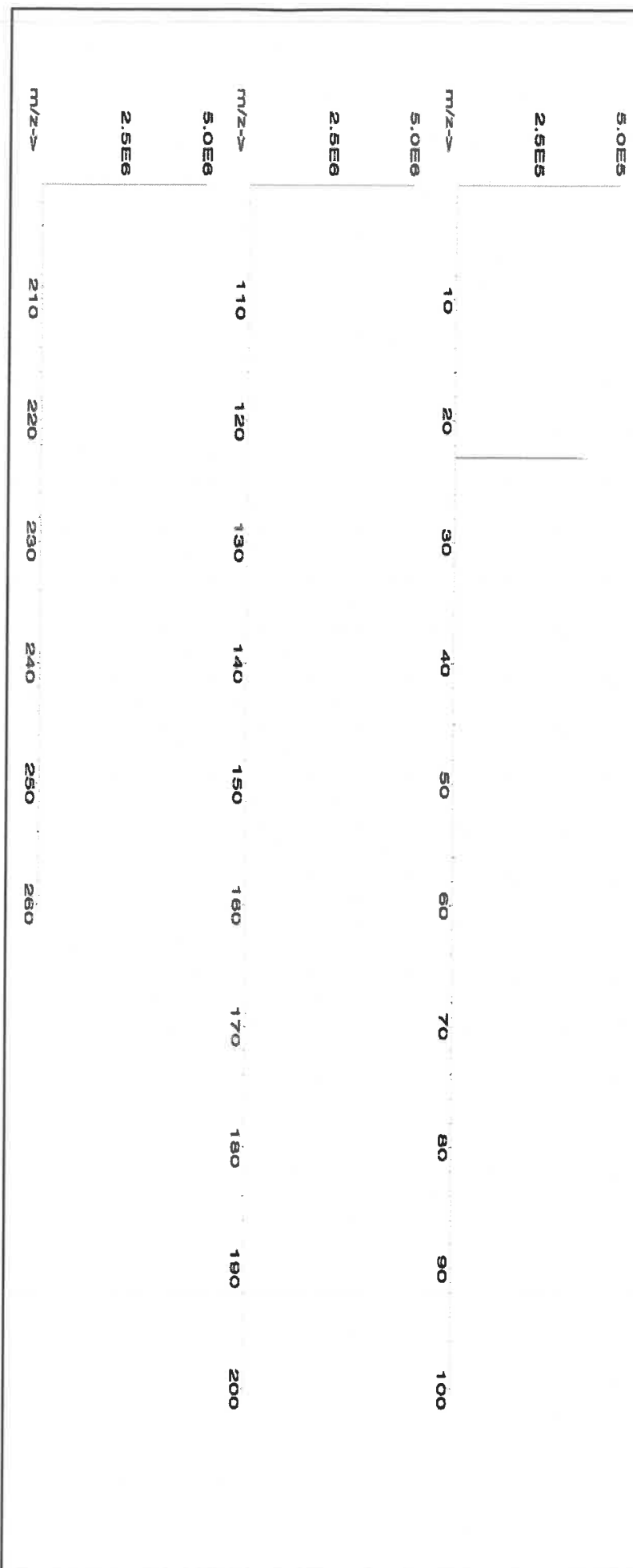
Formulated By:	<i>Benson Chan</i>	072424
Reviewed By:	<i>Pedro L. Renteria</i>	072424

SDS Information

Compound	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
----------	------------	-----------------------	------------	------------------------	-----------	-------------------	-------------------	----------------------	----------------------------------	------	----------------	------	----------

1. Sodium nitrate (Na) IN036 NAV01201511 10000 99.999 0.10 26.9 148.7096 ##### 10000.0 20.0 7631-99-4 5 mg/m3 orl-rat 3430 mg/kg 3152a

[1] Spectrum No. 1 [8.935 sec]: 58111.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	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	Tl	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



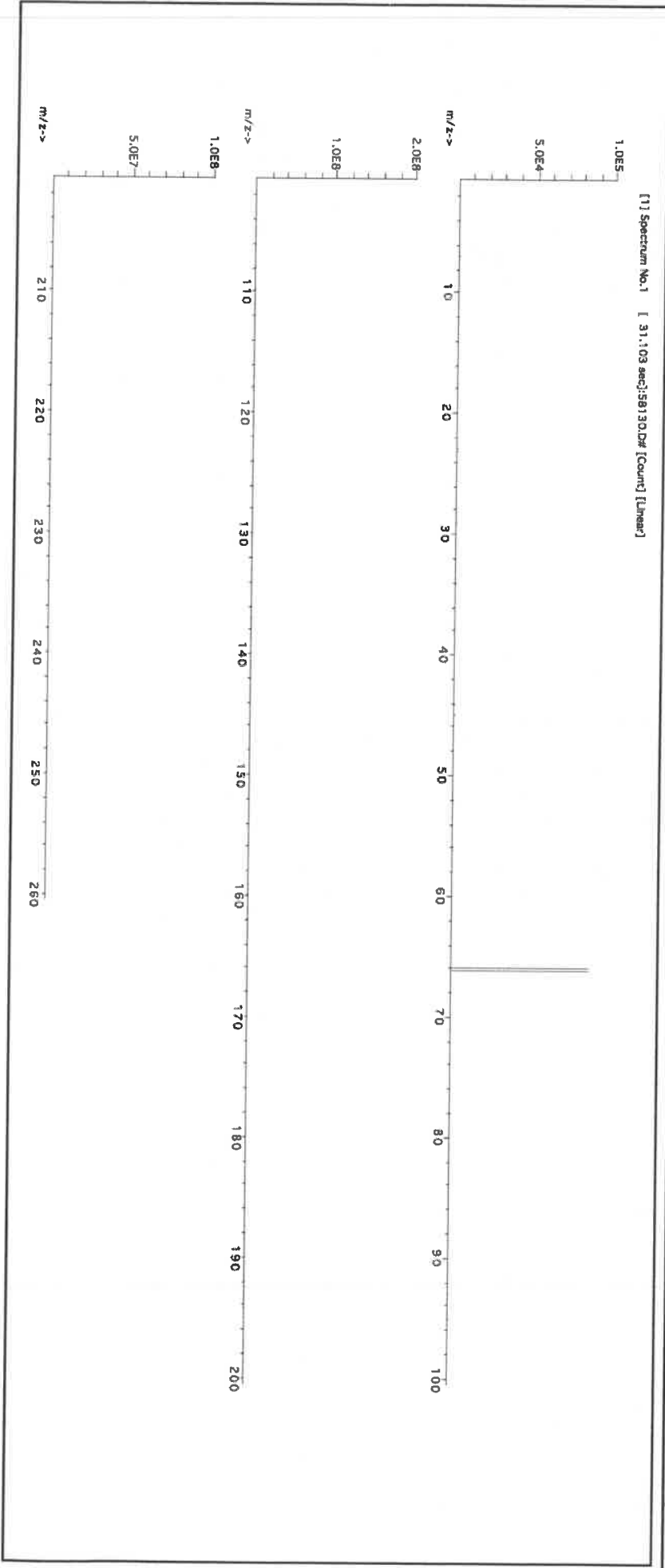
CERTIFIED WEIGHT REPORT:

Part Number: 58030
Lot Number: 121724
Description: Zinc (Zn)
Expiration Date: 121727
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 2000.1
Balance Uncertainty: 5E-05
Flask Uncertainty: 0.10

Lot # 24012496
Nitric Acid
2%
40.0 (mL)
Nitric Acid

Aleah O Brady
Formulated By: Aleah O'Brady
Reviewed By: Pedro L. Rentias
121724

SDS Information									
Expanded					(Solvent Safety Info. On Attached pg.)				
Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)
1. Zinc nitrate hexahydrate (Zn)	IN016	ZNE032021A1	1000	99.999	0.10	24.3	8.2308	8.2311	1000.0
							2.0	10196-18-6	1 mg/m3
									or-rat 1190mg/kg 3168





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Bu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

R: 4/20/21

Instructions for QATS Reference Material: *Inorganic ICV Solutions*

QATS LABORATORY INORGANIC REFERENCE MATERIAL
INITIAL CALIBRATION VERIFICATION SOLUTIONS
(ICV1, ICV5, AND ICV6)

MG150

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Metals in Dilute Acidic or
Cyanide in Basic Aqueous Solutions
HAZARDOUS MATERIAL

Safety Data Sheets
Available Upon Request

(A) SAMPLE DESCRIPTION

Enclosed is a set of one (1) or more Aqueous Inorganic Reference Materials containing various analyte concentrations. ICV1 and ICV5 are in a matrix of dilute nitric acid. ICV6 is in a matrix of dilute basic solution. For the reference material source in reporting ICVs use "USEPA". For the reference material lot number for the ICV1, ICV5, and ICV6 solutions use "ICV1-1014", "ICV5-0415", and "ICV6-0400", respectively.

(B) BREAKAGE OR MISSING ITEMS

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
APTIM Federal Services, LLC
2700 Chandler Avenue - Building C
Las Vegas, NV 89120

(C) ANALYSIS OF SAMPLES

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP, AA, and Cyanide colorimetric instruments, and are to be used with the CLP SOWs and revisions. The values for each element in the ICVs are listed below in µg/L (ppb) for the resulting solution(s) after the dilution of the concentrate(s) according to the following instructions. Use Class 'A' glassware to prepare the solution(s).

ICV1-1014 For ICP-AES analysis, use a 10-fold dilution by pipetting 10 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.





QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
"An ISO 9001:2015 Certified Program"

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) K₂Cr₂O₇ 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 K₃Fe(CN)₆, Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

NOTE: USE TYPE II WATER AND HIGH-PURITY ACIDS FOR ALL DILUTIONS.

(D) CERTIFIED CONCENTRATIONS OF QATS ICV1, ICV5, AND ICV6 SOLUTIONS

ICV1-1014		
Element	Concentration (µg/L) (after 10-fold dilution)	Concentration (µg/L) (after 50-fold dilution)
Al	2500	500
Sb	1000	200
As	1000	200
Ba	520	100
Be	510	100
Cd	510	100
Ca	10000	2000
Cr	520	100
Co	520	100
Cu	510	100
Fe	10000	2000
Pb	1000	200
Mg	6000	1200
Mn	520	100
Ni	530	110
K	9900	2000
Se	1000	200
Ag	250	50
Na	10000	2000
Tl	1000	210
V	500	100
Zn	1000	200

ICV5-0415		ICV6-0400	
Element	Concentration (µg/L) (after 100-fold dilution)	Analyte	Concentration (µg/L) (after 100-fold dilution)
Hg	4.0	CN ⁻	99

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

avantor™



M6151

R → 11/15/25

Material No.: 9530-33
Batch No.: 22G2862015
Manufactured Date: 2022-06-15
Retest Date: 2027-06-14
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
ACS – Assay (as HCl) (by acid–base titrn)	36.5 – 38.0 %	37.9 %
ACS – Color (APHA)	≤ 10	5
ACS – Residue after Ignition	≤ 3 ppm	< 1 ppm
ACS – Specific Gravity at 60°/60°F	1.185 – 1.192	1.191
ACS – Bromide (Br)	≤ 0.005 %	< 0.005 %
ACS – Extractable Organic Substances	≤ 5 ppm	< 1 ppm
ACS – Free Chlorine (as Cl ₂)	≤ 0.5 ppm	< 0.5 ppm
Phosphate (PO ₄)	≤ 0.05 ppm	< 0.03 ppm
Sulfate (SO ₄)	≤ 0.5 ppm	< 0.3 ppm
Sulfite (SO ₃)	≤ 0.8 ppm	0.3 ppm
Ammonium (NH ₄)	≤ 3 ppm	< 1 ppm
Trace Impurities – Arsenic (As)	≤ 0.010 ppm	< 0.003 ppm
Trace Impurities – Aluminum (Al)	≤ 10.0 ppb	1.3 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 3.0 ppb
Trace Impurities – Barium (Ba)	≤ 1.0 ppb	0.2 ppb
Trace Impurities – Beryllium (Be)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Bismuth (Bi)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Boron (B)	≤ 20.0 ppb	< 5.0 ppb
Trace Impurities – Cadmium (Cd)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Calcium (Ca)	≤ 50.0 ppb	163.0 ppb
Trace Impurities – Chromium (Cr)	≤ 1.0 ppb	0.7 ppb
Trace Impurities – Cobalt (Co)	≤ 1.0 ppb	< 0.3 ppb
Trace Impurities – Copper (Cu)	≤ 1.0 ppb	< 0.1 ppb
Trace Impurities – Gallium (Ga)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Germanium (Ge)	≤ 3.0 ppb	< 2.0 ppb
Trace Impurities – Gold (Au)	≤ 4.0 ppb	0.6 ppb
Heavy Metals (as Pb)	≤ 100 ppb	< 50 ppb
Trace Impurities – Iron (Fe)	≤ 15 ppb	6 ppb

>>> Continued on page 2 >>>

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA-ANALYZED® Reagent
For Trace Metal Analysis

 **avantorsm**



Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result
Trace Impurities – Lead (Pb)	≤ 1.0 ppb	< 0.5 ppb
Trace Impurities – Lithium (Li)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Magnesium (Mg)	≤ 10.0 ppb	2.9 ppb
Trace Impurities – Manganese (Mn)	≤ 1.0 ppb	< 0.4 ppb
Trace Impurities – Mercury (Hg)	≤ 0.5 ppb	0.1 ppb
Trace Impurities – Molybdenum (Mo)	≤ 10.0 ppb	< 3.0 ppb
Trace Impurities – Nickel (Ni)	≤ 4.0 ppb	< 0.3 ppb
Trace Impurities – Niobium (Nb)	≤ 1.0 ppb	0.8 ppb
Trace Impurities – Potassium (K)	≤ 9.0 ppb	< 2.0 ppb
Trace Impurities – Selenium (Se), For Information Only		< 1.0 ppb
Trace Impurities – Silicon (Si)	≤ 100.0 ppb	< 10.0 ppb
Trace Impurities – Silver (Ag)	≤ 1.0 ppb	0.5 ppb
Trace Impurities – Sodium (Na)	≤ 100.0 ppb	2.3 ppb
Trace Impurities – Strontium (Sr)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Tantalum (Ta)	≤ 1.0 ppb	1.6 ppb
Trace Impurities – Thallium (Tl)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities – Tin (Sn)	≤ 5.0 ppb	4.0 ppb
Trace Impurities – Titanium (Ti)	≤ 1.0 ppb	1.5 ppb
Trace Impurities – Vanadium (V)	≤ 1.0 ppb	< 0.2 ppb
Trace Impurities – Zinc (Zn)	≤ 5.0 ppb	0.8 ppb
Trace Impurities – Zirconium (Zr)	≤ 1.0 ppb	0.3 ppb

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5–38.0%
BAKER INSTRA–ANALYZED® Reagent
For Trace Metal Analysis

 **avantor**™

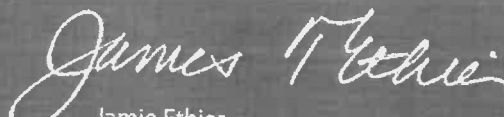


Material No.: 9530-33
Batch No.: 22G2862015

Test	Specification	Result
------	---------------	--------

For Laboratory, Research, or Manufacturing Use
Product Information (not specifications):
Appearance (clear, fuming liquid)
Meets ACS Specifications
Storage Condition: Store below 25 °C.

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC


Jamie Ethier
Vice President Global Quality

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

R → 1/7/23
M6153

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGSR10
Lot Number: V2-SR745329
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 10 000 µg/mL ea:
Strontium
Starting Material: Strontium Carbonate
Starting Material Lot#: 2647
Starting Material Purity: 99.9960%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 10081 ± 39 µg/mL
Density: 1.030 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1 **10059 ± 50 µg/mL**
ICP Assay NIST SRM Traceable to 3153a Lot Number: K2-SR650985

Assay Method #2 **10087 ± 26 µg/mL**
EDTA NIST SRM 928 Lot Number: 928

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum (1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (z) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum (w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (z) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.000960	M	Eu	<	0.000480	O	Na		0.002964	M	Se	<	0.042000	M	Zn		0.004560
M	Al		0.003420	O	Fe		0.013225	M	Nb	<	0.000480	O	Si		0.012997	M	Zr		0.001847
M	As	<	0.007200	M	Ga	<	0.002900	M	Nd	<	0.000480	M	Sm	<	0.000480				
M	Au	<	0.003900	M	Gd	<	0.000480	O	Ni		0.001482	M	Sn	<	0.000480				
O	B	<	0.003200	M	Ge	<	0.004800	M	Os	<	0.001500	s	Sr	<					
M	Ba		0.638494	M	Hf	<	0.000480	O	P	<	0.017000	M	Ta	<	0.000480				
O	Be	<	0.000450	M	Hg	<	0.000960	M	Pb		0.010717	M	Tb	<	0.000480				
M	Bi	<	0.002000	M	Ho	<	0.000480	M	Pd	<	0.002000	M	Te	<	0.016000				
O	Ca		0.025083	M	In	<	0.008600	M	Pr		0.000547	M	Th	<	0.000480				
M	Cd	<	0.000960	M	Ir	<	0.000480	M	Pt	<	0.000480	M	Ti		0.004560				
M	Ce		0.000661	O	K		0.025083	M	Rb	<	0.003400	M	Tl	<	0.000480				
M	Co		0.001527	M	La	<	0.000480	M	Re	<	0.000480	M	Tm		0.004332				
O	Cr	<	0.004700	O	Li	<	0.005600	O	Rh	<	0.013000	M	U	<	0.000480				
M	Cs	<	0.000480	M	Lu	<	0.000480	M	Ru	<	0.000960	M	V	<	0.000960				
O	Cu	<	0.003800	O	Mg		0.001048	O	S	<	0.045000	M	W	<	0.002400				
M	Dy	<	0.000960	O	Mn		0.000319	M	Sb	<	0.009600	O	Y	<	0.001200				
M	Er	<	0.000480	M	Mo	<	0.002900	M	Sc	<	0.001500	M	Yb	<	0.000480				

M - Checked by ICP-MS

O - Checked by ICP-OES

i - Spectral Interference

n - Not Checked For

s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures [Terms and Conditions of Sale](https://www.inorganicventures.com/terms-and-conditions-sale). <https://www.inorganicventures.com/terms-and-conditions-sale>. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 87.62 +2 6 Sr(H₂O)₆+2

Chemical Compatibility - Soluble in HCl, and HNO₃. Avoid H₂SO₄, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1 - 3.5% HNO₃ / LDPE container.

Sr Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO₃); Ores (Carbonate fusion in Pt0 followed by HCl dissolution); Organic Matrices (Dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 88 amu	1200 ppt	N/A	72Ge16O, 176Yb+2, 176Lu+2, 176Hf+2
ICP-OES 407.771 nm	0.0004 / 0.00006 µg/mL	1	U, Ce
ICP-OES 421.552 nm	0.0008 / 0.00004 µg/mL	1	Rb
ICP-OES 460.733 nm	0.07 / 0.003 µg/mL	1	Ce

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 26, 2024

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- August 26, 2029

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor



Certificate Approved By:

Muzzammil Khan
Stock Laboratory Supervisor



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





M6156

Certified Reference Material CRM



R → 6/12/24

CERTIFIED WEIGHT REPORT:

Part Number:

Lot Number:

Description:

57042

032123

Molybdenum (Mo)

Expiration Date:

032126

Ambient (20 °C)

Nominal Concentration (µg/mL):

1000

NIST Test Number:

6UTB

Volume shown below was diluted to (mL):

3000.41

Lot #

MKBQ8597V Ammonium hydroxide

Ammonium hydroxide

0.5%

15.0

(mL)

5E-05 Balance Uncertainty

0.058 Flask Uncertainty

0.058

0.058

Expanded

Uncertainty

+/- (µg/mL)

Final

Conc. (µg/mL)

Initial

Conc. (µg/mL)

Nominal

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Conc. (µg/mL)



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	Tc	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.02	Os	<0.01	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.2	Fe	<0.02	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.2	T	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

Nitric Acid 69%
CMOS



R- 0210212025

m - 6158

Material No.: 9606-03
Batch No.: 24D1062002
Manufactured Date: 2024-03-26
Retest Date: 2029-03-25
Revision No.: 0

Certificate of Analysis

Test	Specification	Result
Assay (HNO ₃)	69.0 - 70.0 %	69.7 %
Appearance	Passes Test	Passes Test
Color (APHA)	≤ 10	5
Residue after Ignition	≤ 2 ppm	1 ppm
Chloride (Cl)	≤ 0.08 ppm	< 0.03 ppm
Phosphate (PO ₄)	≤ 0.10 ppm	< 0.03 ppm
Sulfate (SO ₄)	≤ 0.2 ppm	< 0.2 ppm
Trace Impurities - Aluminum (Al)	≤ 40.0 ppb	< 1.0 ppb
Arsenic and Antimony (as As)	≤ 5.0 ppb	< 2.0 ppb
Trace Impurities - Barium (Ba)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Beryllium (Be)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Bismuth (Bi)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Boron (B)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities - Cadmium (Cd)	≤ 50 ppb	< 1 ppb
Trace Impurities - Calcium (Ca)	≤ 50.0 ppb	2.3 ppb
Trace Impurities - Chromium (Cr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities - Cobalt (Co)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Copper (Cu)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Gallium (Ga)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Germanium (Ge)	≤ 20 ppb	< 10 ppb
Trace Impurities - Gold (Au)	≤ 20 ppb	< 5 ppb
Heavy Metals (as Pb)	≤ 100 ppb	100 ppb
Trace Impurities - Iron (Fe)	≤ 40.0 ppb	< 1.0 ppb
Trace Impurities - Lead (Pb)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities - Lithium (Li)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Magnesium (Mg)	≤ 20 ppb	< 1 ppb
Trace Impurities - Manganese (Mn)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities - Nickel (Ni)	≤ 20.0 ppb	< 5.0 ppb

>>> Continued on page 2 >>>

Nitric Acid 69%
CMOS

avantor™



Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result
Trace Impurities – Niobium (Nb)	≤ 50.0 ppb	< 1.0 ppb
Trace Impurities – Potassium (K)	≤ 50 ppb	16 ppb
Trace Impurities – Silicon (Si)	≤ 50 ppb	< 10 ppb
Trace Impurities – Silver (Ag)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Sodium (Na)	≤ 150.0 ppb	< 5.0 ppb
Trace Impurities – Strontium (Sr)	≤ 30.0 ppb	< 1.0 ppb
Trace Impurities – Tantalum (Ta)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Thallium (Tl)	≤ 10.0 ppb	< 5.0 ppb
Trace Impurities – Tin (Sn)	≤ 20.0 ppb	< 10.0 ppb
Trace Impurities – Titanium (Ti)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Vanadium (V)	≤ 10.0 ppb	< 1.0 ppb
Trace Impurities – Zinc (Zn)	≤ 20.0 ppb	< 1.0 ppb
Trace Impurities – Zirconium (Zr)	≤ 10.0 ppb	< 1.0 ppb
Particle Count – 0.5 µm and greater	≤ 60 par/ml	10 par/ml
Particle Count – 1.0 µm and greater	≤ 10 par/ml	3 par/ml

>>> Continued on page 3 >>>

Nitric Acid 69%
CMOS

 **avantor™**



Material No.: 9606-03
Batch No.: 24D1062002

Test	Specification	Result
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For Microelectronic Use

Country of Origin: USA
Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Croak
Director Quality Operations, Bioscience Production

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Multi Analyte Custom Grade Solution
Catalog Number: 6020ISS
Lot Number: S2-MEB709511
Matrix: 7% (v/v) HNO₃
Value / Analyte(s): 10 µg/mL ea:
Bismuth, Holmium,
Indium, 6-Lithium,
Rhodium, Scandium,
Terbium, Yttrium

3.0 CERTIFIED VALUES AND UNCERTAINTIES

ANALYTE	CERTIFIED VALUE	ANALYTE	CERTIFIED VALUE
6-Lithium, Li6	10.00 ± 0.03 µg/mL	Bismuth, Bi	10.00 ± 0.05 µg/mL
Holmium, Ho	10.00 ± 0.05 µg/mL	Indium, In	10.00 ± 0.04 µg/mL
Rhodium, Rh	10.00 ± 0.07 µg/mL	Scandium, Sc	10.00 ± 0.04 µg/mL
Terbium, Tb	10.00 ± 0.04 µg/mL	Yttrium, Y	10.00 ± 0.04 µg/mL

Density: 1.035 g/mL (measured at 20 ± 4 °C)

Assay Information:

ANALYTE	METHOD	NIST SRM#	SRM LOT#
Bi	ICP Assay	3106	180815
Bi	Calculated		See Sec. 4.2
Ho	ICP Assay	3123a	090408
Ho	EDTA	928	928
In	ICP Assay	3124a	110516
In	EDTA	928	928
In	Calculated		See Sec. 4.2
Li6	Gravimetric		See Sec. 4.2
Rh	ICP Assay	3144	070619
Sc	ICP Assay	3148a	100701
Sc	EDTA	928	928
Tb	ICP Assay	3157a	100518
Tb	EDTA	928	928
Tb	Calculated		See Sec. 4.2
Y	ICP Assay	3167a	120314
Y	EDTA	928	928
Y	Calculated		See Sec. 4.2

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k = 2$.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i})^2 / (\sum(1/(u_{char\ i})^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k(u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2(u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)(u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (\pm) = U_{CRM/RM} = k(u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Lithium Li6	95.6 ± 0.3
Lithium Li7	4.4 ± 0.1

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

N/A

6.0 INTENDED USE

- For the calibration of analytical instruments and validation of analytical methods as appropriate.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

September 03, 2021

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- **September 03, 2026**

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Michael Booth
Director, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





QATS LABORATORY INORGANIC REFERENCE MATERIAL INTERFERENCE CHECK SAMPLE SET FOR ICP-MS (ICSA WITH ICSB)

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
 Available Upon Request

(A) SAMPLE DESCRIPTION

Enclosed is a set of one (1) or more bottles of an Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-0803" and for the ICSAB mixture use "ICSA-0803+ICSB-0803".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

(B) BREAKAGE OR MISSING ITEMS

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to the Contracting Officer, Ross Miller at miller.ross@epa.gov. If directed by Ross Miller, return the chain of custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY
 APTIM Federal Services, LLC
 2700 Chandler Avenue - Building C
 Las Vegas, NV 89120

(C) ANALYSIS OF SAMPLES

This interference check sample set is to be used to verify elemental isobaric correction factors of inductively coupled plasma-mass spectrometers (ICP-MS). This reference material set consists of two (2) concentrated solutions. The ICSA solution contains several interferent elements and species; for a complete listing refer to the CLP SOW. The ICSB solution contains the analytes: Ag, As, Sb, Ba, Be, Cd, Co, Cr, Cu, Mn, Ni, Pb, Tl, Se, V, and Zn. This instruction sheet provides the nominal values for the ICP-MS ICS Part A and Part B target analytes when diluted as directed.

Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-0803, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 1% v/v HNO₃. Analyze this solution by ICP-MS.

ICSB-0803, Analytes, mixed with ICSA-0803, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 1% v/v HNO₃. Analyze this ICSAB solution by ICP-MS.

(D) "CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-MS ICS SOLUTION(S)

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-MS ICSA-0803, AND ICSA-0803 MIXED WITH ICSB-0803							
Element	CRQL	Part A (µg/L)	Lower Limit (µg/L)	Upper Limit (µg/L)	Part A +Part B (µg/L)	Lower Limit (µg/L)	Upper Limit (µg/L)
Al	20.0	[100000]			[100000]		
Sb	2.0	(1.5)	-2.5	5.5	(22.0)	18.0	26.0
As	1.0	(0.1)	-1.9	2.1	19.0	16.2	21.9
Ba	10.0	(1.2)	-18.8	21.2	(22.0)	2.0	42.0
Be	1.0	(0)	-2.0	2.0	19.0	16.2	21.9
Cd	1.0	(0.7)	-1.3	2.7	20.0	17.0	23.0
Ca	500	[100000]			[100000]		
C		[200000]			[200000]		
Cl		[1000000]			[1000000]		
Cr	2.0	(21.0)	17.0	25.0	40.0	34.0	46.0
Co	1.0	(1.0)	-1.0	3.0	20.0	17.0	23.0
Cu	2.0	(8.0)	4.0	12.0	(25.0)	21.0	29.0
Fe	200	[100000]			[100000]		
Pb	1.0	(4.0)	2.0	6.0	25.0	21.3	28.8
Mg	500	[100000]			[100000]		
Mn	1.0	(7.0)	5.0	9.0	27.0	23.0	31.1
Mo		[2000]			[2000]		
Ni	1.0	(6.0)	4.0	8.0	24.0	20.4	27.6
P		[100000]			[100000]		
K	500	[100000]			[100000]		
Se	5.0	(0.3)	-9.7	10.3	(19.0)	9.0	29.0
Ag	1.0	(0)	-2.0	2.0	18.0	15.3	20.7
Na	500	[100000]			[100000]		
S		[100000]			[100000]		
Tl	1.0	(0)	-2.0	2.0	21.0	17.9	24.2
Ti		[2000]			[2000]		
V	5.0	(0.5)	-9.5	10.5	(19.0)	9.0	29.0
Zn	5.0	(11.0)	1.0	21.0	(29.0)	19.0	39.0

[] Indicates analytes that do not require ICP-MS determination in the ICS.

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value $\pm$ 2 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value $\pm$ 15 percent of the listed certified value.



**QATS LABORATORY INORGANIC REFERENCE MATERIAL
 INTERFERENCE CHECK SAMPLE SET FOR ICP-MS (ICSA WITH ICSB)**

NOTE: These instructions are for advisory purposes only. If any apparent conflict exists between these instructions and the analytical protocol or your contract, disregard these instructions.

APPLICATION: For use with the CLP SFAM01.0 SOW and revisions.

CAUTION: Read instructions carefully before opening bottle(s) and proceeding with the analyses.

Contains Heavy Metals
HAZARDOUS MATERIAL

Safety Data Sheets
 Available Upon Request

(A) SAMPLE DESCRIPTION

Enclosed is a set of one (1) or more bottles of an Aqueous Reference Material, each composed of metals at various concentrations and prepared with nitrate salts and oxy-acids of the respective elements in a 5% nitric acid matrix. **For the reference material source in reporting ICSA and ICSAB mixture use "USEPA". For the reference material lot number for the ICSA use "ICSA-0803" and for the ICSAB mixture use "ICSA-0803+ICSB-0803".**

CAUTION: The bottle(s) should be protected from light during storage to ensure the stability of silver which is contained in the ICSB solution. The bottle(s) should be stored at room temperature. **Do not allow the solution(s) to freeze.**

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Using Class "A" glassware, preparation and analysis must be performed according to the following instructions:

ICSA-0803, Interferents: Pipet 10 mL of the ICSA solution into a 100 mL volumetric flask and dilute to volume with 1% v/v HNO₃. Analyze this solution by ICP-MS.

ICSB-0803, Analytes, mixed with ICSA-0803, Interferents: Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 1% v/v HNO₃. Analyze this ICSAB solution by ICP-MS.

(D) "CERTIFIED VALUE" CONCENTRATIONS OF QATS ICP-MS ICS SOLUTION(S)

The "Certified Value" concentrations of the elements, listed in Table 1 below, were derived from statistically pooled analysis results from the following sources, if available: QATS Laboratory, CLP laboratories, Quarterly Blind (QB)/Proficiency Testing (PT) events, CLP pre-award events, and external referee laboratories.

Table 1. "CERTIFIED VALUES" FOR INTERFERENCE CHECK SAMPLE ICP-MS ICSA-0803, AND ICSA-0803 MIXED WITH ICSB-0803							
Element	CRQL	Part A (µg/L)	Lower Limit (µg/L)	Upper Limit (µg/L)	Part A +Part B (µg/L)	Lower Limit (µg/L)	Upper Limit (µg/L)
Al	20.0	[100000]			[100000]		
Sb	2.0	(1.5)	-2.5	5.5	(22.0)	18.0	26.0
As	1.0	(0.1)	-1.9	2.1	19.0	16.2	21.9
Ba	10.0	(1.2)	-18.8	21.2	(22.0)	2.0	42.0
Be	1.0	(0)	-2.0	2.0	19.0	16.2	21.9
Cd	1.0	(0.7)	-1.3	2.7	20.0	17.0	23.0
Ca	500	[100000]			[100000]		
C		[200000]			[200000]		
Cl		[1000000]			[1000000]		
Cr	2.0	(21.0)	17.0	25.0	40.0	34.0	46.0
Co	1.0	(1.0)	-1.0	3.0	20.0	17.0	23.0
Cu	2.0	(8.0)	4.0	12.0	(25.0)	21.0	29.0
Fe	200	[100000]			[100000]		
Pb	1.0	(4.0)	2.0	6.0	25.0	21.3	28.8
Mg	500	[100000]			[100000]		
Mn	1.0	(7.0)	5.0	9.0	27.0	23.0	31.1
Mo		[2000]			[2000]		
Ni	1.0	(6.0)	4.0	8.0	24.0	20.4	27.6
P		[100000]			[100000]		
K	500	[100000]			[100000]		
Se	5.0	(0.3)	-9.7	10.3	(19.0)	9.0	29.0
Ag	1.0	(0)	-2.0	2.0	18.0	15.3	20.7
Na	500	[100000]			[100000]		
S		[100000]			[100000]		
Tl	1.0	(0)	-2.0	2.0	21.0	17.9	24.2
Ti		[2000]			[2000]		
V	5.0	(0.5)	-9.5	10.5	(19.0)	9.0	29.0
Zn	5.0	(11.0)	1.0	21.0	(29.0)	19.0	39.0

[] Indicates analytes that do not require ICP-MS determination in the ICS.

The acceptance ranges for all analytes in parentheses in the above table were determined using the listed certified value $\pm$ 2 times the associated CLP SOW CRQL. The acceptance ranges for all other analytes were determined using the certified value $\pm$ 15 percent of the listed certified value.



Certified Reference Material CRM

M6030



ANAB ISO 17034 Accredited
AR-1539 Certificate Number
<https://absolutestandards.com>

CERTIFIED WEIGHT REPORT:

Part Number: **57047**
Lot Number: **122823**
Description: **Silver (Ag)**

Lot #
Solvent: 24002546 Nitric Acid

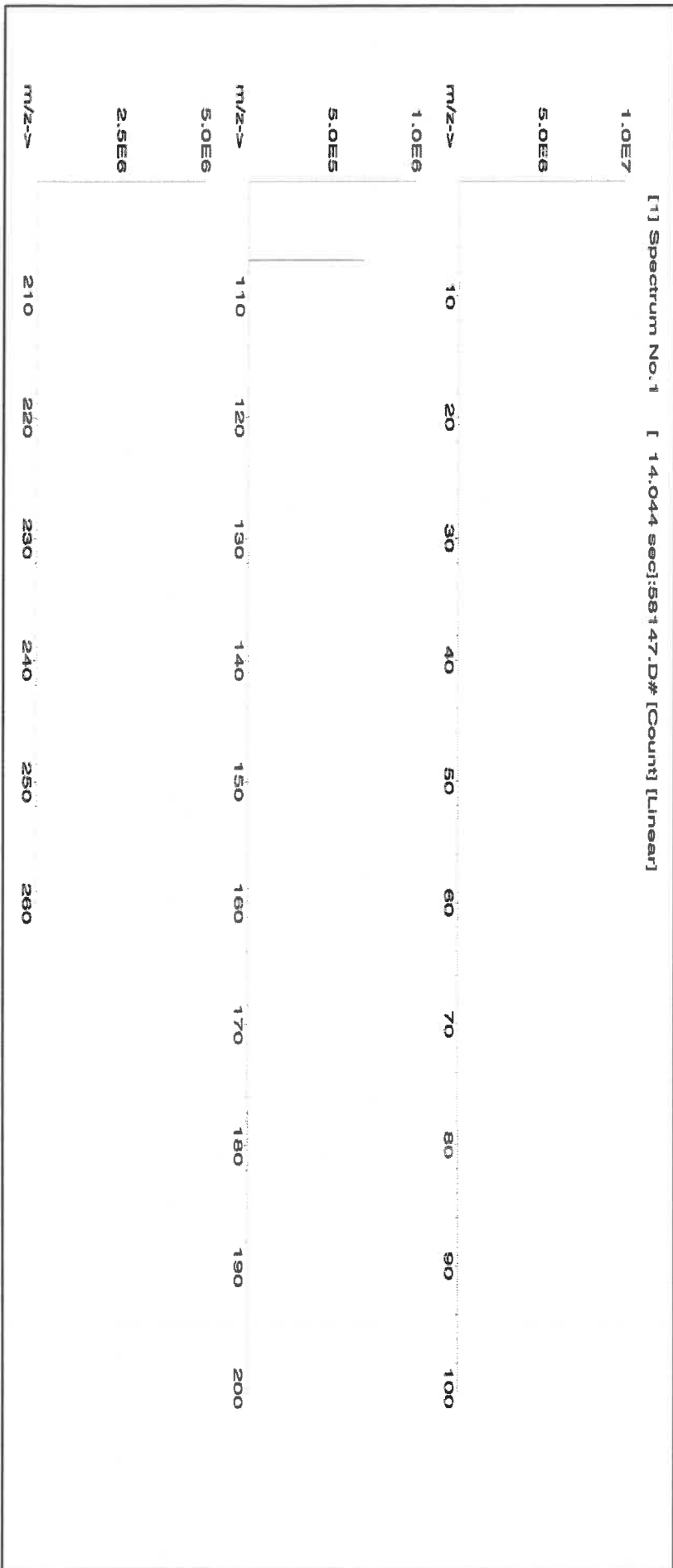
Formulated By:	Benson Chan
Reviewed By:	Pedro L. Rentas
	122823

Expiration Date: 122826
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB
Weight shown below was diluted to (mL): 4000.30
5E-05 Balance Uncertainty
0.058 Flask Uncertainty

SDS Information									
Compound	RM#	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty Purity (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)
1. Silver nitrate (Ag)	IN035	J0612AGA1	1000.0	99.999	0.10	63.7	6.27992	6.27998	1000.0

Expanded Uncertainty +/- (µg/mL) 2.0 7761-88-8 10 µg/mL3 NA 3151

[1] Spectrum No. 1 [14.044 sec]:58147.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	T	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Sn	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

(T)= Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 meghom deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



Certified Reference Material CRM
R: 10/18/24



ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT:

Part Number:

57051

Lot #

24002546

Solvent:

Nitric Acid

Lot Number:

071724

Antimony (Sb)

Description:

Antimony (Sb)

Expiration Date:

071727

Recommended Storage:

Ambient (20 °C)

Nominal Concentration (µg/mL):

1000

NIST Test Number:

6U7B

Volume shown below was diluted to (mL):

2000.26

5E-05 Balance Uncertainty

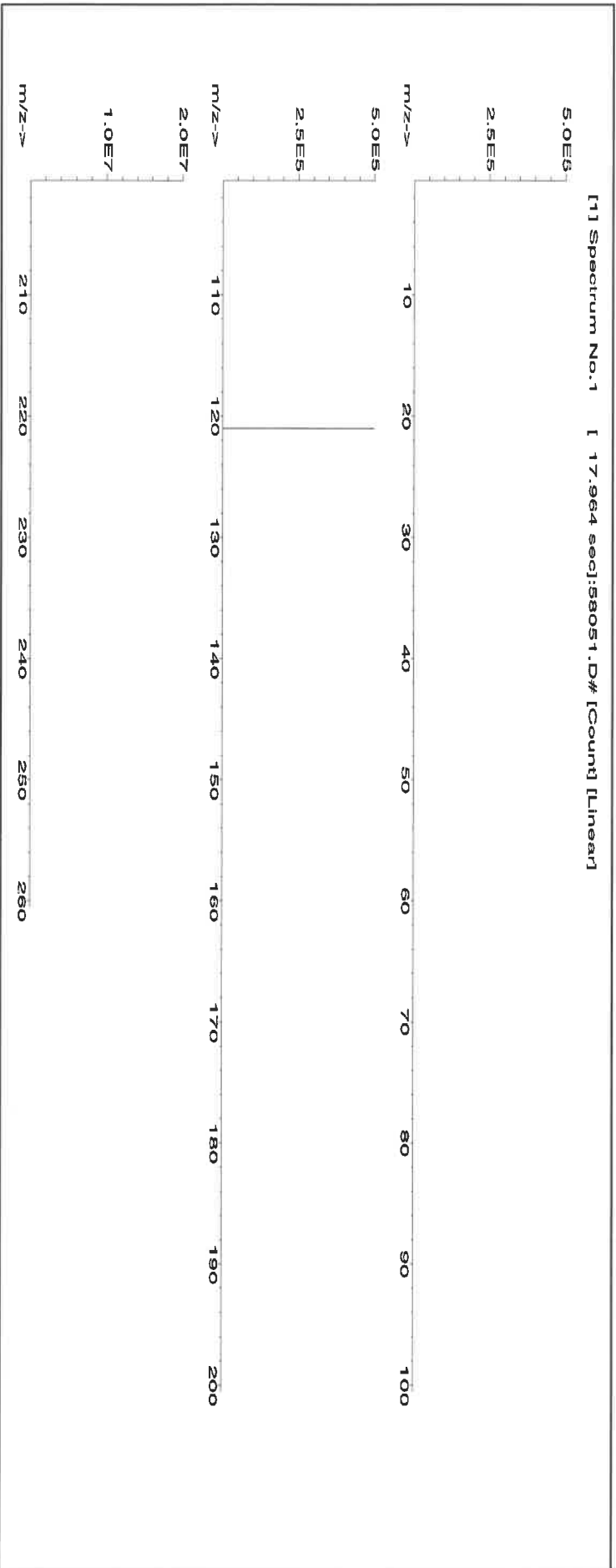
0.058 Flask Uncertainty

Formulated By:	Giovanni Esposito	071724
Reviewed By:	Pedro L. Rentas	071724

SDS Information

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
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1. Antimony (Sb)	58151	060324	0.1000	200.0	0.084	1000	10001.4	1000.0	2.2	7440-36-0	0.5 mg/m3	or-rat 7000 mg/kg	3102a
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Trace Metals Verification by ICP-MS ($\mu\text{g/mL}$)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	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	In	<0.02	Ir	<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	Fe	<0.2	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	La	<0.02	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	Pb	<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			Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Ti	<0.02	Zr	<0.02

Certified by:

Har P. ...

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R: 8/5/24

M6019

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1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).

**2.0 PRODUCT DESCRIPTION**

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGSR1
Lot Number: U2-SR730227
Matrix: 0.1% (v/v) HNO₃
Value / Analyte(s): 1 000 µg/mL ea:
Strontium
Starting Material: SrCO₃
Starting Material Lot#: M2-2192
Starting Material Purity: 99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1001 ± 3 µg/mL
Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	998 ± 4 µg/mL ICP Assay NIST SRM Traceable to 3153a Lot Number: K2-SR650985
Assay Method #2	1001 ± 3 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	1001 ± 2 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i})^2 / (\sum(1/u_{char\ i})^2)$$

$$CRM/RM \text{ Expanded Uncertainty } (k) = U_{CRM/RM} = k(u_{char}^2 + u_{bb}^2 + u_{ts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2(u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{ts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)(u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (k) = U_{CRM/RM} = k(u_{char\ a}^2 + u_{bb}^2 + u_{ts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{ts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.001980	M	Eu	<	0.000495	O	Na	0.000200	M	Se	<	0.013862	O	Zn	0.000143	
O	Al	0.000370	O	Fe	0.000410	M	Nb	<	0.000495	i	Si	<			M	Zr	<	0.000495
M	As	<	0.000495	M	Ga	<	0.000495	M	Nd	<	0.000495	M	Sm	<	0.000495			
M	Au	<	0.000989	M	Gd	<	0.000495	O	Ni	<	0.007631	M	Sn	<	0.000990			
M	B	<	0.039606	M	Ge	<	0.000495	M	Os	<	0.000494	s	Sr	<				
M	Ba	0.006486	M	Hf	<	0.000495	i	P	<			M	Ta	<	0.000495			
M	Be	<	0.000990	M	Hg	<	0.000989	M	Pb	<	0.002970	M	Tb	<	0.000495			
M	Bi	<	0.000495	M	Ho	<	0.000495	M	Pd	<	0.003957	M	Te	<	0.027724			
O	Ca	0.004255	M	In	<	0.000495	M	Pr	<	0.000495	M	Th	<	0.000990				
M	Cd	0.001339	M	Ir	<	0.000494	M	Pt	<	0.002970	M	Ti	<	0.005940				
M	Ce	<	0.004950	O	K	<	0.008184	M	Rb	<	0.002970	M	Tl	<	0.000495			
M	Co	<	0.000495	M	La	<	0.000495	M	Re	<	0.000495	M	Tm	<	0.000495			
O	Cr	<	0.003207	O	Li	<	0.000884	O	Rh	<	0.012829	M	U	<	0.001485			
M	Cs	<	0.000990	M	Lu	<	0.002970	M	Ru	<	0.000989	M	V	<	0.001980			
M	Cu	0.000099	O	Mg	0.000064	i	S	<				M	W	<	0.003960			
M	Dy	<	0.000495	O	Mn	0.000066	M	Sb	<	0.014852	O	Y	<	0.000995				
M	Er	<	0.000495	M	Mo	<	0.001980	M	Sc	<	0.001980	M	Yb	<	0.000495			

M - Checked by ICP-MS

O - Checked by ICP-OES

i - Spectral Interference

n - Not Checked For

s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, <https://www.inorganicventures.com/terms-and-conditions-sale>. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 87.62 +2 6 Sr(H₂O)₆+2

Chemical Compatibility - Soluble in HCl, and HNO₃. Avoid H₂SO₄, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1 - 3.5% HNO₃ / LDPE container.

Sr Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO₃); Ores (Carbonate fusion in PtO followed by HCl dissolution); Organic Matrices (Dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 88 amu	1200 ppt	N/A	72Ge16O, 176Yb+2, 176Lu+2 , 176Hf+2
ICP-OES 407.771 nm	0.0004 / 0.00006 µg/mL	1	U, Ce
ICP-OES 421.552 nm	0.0008 / 0.00004 µg/mL	1	Rb
ICP-OES 460.733 nm	0.07 / 0.003 µg/mL	1	Ce

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 03, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- March 03, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director



R: 8/5/24

M6019

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1.0 ACCREDITATION / REGISTRATION

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2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGSR1
Lot Number: U2-SR730227
Matrix: 0.1% (v/v) HNO₃
Value / Analyte(s): 1 000 µg/mL ea:
Strontium
Starting Material: SrCO₃
Starting Material Lot#: M2-2192
Starting Material Purity: 99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1001 ± 3 µg/mL
Density: 1.000 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	998 ± 4 µg/mL ICP Assay NIST SRM Traceable to 3153a Lot Number: K2-SR650985
Assay Method #2	1001 ± 3 µg/mL EDTA NIST SRM 928 Lot Number: 928
Assay Method #3	1001 ± 2 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum(w_i)(X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char\ i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char\ i})^2 / (\sum(1/u_{char\ i})^2)$$

$$CRM/RM \text{ Expanded Uncertainty } (k) = U_{CRM/RM} = k(u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum(w_i)^2(u_{char\ i})^2]^{1/2}$ where $u_{char\ i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a)(u_{char\ a})$$

X_a = mean of Assay Method A with

$u_{char\ a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (k) = U_{CRM/RM} = k(u_{char\ a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char\ a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M	Ag	<	0.001980	M	Eu	<	0.000495	O	Na	0.000200	M	Se	<	0.013862	O	Zn	0.000143	
O	Al	0.000370	O	Fe	0.000410	M	Nb	<	0.000495	i	Si	<			M	Zr	<	0.000495
M	As	<	0.000495	M	Ga	<	0.000495	M	Nd	<	0.000495	M	Sm	<	0.000495			
M	Au	<	0.000989	M	Gd	<	0.000495	O	Ni	<	0.007631	M	Sn	<	0.000990			
M	B	<	0.039606	M	Ge	<	0.000495	M	Os	<	0.000494	s	Sr	<				
M	Ba	0.006486	M	Hf	<	0.000495	i	P	<			M	Ta	<	0.000495			
M	Be	<	0.000990	M	Hg	<	0.000989	M	Pb	<	0.002970	M	Tb	<	0.000495			
M	Bi	<	0.000495	M	Ho	<	0.000495	M	Pd	<	0.003957	M	Te	<	0.027724			
O	Ca	0.004255	M	In	<	0.000495	M	Pr	<	0.000495	M	Th	<	0.000990				
M	Cd	0.001339	M	Ir	<	0.000494	M	Pt	<	0.002970	M	Ti	<	0.005940				
M	Ce	<	0.004950	O	K	<	0.008184	M	Rb	<	0.002970	M	Tl	<	0.000495			
M	Co	<	0.000495	M	La	<	0.000495	M	Re	<	0.000495	M	Tm	<	0.000495			
O	Cr	<	0.003207	O	Li	<	0.000884	O	Rh	<	0.012829	M	U	<	0.001485			
M	Cs	<	0.000990	M	Lu	<	0.002970	M	Ru	<	0.000989	M	V	<	0.001980			
M	Cu	0.000099	O	Mg	0.000064	i	S	<				M	W	<	0.003960			
M	Dy	<	0.000495	O	Mn	0.000066	M	Sb	<	0.014852	O	Y	<	0.000995				
M	Er	<	0.000495	M	Mo	<	0.001980	M	Sc	<	0.001980	M	Yb	<	0.000495			

M - Checked by ICP-MS

O - Checked by ICP-OES

i - Spectral Interference

n - Not Checked For

s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures Terms and Conditions of Sale, <https://www.inorganicventures.com/terms-and-conditions-sale>. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT

Atomic Weight; Valence; Coordination Number; Chemical Form in Solution - 87.62 +2 6 Sr(H₂O)₆+2

Chemical Compatibility - Soluble in HCl, and HNO₃. Avoid H₂SO₄, HF and neutral to basic media. Stable with most metals and inorganic anions forming insoluble silicate, carbonate, hydroxide, oxide, fluoride, sulfate, oxalate, chromate, arsenate and tungstate in neutral aqueous media.

Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 1 - 3.5% HNO₃ / LDPE container.

Sr Containing Samples (Preparation and Solution) -Metal (Best dissolved in diluted HNO₃); Ores (Carbonate fusion in PtO followed by HCl dissolution); Organic Matrices (Dry ash and dissolution in dilute HCl).

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 88 amu	1200 ppt	N/A	72Ge16O, 176Yb+2, 176Lu+2, 176Hf+2
ICP-OES 407.771 nm	0.0004 / 0.00006 µg/mL	1	U, Ce
ICP-OES 421.552 nm	0.0008 / 0.00004 µg/mL	1	Rb
ICP-OES 460.733 nm	0.07 / 0.003 µg/mL	1	Ce

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

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11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

March 03, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- March 03, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

Certificate Approved By:

Thomas Kozikowski
Manager, Quality Control



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





Certified Reference Material CRM

M6023



ANAB ISO 17034 Accredited
AR-1539 Certificate Number
https://AbsoluteStandards.com

CERTIFIED WEIGHT REPORT:

Part Number: 57081
Lot Number: 062724
Description: Thallium (TI)

Lot #

Solvent: 24002546 Nitric Acid

Aleah O'Brady
Formulated By: Aleah O'Brady 062724

Expiration Date:

062727

2%

40.0

Nitric Acid

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

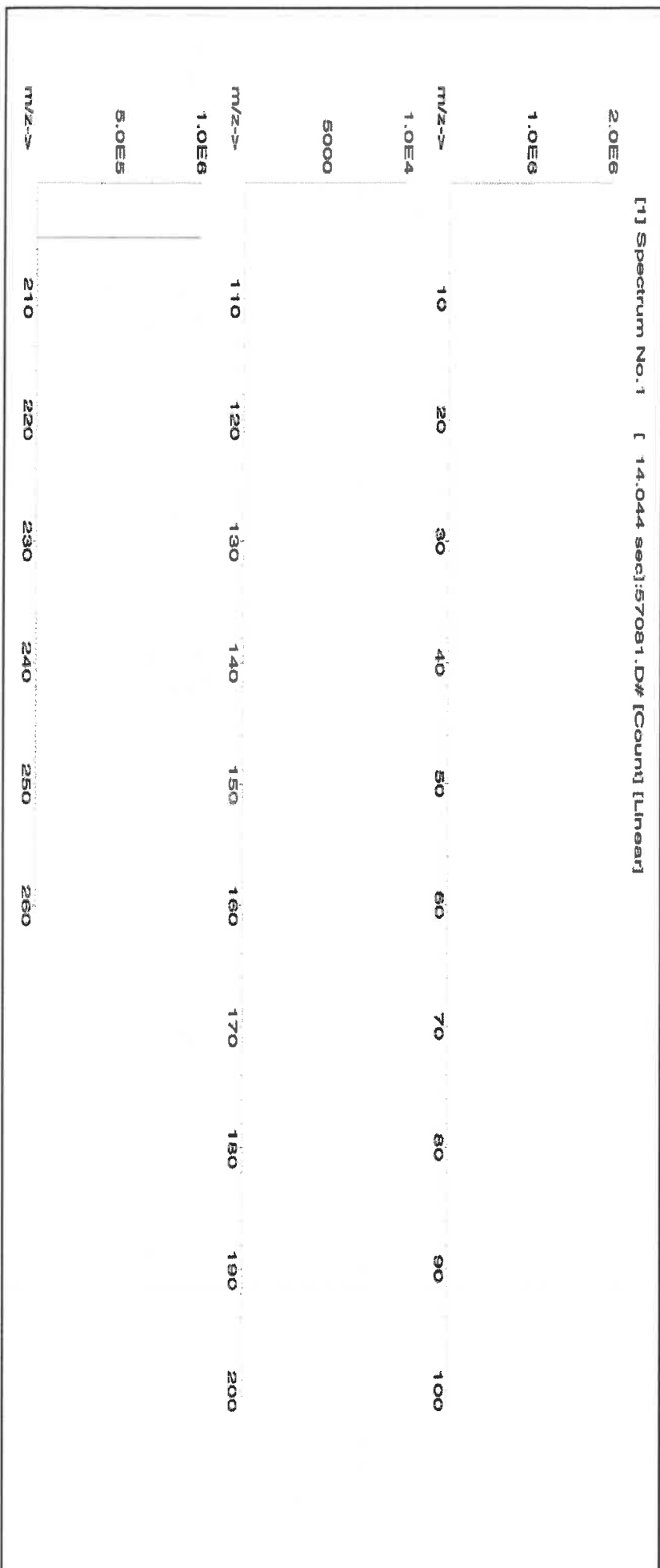
Pedro L. Renteria
Reviewed By: Pedro L. Renterias 062724

SDS Information

Compound	Lot Number	Nominal Conc. (µg/mL)	Purity (%)	Uncertainty (%)	Assay (%)	Target Weight (g)	Actual Weight (g)	Actual Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
----------	------------	-----------------------	------------	-----------------	-----------	-------------------	-------------------	----------------------	----------------------------------	------	----------------	------	----------

1. Thallium nitrate (TI) IN037 BCCF4399 1000 99.999 0.10 77.0 2.5975 2.5977 1000.1 2.0 10102-45-1 0.1 mg/m3 or-mus 15mg/kg 3158

[1] Spectrum No.1 [14.044 sec]:57081.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Sc	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	T	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Rb	<0.02	Na	<0.2	Tm	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Sn	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Ti	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Se	<0.02	Ta	<0.02			Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



CERTIFIED WEIGHT REPORT:

Part Number: 57022
Lot Number: 050223
Description: Titanium (Ti)

Lot # 21110221
Solvent: Nitric Acid

Expiration Date: 050226

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 1000

NIST Test Number: 6UTB

Volume shown below was diluted to (mL): 2000.02

5E-05 Balance Uncertainty
0.058 Flask Uncertainty

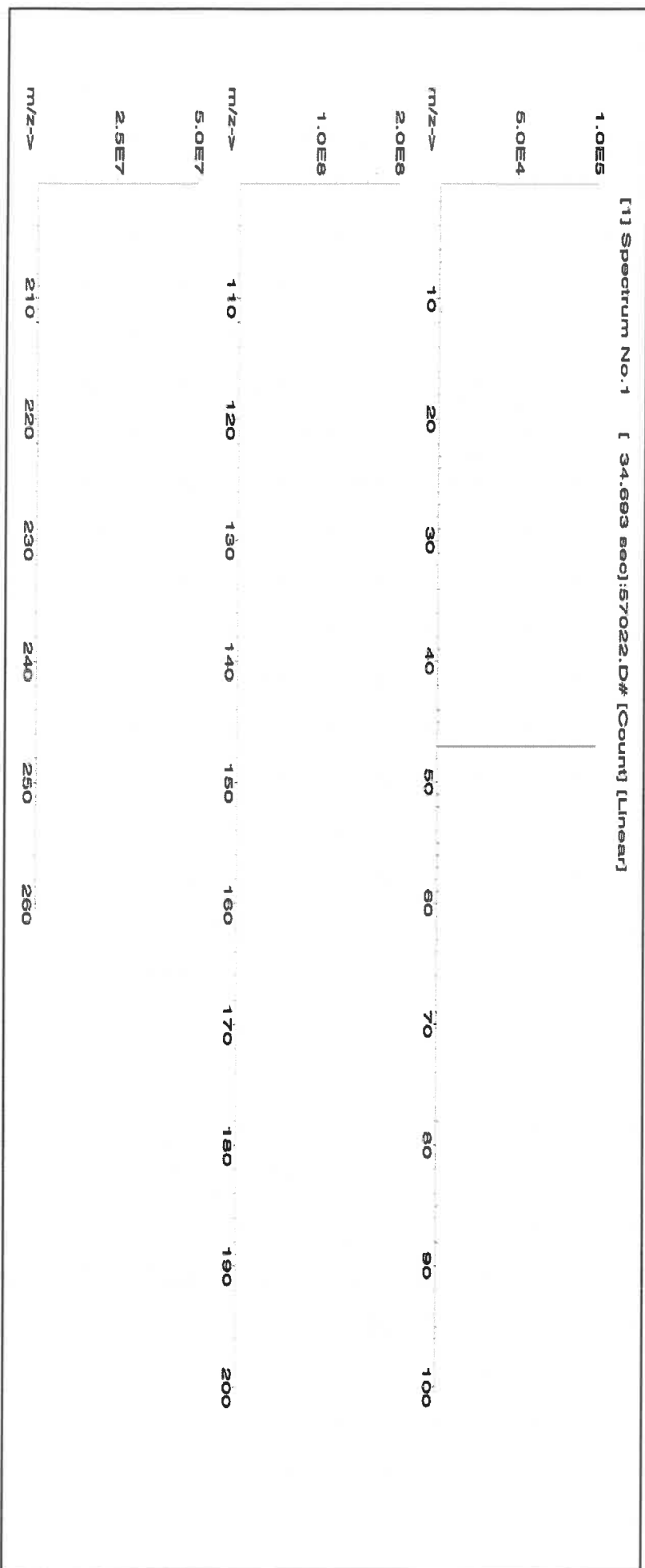
Formulated By:	Lawrence Barry	050223
Reviewed By:	Pedro L. Rentes	050223

SDS Information

Compound	Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
----------	-------------	------------	-----------------	-------------------	--------------------------	-----------------------	-----------------------	---------------------	----------------------------------	------	----------------	------	----------

1. Ammonium hexafluoroantimonate (Ti)	58122	071122	0.1000	200.0	0.084	1000	10000.1	1000.0	2.2	16962-40-6	2.5 (F) mg/m3	NA	3162a
---------------------------------------	-------	--------	--------	-------	-------	------	---------	--------	-----	------------	---------------	----	-------

[1] Spectrum No.1 [34.683 sec]:57022.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pr	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	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	Tm	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Ru	<0.02	Sr	<0.02	Sn	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	S	<0.02	Ti	<0.02	Zn	<0.02
B	<0.02	Cu	<0.02	Au	<0.02	Pb	<0.02	Nd	<0.02	K	<0.2	Sc	<0.02	Ta	<0.02	Tl	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).

B: 8/3/24 M6020

300 Technology Drive
Christiansburg, VA 24073 USA
inorganicventures.com

P: 800-669-6799/540-585-3030
F: 540-585-3012
info@inorganicventures.com

1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution
Catalog Number: CGU1
Lot Number: U2-U735194
Matrix: 2% (v/v) HNO₃
Value / Analyte(s): 1 000 µg/mL ea:
Uranium
Starting Material: Uranyl Nitrate Hexahydrate
Starting Material Lot#: 2504
Starting Material Purity: 99.9993%

3.0 CERTIFIED VALUES AND UNCERTAINTIES

Certified Value: 1000 ± 5 µg/mL
Density: 1.010 g/mL (measured at 20 ± 4 °C)

Assay Information:

Assay Method #1	1001 ± 4 µg/mL ICP Assay NIST SRM traceable to 3164 Lot Number: R2-U689597
Assay Method #2	1000 ± 5 µg/mL Calculated NIST SRM Lot Number: See Sec. 4.2

- The Calculated Value is a value calculated from the weight of a starting material that has been certified directly vs. a National Institute of Standards and Technology (NIST) SRM/RM. See Sec 4.2 for balance traceability.

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of k = 2.

Characterization of CRM/RM by Two or More Methods

Certified Value, $X_{CRM/RM}$, where two or more methods of characterization are used is the weighted mean of the results:

$$X_{CRM/RM} = \sum (w_i) (X_i)$$

X_i = mean of Assay Method i with standard uncertainty $u_{char i}$

w_i = the weighting factors for each method calculated using the inverse square of the variance:

$$w_i = (1/u_{char i}^2) / (\sum (1/u_{char i}^2))$$

$$CRM/RM \text{ Expanded Uncertainty } (k) = U_{CRM/RM} = k (u_{char}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char} = [\sum (w_i)^2 (u_{char i}^2)]^{1/2}$ where $u_{char i}$ are the errors from each characterization method

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

Certified Abundance:

IV's Certified Abundance

Isotope	Atom %
Uranium 238U	99.8 ± 0.1
Uranium 235U	0.19 ± 0.05

Characterization of CRM/RM by One Method

Certified Value, $X_{CRM/RM}$, where one method of characterization is used is the mean of individual results:

$$X_{CRM/RM} = (X_a) (u_{char a})$$

X_a = mean of Assay Method A with

$u_{char a}$ = the standard uncertainty of characterization Method A

$$CRM/RM \text{ Expanded Uncertainty } (k) = U_{CRM/RM} = k (u_{char a}^2 + u_{bb}^2 + u_{lts}^2 + u_{ts}^2)^{1/2}$$

k = coverage factor = 2

$u_{char a}$ = the errors from characterization

u_{bb} = bottle to bottle homogeneity standard uncertainty

u_{lts} = long term stability standard uncertainty (storage)

u_{ts} = transport stability standard uncertainty

4.0 TRACEABILITY TO NIST

- This product is traceable to NIST via an unbroken chain of comparisons. The uncertainties for each certified value are reported, taking into account the SRM/RM uncertainty error and the measurement, weighing and volume dilution errors. In rare cases where no NIST SRM/RM are available, the term 'in-house std.' is specified.

4.1 Thermometer Calibration

- All thermometers are NIST traceable through thermometers that are calibrated by an accredited calibration laboratory.

4.2 Balance Calibration

- All analytical balances are calibrated by an accredited calibration laboratory and procedure. The weights used for testing are annually compared to master weights and are traceable to NIST.

4.3 Glassware Calibration

- An in-house procedure is used to calibrate all Class A glassware used in the manufacturing and quality control of CRM/RMs.

5.0 TRACE METALLIC IMPURITIES (TMI) DETERMINED BY ICP-MS AND ICP-OES (µg/mL)

CRM/RMs are tested for trace metallic impurities by Axial ICP-OES and ICP-MS. The result from the most sensitive method for each element, is reported below. Solutions tested by ICP-MS were analyzed in an ULPA-Filtered Clean Room. An ULPA-Filter is 99.9985% efficient for the removal of particles down to 0.3 µm.

M Ag <	0.001400	M Eu <	0.000270	M Na	0.001811	M Se <	0.004800	M Zn	0.002126
M Al	0.000322	M Fe	0.007481	M Nb <	0.000790	i Si <		M Zr <	0.000270
M As <	0.007300	M Ga <	0.000270	M Nd <	0.000270	M Sm <	0.000270		
M Au <	0.001400	M Gd <	0.000270	M Ni	0.000905	M Sn <	0.120000		
M B <	0.017000	M Ge <	0.000800	M Os <	0.000270	M Sr <	0.000270		
M Ba <	0.003100	M Hf <	0.000270	i P <		M Ta <	0.000270		
M Be <	0.003200	M Hg <	0.000270	M Pb	0.000511	M Tb <	0.000270		
M Bi <	0.003000	M Ho <	0.000270	M Pd <	0.000270	M Te <	0.001100		
M Ca <	0.048000	M In <	0.001400	M Pr <	0.000270	M Th	0.000200		
M Cd <	0.000270	M Ir <	0.000270	M Pt <	0.000270	M Ti <	0.000530		
M Ce <	0.000270	O K <	0.047000	M Rb <	0.000660	M Tl <	0.000270		
M Co <	0.000270	M La	0.000322	M Re <	0.000270	M Tm <	0.000270		
M Cr	0.001732	M Li <	0.001100	M Rh <	0.000270	s U <			
M Cs <	0.003500	M Lu <	0.000270	M Ru <	0.000270	M V <	0.003500		
M Cu <	0.005600	M Mg	0.000240	i S <		M W <	0.000270		
M Dy <	0.000270	M Mn <	0.006500	M Sb <	0.000270	M Y <	0.000270		
M Er <	0.000270	M Mo	0.000433	M Sc <	0.000800	M Yb <	0.000270		

M - Checked by ICP-MS O - Checked by ICP-OES i - Spectral Interference

n - Not Checked For s - Solution Standard Element

6.0 INTENDED USE

6.1 This standard is intended for the calibration of analytical instruments and validation of analytical methods as appropriate. This CRM may be used in connection with EPA Methods 6010, 6020 (all versions), Standard Methods 3120 B and USP <232> / ICH Q3D.

6.2 For products attaining traceability through Inorganic Ventures' Primary Certified Reference Materials (PCRM™) see the Limited License to Use PCRM™ in the Inorganic Ventures [Terms and Conditions of Sale](https://www.inorganicventures.com/terms-and-conditions-sale). <https://www.inorganicventures.com/terms-and-conditions-sale>. The Terms and Conditions contain information on the use of materials traceable to PCRM™ certified reference materials. This Limited License agreement is especially pertinent for laboratories accredited under ISO:17034.

7.0 INSTRUCTIONS FOR THE CORRECT USE OF THIS REFERENCE MATERIAL

7.1 Storage and Handling Recommendations

- Store between approximately 4° - 30° C while in sealed TCT bag.
- While stored in the sealed TCT bag, transpiration of this CRM/RM is negligible. After opening the sealed TCT bag transpiration of the CRM/RM will occur, resulting in a gradual increase in the analyte concentration(s). It is the responsibility of the user to account for this effect. When the bottle is weighed both before and after being placed in storage, the mass difference observed will be a measure of transpiration mass loss.
- After opening the sealed TCT bag, keep cap tightly sealed when not in use and store between 4° - 24° C to minimize the effects of transpiration. Use at 20° ± 4° C to minimize volumetric dilution error when using the reported density. Do not pipette from the container. Do not return removed aliquots to container.

- For more information, visit www.inorganicventures.com/TCT
Atomic Weight; Valence; Coordination Number; Chemical Form In Solution - 238.03 +6 8 UO₂2+(uranyl)
Chemical Compatibility - Soluble in HCl and HNO₃. Avoid H₃PO₄. H₂SO₄ and HF matrices should not be a problem depending upon [U]. Although the UO₂2+ ion is distinctly basic, any U+4 will precipitate in basic media. UO₂2+salts are generally soluble in water and UO₂2+ is stable with most metals and inorganic anions. The uranyl phosphate is insoluble in water. UF₄ and UF₆ are water soluble.
Stability - 2-100 ppb levels stable for months in 1% HNO₃ / LDPE container. 1-10,000 ppm solutions chemically stable for years in 2-5% HNO₃ / LDPE container.
U Containing Samples (Preparation and Solution) -Metal (Dissolves rapidly in HCl and HNO₃); Oxide (Soluble in HNO₃); Ores (Digest for 1-2 hours with 1 gram of ore to 30 mL 1:1 HNO₃. Silica insolubles are removed by filtration after bringing the sample to fumes with conc. H₂SO₄.)

Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):

Technique/Line	Estimated D.L.	Order	Interferences (underlined indicates severe)
ICP-MS 238 amu	2 ppt	N/A	206Pb16O2
ICP-OES 263.553 nm	0.3 / 0.01 µg/mL	1	Ce, Ir, Th, Rh, W, Zr, Ta, Ti, V, Hf, Fe, Re, Ru
ICP-OES 367.007 nm	0.3 / 0.02 µg/mL	1	Th, Ce
ICP-OES 385.958 nm	0.3 / 0.01 µg/mL	1	Th, Fe

8.0 HAZARDOUS INFORMATION

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

9.0 HOMOGENEITY

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

10.0 QUALITY STANDARD DOCUMENTATION

10.1 ISO 9001 Quality Management System Registration

- QSR Certificate Number QSR-1034

10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; inorganicventures.com; info@inorganicventures.com

11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

11.1 Certification Issue Date

August 03, 2023

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

11.2 Lot Expiration Date

- August 03, 2028

- The date after which this CRM/RM should not be used.

- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

11.3 Period of Validity

- Sealed TCT Bag Open Date: _____

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

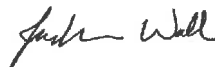
Certificate Prepared By:

Uyen Truong
Custom Processing Supervisor



Certificate Approved By:

Jodie Wall
Stock VSM Coordinator



Certifying Officer:

Paul Gaines
Chairman / Senior Technical Director





Certified Reference Material CRM

M6021



CERTIFIED WEIGHT REPORT:

Part Number: 57023
Lot Number: 062424
Description: Vanadium (V)

Lot # 24002546
Solvent: Nitric Acid

Aleah O'Brady	
Formulated By:	Aleah O'Brady
Reviewed By:	Pedro L. Rantas
	062424

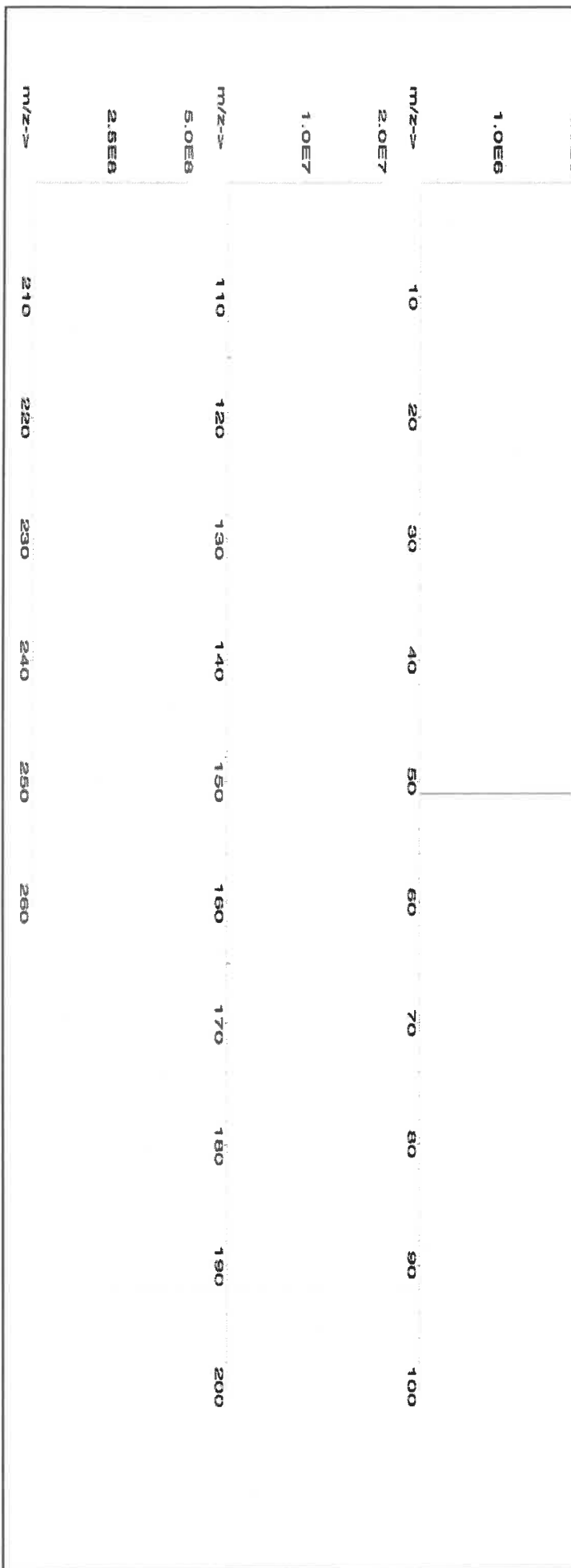
Expiration Date: 062427
Recommended Storage: Ambient (20 °C)
Nominal Concentration (µg/mL): 1000
NIST Test Number: 6UTB

Volume shown below was diluted to (mL): 2000.3
5E-05 Balance Uncertainty
0.06 Flask Uncertainty

2.0% 40.0 (mL) Nitric Acid

Compound		Part Number	Lot Number	Dilution Factor	Initial Vol. (mL)	Uncertainty Pipette (mL)	Nominal Conc. (µg/mL)	Initial Conc. (µg/mL)	Final Conc. (µg/mL)	Expanded Uncertainty +/- (µg/mL)	CAS#	OSHA PEL (TWA)	LD50	NIST SRM
1. Ammonium metavanadate (V)		58123	021224	0.1000	200.0	0.084	1000	10000.3	1000.0	2.2	7803-55-6	0.05 mg/m3	or-at 58.1mg/kg	3165

[1] Spectrum No.1 [34.243 sec]:58023.D# [Count] [Linear]





Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

Trace Metals Verification by ICP-MS (µg/mL)

Al	<0.02	Cd	<0.02	Dy	<0.02	Hf	<0.02	Li	<0.02	Ni	<0.02	Pt	<0.02	Se	<0.2	Tb	<0.02	W	<0.02
Sb	<0.02	Ca	<0.2	Er	<0.02	Ho	<0.02	Lu	<0.02	Nb	<0.02	Re	<0.02	Si	<0.02	Te	<0.02	U	<0.02
As	<0.2	Ce	<0.02	Eu	<0.02	In	<0.02	Mg	<0.01	Os	<0.02	Rh	<0.02	Ag	<0.02	Tl	<0.02	V	<0.02
Ba	<0.02	Cs	<0.02	Gd	<0.02	Ir	<0.02	Mn	<0.02	Pd	<0.02	Ru	<0.02	Na	<0.2	Th	<0.02	Yb	<0.02
Be	<0.01	Cr	<0.02	Ga	<0.02	Fe	<0.2	Hg	<0.2	P	<0.02	Sr	<0.02	S	<0.02	Tm	<0.02	Y	<0.02
Bi	<0.02	Co	<0.02	Ge	<0.02	La	<0.02	Mo	<0.02	Pt	<0.02	Sm	<0.02	Ta	<0.02	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	Ti	<0.02	Ti	<0.02	Zr	<0.02

(T) = Target analyte

Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- * The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- * Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- * All standard containers are meticulously cleaned prior to use.
- * Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- * Standards are certified (+/-) 0.5% of the stated value, unless otherwise stated.
- * All Standards should be stored with caps tight and under appropriate laboratory conditions.
- * Uncertainty Reference: Taylor, B.N. and Kuyat, C.E., "Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Result," NIST Technical Note 1297, U.S. Government Printing Office, Washington, D.C. (1994).



SHIPPING DOCUMENTS

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- 15
- 16
- 17

CLIENT INFORMATION

REPORT TO BE SENT TO:

COMPANY: Jacobs
ADDRESS: 412 Mt Kumbie Ave Suite 100
CITY Morrisstown STATE: NJ ZIP: 07910
ATTENTION: John Yufante John.Yufante@Jacobs.com
PHONE: FAX:

CLIENT PROJECT INFORMATION

PROJECT NAME: STC PTC
PROJECT NO.: D3808221 LOCATION: Princeton Junction
PROJECT MANAGER: Mary Murphy
e-mail: Mary.Murphy@Jacobs.com
PHONE: FAX:

CLIENT BILLING INFORMATION

BILL TO: Mary Murphy PO#:
ADDRESS:
CITY STATE: ZIP:
ATTENTION: PHONE:

ANALYSIS

DATA TURNAROUND INFORMATION

FAX (RUSH) Standard TAT DAYS*
HARDCOPY (DATA PACKAGE): DAYS*
EDD: DAYS*
*TO BE APPROVED BY CHEMTECH
STANDARD HARDCOPY TURNAROUND TIME IS 10 BUSINESS

DATA DELIVERABLE INFORMATION

☐ Level 1 (Results Only) ☐ Level 4 (QC + Full Raw Data)
☐ Level 2 (Results + QC) ☐ NJ Reduced ☐ US EPA CLP
☒ Level 3 (Results + QC) ☐ NYS ASP A ☐ NYS ASP B
+ Raw Data ☐ Other
☐ EDD FORMAT

1. 1/4 Dioxane (62705-504)
2. Site Specific VOCs (62705-504)
3. Total Metals (60208)
4. Dissolved Iron (60208)
5. Alkalinity (50123708)
6. TDS (50123708)
7. Ammonia (4056)
8.
9.

ALLIANCE SAMPLE ID	PROJECT SAMPLE IDENTIFICATION	SAMPLE MATRIX	SAMPLE TYPE		SAMPLE COLLECTION		# OF BOTTLES	PRESERVATIVES									COMMENTS	
			COMP	GRAB	DATE	TIME		E	A/E	B/E	E	E	E	E			← Specify Preservatives A-HCl D-NaOH B-HNO3 E-ICE C-H2SO4 F-OTHER	
								1	2	3	4	5	6	7	8	9		
1.	RMW-018-82-040325	GW		X	4-3-25	1135	4	✓	✓									
2.	RMW-048-91-040325	GW		X	4-3-25	1415	4	✓	✓									
3.	RMW-018-82-040325-FD	GW		X	4-3-25	1140	4	✓	✓									
4.	RMW-038-90-040325	GW		X	4-3-25	1510	4	✓	✓									
5.	EB01-040325	DI		X	4-3-25	1545	8	✓	✓	✓	✓	✓	✓				PH: 1.9	
6.	TB01-040325	DI		X	4-3-25	1600	2	✓									Lot # 80A0441	
7.																	Samples preserved (HNO3)	
8.																	on 4/4/25 @ 0715	
9.																	Samples placed in 50-ml bottles	
10.																	Samples refrigerated	

SAMPLE CUSTODY MUST BE DOCUMENTED BELOW EACH TIME SAMPLES CHANGE POSSESSION INCLUDING COURIER DELIVERY

RELINQUISHED BY SAMPLER: 1. <u>[Signature]</u>	DATE/TIME: <u>4/3/25 1634</u>	RECEIVED BY: <u>[Signature]</u> <u>1634</u>	Conditions of bottles or coolers at receipt: ☐ COMPLIANT ☐ NON COMPLIANT ☐ COOLER TEMP <u>2.7</u> °C
RELINQUISHED BY SAMPLER: 2. <u>[Signature]</u>	DATE/TIME:	RECEIVED BY: <u>[Signature]</u>	Comments: <u>See work order for list of site specific VOCs</u>
RELINQUISHED BY SAMPLER: 3. <u>[Signature]</u>	DATE/TIME: <u>4-3-25</u>	RECEIVED BY: <u>[Signature]</u>	<u>Preserve Dissolved Iron sample upon arrival to the lab</u>
			<u>Temp 2.7°C (Adjusted Factor +1) IR 6 on #1.</u>
Page <u>1</u> of <u>1</u>			CLIENT: ☐ Hand Delivered ☐ Other
			Shipment Complete ☐ YES ☐ NO

Laboratory Certification

Certified By	License No.
CAS EPA CLP Contract	68HERH20D0011
Connecticut	PH-0830
DOD ELAP (ANAB)	L2219
Maine	2024021
Maryland	296
New Hampshire	255424 Rev 1
New Jersey	20012
New York	11376
Pennsylvania	68-00548
Soil Permit	525-24-234-08441
Texas	T104704488

LOGIN REPORT/SAMPLE TRANSFER

Order ID : Q1731	JACO05	Order Date : 4/4/2025 10:52:00 AM	Project Mgr :
Client Name : JACOBS Engineering Grou		Project Name : Former Schlumberger STC	Report Type : Level 4
Client Contact : John Ynfante		Receive DateTime : 4/3/2025 6:20:00 PM	EDD Type : CH2MHILL
Invoice Name : JACOBS Engineering Grou		Purchase Order :	Hard Copy Date :
Invoice Contact : John Ynfante			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
Q1731-01	RMW-01B-82-040325	Water	04/03/2025	11:35					
					VOCMS Group3		8260-Low	2 Bus. Days	
Q1731-02	RMW-04B-91-040325	Water	04/03/2025	14:15					
					VOCMS Group3		8260-Low	2 Bus. Days	
Q1731-03	RMW-01B-82-040325-FD	Water	04/03/2025	11:40					
					VOCMS Group3		8260-Low	2 Bus. Days	
Q1731-04	RMW-03B-90-040325	Water	04/03/2025	15:10					
					VOCMS Group3		8260-Low	2 Bus. Days	
Q1731-05	EB01-040325	Water	04/03/2025	15:45					
					VOCMS Group3		8260-Low	2 Bus. Days	
Q1731-07	TB01-040325	Water	04/03/2025	16:00					
					VOCMS Group3		8260-Low	2 Bus. Days	

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Invoice Contact : John Ynfante			Date Signoff :

LAB ID	CLIENT ID	MATRIX	SAMPLE DATE	SAMPLE TIME	TEST	TEST GROUP	METHOD	FAX DATE	DUE DATES
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stored in ref #04
(VOA)

Relinquished By : 
Date / Time : 4/4/25 1120

Received By : 
Date / Time : 4-4-25 11:20

Storage Area : VOA Refridgerator Room