

## SDG COVER PAGE

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011  
Lab Code: ACE Case No.: 51821 MA No.: \_\_\_\_\_ SDG No.: MJNKG0  
SOW No. : SFAM01.1

| EPA Sample No. | Lab Sample Id   | ICP-AES           | Analysis Method |                   |                   |
|----------------|-----------------|-------------------|-----------------|-------------------|-------------------|
|                |                 |                   | ICP-MS          | Mercury           | Cyanide           |
| <u>MJNKG0</u>  | <u>P5249-01</u> | <u>          </u> | <u>X</u>        | <u>          </u> | <u>          </u> |
| <u>MJNKG0D</u> | <u>P5249-02</u> | <u>          </u> | <u>X</u>        | <u>          </u> | <u>          </u> |
| <u>MJNKG0S</u> | <u>P5249-03</u> | <u>          </u> | <u>X</u>        | <u>          </u> | <u>          </u> |

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the SDG Narrative. All edits and manual integrations have been peer-reviewed. Release of the data contained in this hardcopy Complete SDG File and in the electronic data submitted has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature.

Signature: \_\_\_\_\_ Name: \_\_\_\_\_  
Date: \_\_\_\_\_ Title: \_\_\_\_\_

68HERH20D0011

SDG # MJNKG0

Page 1 of 2

## USEPA CLP COC (LAB COPY)

DateShipped: 12/9/2024

CarrierName: FedEx

AirbillNo: 7706 1996 1749

## CHAIN OF CUSTODY RECORD

Case #: 51821

Cooler #: 7

No: 10-120924-133438-0009

Lab: Alliance Technical Group LLC

Lab Contact: Mohammad Ahmed

Lab Phone: 908-728-3151

| Sample Identifier | CLP Sample No. | Matrix/Sampler  | Coll. Method | Analysis/Turnaround (Days) | Tag/Preservative/Bottles | Location           | Collection Date/Time | For Lab Use Only |
|-------------------|----------------|-----------------|--------------|----------------------------|--------------------------|--------------------|----------------------|------------------|
| MJNKD0            | MJNKD0         | Sediment/ HH,MM | Grab         | ICP-MS(21)                 | 1322 (< 6 C) (1)         | OU6-CS-NA1-0.0-1.0 | 12/06/2024 13:15     | • 1-0            |
| MJNKD1            | MJNKD1         | Sediment/ HH,MM | Grab         | ICP-MS(21)                 | 1323 (< 6 C) (1)         | OU6-CS-NA1-1.0-1.7 | 12/06/2024 13:20     | ✓                |
| MJNKE0            | MJNKE0         | Sediment/ LV    | Grab         | ICP-MS(21)                 | 1332 (< 6 C) (1)         | OU6-CS-NA2-0.0-1.0 | 12/06/2024 14:15     | 3                |
| MJNKE1            | MJNKE1         | Sediment/ SB    | Grab         | ICP-MS(21)                 | 1333 (< 6 C) (1)         | OU6-CS-NA2-1.0-2.0 | 12/06/2024 14:20     | 4                |
| MJNKE2            | MJNKE2         | Sediment/ LV    | Grab         | ICP-MS(21)                 | 1334 (< 6 C) (1)         | OU6-CS-NA2-2.0-2.4 | 12/06/2024 14:30     | 5                |
| MJNKF0            | MJNKF0         | Sediment/ LV    | Grab         | ICP-MS(21)                 | 1342 (< 6 C) (1)         | OU6-CS-NA3-0.0-1.0 | 12/06/2024 11:45     | 1                |
| MJNKF1            | MJNKF1         | Sediment/ LV    | Grab         | ICP-MS(21)                 | 1343 (< 6 C) (1)         | OU6-CS-NA3-1.0-1.5 | 12/06/2024 12:00     | 2                |
| MJNKG0            | MJNKG0         | Sediment/ LV    | Grab         | ICP-MS(21)                 | 1352 (< 6 C) (1)         | OU6-CS-NA4-0.0-1.0 | 12/06/2024 15:10     | • 2              |
| MJNKG1            | MJNKG1         | Sediment/ MM    | Grab         | ICP-MS(21)                 | 1353 (< 6 C) (1)         | OU6-CS-NA4-1.0-2.0 | 12/06/2024 15:20     | 5                |
| MJNKG2            | MJNKG2         | Sediment/ LV    | Grab         | ICP-MS(21)                 | 1354 (< 6 C) (1)         | OU6-CS-NA4-2.0-2.1 | 12/06/2024 15:30     | 9                |

Sample(s) to be used for Lab QC: MJNKD0 Tag 1322, MJNKG0 Tag 1352

Analysis Key: ICP-MS=CLP Metals (As, Cu, Pb, Zn)-Sediment

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

| Items/Reason | Relinquished by (Signature and Organization) | Date/Time    | Received by (Signature and Organization) | Date/Time      | Sample Condition Upon Receipt |
|--------------|----------------------------------------------|--------------|------------------------------------------|----------------|-------------------------------|
|              | Kadey Eley Jacobs                            | 12/9/24 1400 | Deanna                                   | 12-10-24 16:15 | IF Cont 1 2.6                 |
|              |                                              |              |                                          |                | As body Seal Intact           |
|              |                                              |              |                                          |                | cap & bk present              |

FORM DC-1  
SAMPLE LOG-IN SHEET

|                                                |                       |                               |
|------------------------------------------------|-----------------------|-------------------------------|
| Lab Name : Alliance Technical Group, LLC       |                       | Page <u>1</u> of <u>1</u>     |
| Received By (Print Name) <u>Cassandra Peña</u> |                       | Log-in Date <b>12/10/2024</b> |
| Received By (Signature) <u>[Signature]</u>     |                       |                               |
| Case Number <b>51821</b>                       | SDG No. <b>MJNKG0</b> | MA No. <b>N/A</b>             |

|                                                                                          |                                    |
|------------------------------------------------------------------------------------------|------------------------------------|
| Remarks:                                                                                 |                                    |
| 1. Custody Seal (s)                                                                      | Present, Intact                    |
| 2. Custody Seal Nos.                                                                     | <u>0543414,0543415</u>             |
| 3. Traffic Reports/Chain Of Custody Records                                              | Present                            |
| 4. Airbill                                                                               | Present                            |
| 5. Airbill No. and Shipping Container ID No.                                             | <u>770619951749</u><br><u>1</u>    |
| 6. Shipping Container Temperature Indicator Bottle                                       | Present                            |
| 7. Shipping Container Temperature                                                        | <u>2.6</u> Degree C                |
| 8. Sample Condition                                                                      | Intact                             |
| 9. Sample Tags<br>Sample Tag Numbers                                                     | Absent<br>Listed on Traffic Report |
| 10. Does information on Traffic Reports/Chain of Custody Records and Sample Tags agree ? | Yes                                |
| 11. Date Received at Lab                                                                 | <u>12/10/2024</u>                  |
| 12. Time Received                                                                        | <u>16:15</u>                       |

|    | EPA Sample # | Aqueous/<br>Water Sample pH | Corresponding |                | Remarks:<br>Condition of Sample Shipment, etc. |
|----|--------------|-----------------------------|---------------|----------------|------------------------------------------------|
|    |              |                             | Sample Tag #  | Assigned Lab # |                                                |
| 1  | MJNKG0       | N/A                         | 1352          | P5249-01       | Intact                                         |
| 2  | MJNKG0D      | N/A                         | 1352          | P5249-02       | Intact                                         |
| 3  | MJNKG0S      | N/A                         | 1352          | P5249-03       | Intact                                         |
| 4  | N/A          | N/A                         | N/A           | N/A            | N/A                                            |
| 5  | N/A          | N/A                         | N/A           | N/A            | N/A                                            |
| 6  | N/A          | N/A                         | N/A           | N/A            | N/A                                            |
| 7  | N/A          | N/A                         | N/A           | N/A            | N/A                                            |
| 8  | N/A          | N/A                         | N/A           | N/A            | N/A                                            |
| 9  | N/A          | N/A                         | N/A           | N/A            | N/A                                            |
| 10 | N/A          | N/A                         | N/A           | N/A            | N/A                                            |
| 11 | N/A          | N/A                         | N/A           | N/A            | N/A                                            |
| 12 | N/A          | N/A                         | N/A           | N/A            | N/A                                            |
| 13 | N/A          | N/A                         | N/A           | N/A            | N/A                                            |
| 14 | N/A          | N/A                         | N/A           | N/A            | N/A                                            |
| 15 | N/A          | N/A                         | N/A           | N/A            | N/A                                            |
| 16 | N/A          | N/A                         | N/A           | N/A            | N/A                                            |
| 17 | N/A          | N/A                         | N/A           | N/A            | N/A                                            |
| 18 | N/A          | N/A                         | N/A           | N/A            | N/A                                            |
| 19 | N/A          | N/A                         | N/A           | N/A            | N/A                                            |
| 20 | N/A          | N/A                         | N/A           | N/A            | N/A                                            |
| 21 | N/A          | N/A                         | N/A           | N/A            | N/A                                            |
| 22 | N/A          | N/A                         | N/A           | N/A            | N/A                                            |
| 23 | N/A          | N/A                         | N/A           | N/A            | N/A                                            |

\* Contact SMO and attach record of resolution

|                                |                             |
|--------------------------------|-----------------------------|
| Reviewed By <u>[Signature]</u> | Logbook No. <b>N/A</b>      |
| Date <u>12/11/24</u>           | Logbook Page No. <b>N/A</b> |

FORM DC-2  
COMPLETE SDG FILE (CSF) INVENTORY SHEET

|              |                               |         |          |
|--------------|-------------------------------|---------|----------|
| LAB NAME     | Alliance Technical Group, LLC |         |          |
| LAB CODE     | ACE                           |         |          |
| CONTRACT NO. | 68HERH20D0011                 |         |          |
| CASE NO.     | 51821                         | SDG NO. | MJNKG0   |
| MA NO.       |                               | SOW NO. | SFAM01.1 |

All documents delivered in the Complete SDG File must be original documents where possible.  
(Reference - Exhibit B Section 2.4)

|                                              | PAGE NOS: |    | CHECK |        |
|----------------------------------------------|-----------|----|-------|--------|
|                                              | FROM      | TO | LAB   | REGION |
| 1. SDG Cover Page                            | 1         | 1  | ✓     |        |
| 2. Traffic Report/Chain of Custody Record(s) | 2         | 2  | ✓     |        |
| 3. Sample Log-In Sheet (DC-1)                | 3         | 3  | ✓     |        |
| 4. CSF Inventory Sheet (DC-2)                | 4         | 6  | ✓     |        |
| 5. SDG Narrative                             | 7         | 9  | ✓     |        |
| 6. Communication Logs                        | 10        | 17 | ✓     |        |
| 7. Percent Solids Log                        | 18        | 19 | ✓     |        |

**Analysis Forms and Data (ICP-AES)**

|                                                                                                                        |    |    |   |  |
|------------------------------------------------------------------------------------------------------------------------|----|----|---|--|
| 8. Sample Analysis Data Forms (1A-OR, 1B-OR, and 1-IN) for each sample or sample analysis, laboratory QC as applicable | NA | NA | ✓ |  |
| 9. Instrument raw data by instrument in analysis order                                                                 | NA | NA | ✓ |  |

**Other Data**

|                                                                                            |    |    |   |  |
|--------------------------------------------------------------------------------------------|----|----|---|--|
| 10. Standard and Reagent Preparation Logs                                                  | NA | NA | ✓ |  |
| 11. Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks   | NA | NA | ✓ |  |
| 12. Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks | NA | NA | ✓ |  |
| 13. Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions               | NA | NA | ✓ |  |
| 14. Extraction Logs for TCLP and SPLP                                                      | NA | NA | ✓ |  |
| 15. Raw GPC Data                                                                           | NA | NA | ✓ |  |
| 16. Raw Florisil Data                                                                      | NA | NA | ✓ |  |

**Analysis Forms and Data (ICP-MS)**

|                                                                                                                         |    |     |   |  |
|-------------------------------------------------------------------------------------------------------------------------|----|-----|---|--|
| 17. Sample Analysis Data Forms (1A-OR, 1B-OR, and 1-IN) for each sample or sample analysis, laboratory QC as applicable | 20 | 20  | ✓ |  |
| 18. Instrument raw data by instrument in analysis order                                                                 | 21 | 275 | ✓ |  |

**Other Data**

|                                                                                            |     |     |   |  |
|--------------------------------------------------------------------------------------------|-----|-----|---|--|
| 19. Standard and Reagent Preparation Logs                                                  | 276 | 410 | ✓ |  |
| 20. Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks   | 411 | 412 | ✓ |  |
| 21. Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks | 413 | 417 | ✓ |  |
| 22. Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions               | NA  | NA  | ✓ |  |

- 23 . Extraction Logs for TCLP and SPLP
- 24 . Raw GPC Data
- 25 . Raw Florisil Data

| PAGE NOS: |    | CHECK |        |
|-----------|----|-------|--------|
| FROM      | TO | LAB   | REGION |
| NA        | NA | ✓     |        |
| NA        | NA | ✓     |        |
| NA        | NA | ✓     |        |

#### Analysis Forms and Data (Mercury)

- 26 . Sample Analysis Data Forms (1A-OR, 1B-OR, and 1-IN) for each sample or sample analysis, laboratory QC as applicable
- 27 . Instrument raw data by instrument in analysis order

|    |    |   |  |
|----|----|---|--|
| NA | NA | ✓ |  |
| NA | NA | ✓ |  |

#### Other Data

- 28 . Standard and Reagent Preparation Logs
- 29 . Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks
- 30 . Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks
- 31 . Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions
- 32 . Extraction Logs for TCLP and SPLP
- 33 . Raw GPC Data
- 34 . Raw Florisil Data

|    |    |   |  |
|----|----|---|--|
| NA | NA | ✓ |  |
| NA | NA | ✓ |  |
| NA | NA | ✓ |  |
| NA | NA | ✓ |  |
| NA | NA | ✓ |  |
| NA | NA | ✓ |  |
| NA | NA | ✓ |  |

#### Analysis Forms and Data (Cyanide)

- 35 . Sample Analysis Data Forms (1A-OR, 1B-OR, and 1-IN) for each sample or sample analysis, laboratory QC as applicable
- 36 . Instrument raw data by instrument in analysis order

|    |    |   |  |
|----|----|---|--|
| NA | NA | ✓ |  |
| NA | NA | ✓ |  |

#### Other Data

- 37 . Standard and Reagent Preparation Logs
- 38 . Original Preparation and Cleanup forms or copies of Preparation and Cleanup Logbooks
- 39 . Original Analysis or Instrument Run forms or copies of Analysis or Instrument Logbooks
- 40 . Performance Evaluation (PE)/Proficiency Testing (PT) Sample Instructions
- 41 . Extraction Logs for TCLP and SPLP
- 42 . Raw GPC Data
- 43 . Raw Florisil Data

|    |    |   |  |
|----|----|---|--|
| NA | NA | ✓ |  |
| NA | NA | ✓ |  |
| NA | NA | ✓ |  |
| NA | NA | ✓ |  |
| NA | NA | ✓ |  |
| NA | NA | ✓ |  |
| NA | NA | ✓ |  |

**Additional**

## 44. EPA Shipping/Receiving Documents

Airbill (No. of Shipments 1)

Sample Tags

Sample Log-In Sheet (Lab)

## 45. Misc. Shipping/Receiving Records (list all individual records)

46. Internal Lab Sample Transfer Records and Tracking Sheets  
(describe or list)47. Other Records and related Communication Logs  
(describe or list)

## 48. Comments:

Completed by:  
(CLP Lab)Audited by:  
(EPA)

Nimisha Pandya, Document Control Officer

(Signature)

(Print Name &amp; Title)

(Date)

(Signature)

(Print Name &amp; Title)

(Date)

| PAGE NOs: |     | CHECK |        |
|-----------|-----|-------|--------|
| FROM      | TO  | LAB   | REGION |
| 418       | 418 | ✓     |        |
| NA        | NA  | ✓     |        |
| 419       | 419 | ✓     |        |
| NA        | NA  | ✓     |        |
| 420       | 420 | ✓     |        |
| NA        | NA  | ✓     |        |



**284 Sheffield Street  
Mountainside, NJ 07092**

## **SDG NARRATIVE**

**USEPA**

**SDG # MJNKG0**

**CASE # 51821**

**CONTRACT # 68HERH20D0011**

**SOW# SFAM01.1**

**LAB NAME: Alliance Technical Group, LLC**

**LAB CODE: ACE**

**LAB ORDER ID # P5249**

### **A. Number of Samples and Date of Receipt**

01 Soil sample was delivered to the laboratory intact on 12/10/2024

### **B. Parameters**

Test requested for Metals CLP4 MS = Arsenic, Copper, Lead, Zinc.

### **C. Cooler Temp**

Indicator Bottle: **Presence**/Absence

Cooler: 2.6°C

### **D. Detail Documentation (related to Sample Handling Shipping, Analytical Problem, Temp of Cooler etc):**

Issue 1 : A "P" or "M" prefix was listed at the beginning of a CLP sample ID.

Issue 2: The laboratory received the attached COC for Case 51821, but this COC is missing the relinquished information.

### **E. Corrective Action taken for above:**

Resolution 1 : To maintain COC integrity, ASB requests no changes to the Sample IDs. The laboratory will note the issue in the SDG Narrative and proceed with the analysis of the samples.

Resolution 2: Per Region 10, a corrected COC has been attached with the relinquished information. Please note the issue in the SDG Narrative and proceed with analysis of the samples.



**284 Sheffield Street  
Mountainside, NJ 07092**

#### **F. Analytical Techniques:**

All analyses were based on CLP Methodology by method SFAM01.1.

#### **G. Calculation:**

##### **Calculation for ICP-MS Soil Sample:**

Conversion of Results from  $\mu\text{g/L}$  or ppb to  $\text{mg/kg}$  :

$$\text{Concentration (mg/kg)} = C \times \frac{V_f}{W \times S} \times \text{DF} / 1000$$

Where,

C = Instrument value in ppb (The average of all replicate integrations)

Vf = Final digestion volume (mL)

W = Initial aliquot amount (g) (Fraction of Sample amount taken in prep)

S = % Solids / 100 (Fraction of Percent Solids)

DF = Dilution Factor

##### **Example Calculation For Sample MJNKG0 For Arsenic:**

If C = 536.40 ppb

Vf = 500 ml

W = 1.25 g

S = 0.736(73.6/100)

DF = 1

$$\text{Concentration (mg/kg)} = 536.40 \times \frac{500}{1.25 \times 0.736} \times 1 / 1000$$

$$= 291.52 \text{ mg/kg}$$

$$= 290 \text{ mg/kg (Reported Result with Signification)}$$

#### **H. QA/ QC**

Calibrations met requirements. Interference check met requirements. Blank analyses did not indicate any presence of contamination. Laboratory Control sample was within control limits. Spike sample did meet requirements. Duplicate sample did meet requirements. Serial Dilution did meet requirements.

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.



**284 Sheffield Street  
Mountainside, NJ 07092**

Internal Standard Association for ICP-MS analysis.

| Target Analyte | Associated<br>Internal Standard |
|----------------|---------------------------------|
| Arsenic        | 89Y                             |
| Copper         | 45Sc                            |
| Lead           | 209Bi                           |
| Zinc           | 45Sc                            |

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 Director or his designee, as verified by the following signature.

Signature\_\_\_\_\_

Name: Nimisha Pandya

Date \_\_\_\_\_

Title: Document Control Officer

---

**From:** Shaeffer, Casey <Casey.Shaeffer@gdit.com>  
**Sent:** Wednesday, December 11, 2024 12:14 PM  
**To:** Deepak Parmar; Sohil Jodhani; Mohammad Ahmed  
**Cc:** Johnson, Matthew; Bauer, Heather E; Dunn, Meghan (she/her/hers); Reece, Caitlin  
**Subject:** Region 10 | Case 51821 | Lab ACE | Issue Discrepancies with tags, jars, and/or COC | FINAL  
**Attachments:** SKM\_95824121016080\_Relinquished\_Rev1.pdf

EXTERNAL EMAIL - This email was sent by a person from outside your organization. Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Secured by Check Point

\*\*\*Updated Record of Communication\*\*\*

This Record of Communication is being updated to include the corrected COC.

Good afternoon,

Please see the below resolution from Region 10.

Issue: The laboratory received the attached COC for Case 51821, but this COC is missing the relinquished information.  
Resolution: Per Region 10, a corrected COC has been attached with the relinquished information. Please note the issue in the SDG Narrative and proceed with analysis of the samples.

Please note that the laboratory may contact the appropriate CLP PM should any defects need to be waived for this issue.

Thank you,

Casey Shaeffer

Associate Environmental Analyst  
CLP QSS Coordinator – EPA Regions 4 & 10

*Under contract to the EPA*

T: (571) 454-2416  
[casey.shaeffer@gdit.com](mailto:casey.shaeffer@gdit.com)  
15036 Conference Center Drive  
Chantilly, VA 20151  
[www.gdit.com](http://www.gdit.com)

**GENERAL DYNAMICS**  
מגדל המחקר והפיתוח

**Leave Alert: December 24, 2024**

---

**From:** Dunn, Meghan (she/her/hers) <dunn.meghan@epa.gov>  
**Sent:** Wednesday, December 11, 2024 12:10 PM  
**To:** Shaeffer, Casey <Casey.Shaeffer@gdit.com>; Reece, Caitlin <Reece.Caitlin@epa.gov>  
**Subject:** RE: Region 10 | Case 51821 | Lab ACE | Issue Discrepancies with tags, jars, and/or COC

**This Message Is From an External Sender**

Please use caution with links, attachments, and any requests for credentials.

Hi Casey,

Please see attached fully signed/relinquished COC.

Thank you,  
Meghan

---

**From:** Shaeffer, Casey <[Casey.Shaeffer@gdit.com](mailto:Casey.Shaeffer@gdit.com)>  
**Sent:** Wednesday, December 11, 2024 7:19 AM  
**To:** Dunn, Meghan (she/her/hers) <[dunn.meghan@epa.gov](mailto:dunn.meghan@epa.gov)>; Reece, Caitlin <[Reece.Caitlin@epa.gov](mailto:Reece.Caitlin@epa.gov)>  
**Subject:** Region 10 | Case 51821 | Lab ACE | Issue Discrepancies with tags, jars, and/or COC

**Caution:** This email originated from outside EPA, please exercise additional caution when deciding whether to open attachments or click on provided links.

Good morning,

Thank you for your response. Please note that the updated COC does not include relinquished information for the second page of samples and advise on how the laboratory may proceed.

Thank you,

Casey Shaeffer

Associate Environmental Analyst  
CLP QSS Coordinator – EPA Regions 4 & 10  
*Under contract to the EPA*

T: (571) 454-2416  
[casey.shaeffer@gdit.com](mailto:casey.shaeffer@gdit.com)  
15036 Conference Center Drive  
Chantilly, VA 20151  
[www.gdit.com](http://www.gdit.com)

**GENERAL DYNAMICS**  
GENERAL DYNAMICS

**Leave Alert: December 24, 2024**

---

**From:** Deepak Parmar <[Deepak.Parmar@alliancetg.com](mailto:Deepak.Parmar@alliancetg.com)>

**Sent:** Wednesday, December 11, 2024 10:15 AM

**To:** Shaeffer, Casey <[Casey.Shaeffer@gdit.com](mailto:Casey.Shaeffer@gdit.com)>; Mohammad Ahmed <[mohammad.ahmed@alliancetg.com](mailto:mohammad.ahmed@alliancetg.com)>; Sohil Jodhani <[Sohil.Jodhani@AllianceTG.com](mailto:Sohil.Jodhani@AllianceTG.com)>

**Cc:** Johnson, Matthew <[Matthew.Johnson32@gdit.com](mailto:Matthew.Johnson32@gdit.com)>; Bauer, Heather E <[Heather.Bauer@gdit.com](mailto:Heather.Bauer@gdit.com)>; Dunn, Meghan (she/her/hers) <[dunn.meghan@epa.gov](mailto:dunn.meghan@epa.gov)>; Reece, Caitlin <[Reece.Caitlin@epa.gov](mailto:Reece.Caitlin@epa.gov)>

**Subject:** RE: Region 10 | Case 51821 | Lab ACE | Issue Discrepancies with tags, jars, and/or COC | FINAL

---

**This Message Is From an External Sender**

Please use caution with links, attachments, and any requests for credentials.

Good morning,

2<sup>nd</sup> page of COC is missing the relinquished information.

**Thanks & Regards,**



**Deepak Parmar**

QA/QC

An Alliance Technical Group Company

Main: 908-789-8900

Direct: 908-728-3154

Address: 284 Sheffield St, Ste 1, Mountainside, NJ 07092

[www.alliancetg.com](http://www.alliancetg.com)



---

**From:** Shaeffer, Casey <[Casey.Shaeffer@gdit.com](mailto:Casey.Shaeffer@gdit.com)>

**Sent:** Wednesday, December 11, 2024 9:21 AM

**To:** Mohammad Ahmed <[Mohammad.Ahmed@AllianceTG.com](mailto:Mohammad.Ahmed@AllianceTG.com)>; Deepak Parmar <[Deepak.Parmar@alliancetg.com](mailto:Deepak.Parmar@alliancetg.com)>; Sohil Jodhani <[Sohil.Jodhani@AllianceTG.com](mailto:Sohil.Jodhani@AllianceTG.com)>

**Cc:** Johnson, Matthew <[Matthew.Johnson32@gdit.com](mailto:Matthew.Johnson32@gdit.com)>; Bauer, Heather E <[Heather.Bauer@gdit.com](mailto:Heather.Bauer@gdit.com)>; Dunn, Meghan (she/her/hers) <[dunn.meghan@epa.gov](mailto:dunn.meghan@epa.gov)>; Reece, Caitlin <[Reece.Caitlin@epa.gov](mailto:Reece.Caitlin@epa.gov)>

**Subject:** Region 10 | Case 51821 | Lab ACE | Issue Discrepancies with tags, jars, and/or COC | FINAL

---

EXTERNAL EMAIL - This email was sent by a person from outside your organization. Exercise caution when clicking links, opening attachments or taking further action, before validating its authenticity.

Secured by Check Point

Good morning,

Please see the below resolution from Region 10.

Issue: The laboratory received the attached COC for Case 51821, but this COC is missing the relinquished information. Resolution: Per Region 10, a corrected COC has been attached with the relinquished information. Please note the issue in the SDG Narrative and proceed with analysis of the samples.

Please note that the laboratory may contact the appropriate CLP PM should any defects need to be waived for this issue.

Thank you,

Casey Shaeffer

Associate Environmental Analyst  
CLP QSS Coordinator – EPA Regions 4 & 10

*Under contract to the EPA*

T: (571) 454-2416  
[casey.shaeffer@gdit.com](mailto:casey.shaeffer@gdit.com)  
15036 Conference Center Drive  
Chantilly, VA 20151  
[www.gdit.com](http://www.gdit.com)



**Leave Alert: December 24, 2024**

---

**From:** Dunn, Meghan (she/her/hers) <[dunn.meghan@epa.gov](mailto:dunn.meghan@epa.gov)>  
**Sent:** Tuesday, December 10, 2024 6:38 PM  
**To:** Shaeffer, Casey <[Casey.Shaeffer@gdit.com](mailto:Casey.Shaeffer@gdit.com)>; Reece, Caitlin <[Reece.Caitlin@epa.gov](mailto:Reece.Caitlin@epa.gov)>  
**Subject:** RE: Region 10 | Case 51821 | Lab ACE | Issue Discrepancies with tags, jars, and/or COC

**This Message Is From an External Sender**

Please use caution with links, attachments, and any requests for credentials.

Hi Casey,

The field sampler was able to electronically back-date and sign the COC. Please see the attached COC for the lab's records.

Thank you,  
Meghan



---

**Meghan Dunn**  
QA Chemist / RSCC  
(Regional Sample Control Coordinator)  
U.S. EPA, Region 10  
Cell (206) 330-6743  
Office (206) 553-8561

---

---

**From:** Shaeffer, Casey <[Casey.Shaeffer@gdit.com](mailto:Casey.Shaeffer@gdit.com)>

**Sent:** Tuesday, December 10, 2024 1:44 PM

**To:** Dunn, Meghan (she/her/hers) <[dunn.meghan@epa.gov](mailto:dunn.meghan@epa.gov)>; Reece, Caitlin <[Reece.Caitlin@epa.gov](mailto:Reece.Caitlin@epa.gov)>

**Subject:** Region 10 | Case 51821 | Lab ACE | Issue Discrepancies with tags, jars, and/or COC

**Caution:** This email originated from outside EPA, please exercise additional caution when deciding whether to open attachments or click on provided links.

Good afternoon,

Please see the below issue from ACE.

Issue: The laboratory received the attached COC for Case 51821, but this COC is missing the relinquished information.

Thank you,

Casey Shaeffer

Associate Environmental Analyst  
CLP QSS Coordinator – EPA Regions 4 & 10  
*Under contract to the EPA*

T: (571) 454-2416  
[casey.shaeffer@gdit.com](mailto:casey.shaeffer@gdit.com)  
15036 Conference Center Drive  
Chantilly, VA 20151  
[www.gdit.com](http://www.gdit.com)

**GENERAL DYNAMICS**  
AEROSPACE TECHNOLOGIES

**Leave Alert: December 24, 2024**

---

**From:** Deepak Parmar <[Deepak.Parmar@alliancetg.com](mailto:Deepak.Parmar@alliancetg.com)>

**Sent:** Tuesday, December 10, 2024 4:22 PM

**To:** Hairston, Miles (NE) <[Miles.Hairston@gdit.com](mailto:Miles.Hairston@gdit.com)>

**Cc:** Sohil Jodhani <[Sohil.Jodhani@AllianceTG.com](mailto:Sohil.Jodhani@AllianceTG.com)>

**Subject:** Region 10 | Case 51821 | Lab CHM | Issue Discrepancies with tags, jars, and/or COC

**This Message Is From an External Sender**

Please use caution with links, attachments, and any requests for credentials.

Good afternoon,

Issue 1: All COC missing relinquished information.

Please see attachment for your reference.

Thanks & Regards,



**Deepak Parmar**

QA/QC

**An Alliance Technical Group Company**

Main: 908-789-8900

Direct: 908-728-3154

Address: 284 Sheffield St, Ste 1, Mountainside, NJ 07092

[www.alliancetg.com](http://www.alliancetg.com)



USEPA CLP COC (LAB COPY)

Date Shipped: 12/9/2024

Carrier Name: FedEx

Airbill No: 7706 1995 1749

CHAIN OF CUSTODY RECORD

Case #: 51821

Cooler #: 7

No: 10-120924-133438-0009

Lab: Alliance Technical Group LLC

Lab Contact: Mohammad Ahmed

Lab Phone: 908-728-3151

| Sample Identifier | CLP Sample No. | Matrix/Sampler  | Coll. Method | Analysis/Turnaround (Days) | Tag/Preservative/Bottles | Location            | Collection Date/Time | For Lab Use Only |
|-------------------|----------------|-----------------|--------------|----------------------------|--------------------------|---------------------|----------------------|------------------|
| MJNKD0            | MJNKD0         | Sediment/ HH,MM | Grab         | ICP-MS(21)                 | 1322 (< 6 C) (1)         | OU6-CS-NA1- 0.0-1.0 | 12/06/2024 13:15     | • 1-02           |
| MJNKD1            | MJNKD1         | Sediment/ HH,MM | Grab         | ICP-MS(21)                 | 1323 (< 6 C) (1)         | OU6-CS-NA1- 1.0-1.7 | 12/06/2024 13:20     | ✓                |
| MJNKE0            | MJNKE0         | Sediment/ LV    | Grab         | ICP-MS(21)                 | 1332 (< 6 C) (1)         | OU6-CS-NA2- 0.0-1.0 | 12/06/2024 14:15     | 3                |
| MJNKE1            | MJNKE1         | Sediment/ SB    | Grab         | ICP-MS(21)                 | 1333 (< 6 C) (1)         | OU6-CS-NA2- 1.0-2.0 | 12/06/2024 14:20     | 4                |
| MJNKE2            | MJNKE2         | Sediment/ LV    | Grab         | ICP-MS(21)                 | 1334 (< 6 C) (1)         | OU6-CS-NA2- 2.0-2.4 | 12/06/2024 14:30     | 5                |
| MJNKF0            | MJNKF0         | Sediment/ LV    | Grab         | ICP-MS(21)                 | 1342 (< 6 C) (1)         | OU6-CS-NA3- 0.0-1.0 | 12/06/2024 11:45     | ✓                |
| MJNKF1            | MJNKF1         | Sediment/ LV    | Grab         | ICP-MS(21)                 | 1343 (< 6 C) (1)         | OU6-CS-NA3- 1.0-1.5 | 12/06/2024 12:00     | 3                |
| MJNKG0            | MJNKG0         | Sediment/ LV    | Grab         | ICP-MS(21)                 | 1352 (< 6 C) (1)         | OU6-CS-NA4- 0.0-1.0 | 12/06/2024 15:10     | •                |
| MJNKG1            | MJNKG1         | Sediment/ MM    | Grab         | ICP-MS(21)                 | 1353 (< 6 C) (1)         | OU6-CS-NA4- 1.0-2.0 | 12/06/2024 15:20     | 5                |
| MJNKG2            | MJNKG2         | Sediment/ LV    | Grab         | ICP-MS(21)                 | 1354 (< 6 C) (1)         | OU6-CS-NA4- 2.0-2.1 | 12/06/2024 15:30     | 9                |

Sample(s) to be used for Lab QC: MJNKD0 Tag 1322, MJNKG0 Tag 1352

0543414, 0543415

Analysis Key: ICP-MS=CLP Metals (As, Cu, Pb, Zn)-Sediment

| Shipment for Case Complete? N |                                              |           |                                          |           | Samples Transferred From Chain of Custody # |  |
|-------------------------------|----------------------------------------------|-----------|------------------------------------------|-----------|---------------------------------------------|--|
| Items/Reason                  | Relinquished by (Signature and Organization) | Date/Time | Received by (Signature and Organization) | Date/Time | Sample Condition Upon Receipt               |  |
|                               | <i>Kadey Eloy</i>                            | Jacobs    | 12/9/24 1400                             |           |                                             |  |
|                               |                                              |           |                                          | 12:15     | if can't 2.6                                |  |
|                               |                                              |           |                                          |           | Custody Seal Intact                         |  |
|                               |                                              |           |                                          |           | cap & lock present                          |  |

## CHAIN OF CUSTODY RECORD

**No: 10-120924-133438-0009**

DateShipped: 12/9/2024

CarrierName: FedEx

AirbillNo: 7706 1995 1749

Case #: 51821

Cooler #: 7

Lab: Alliance Technical Group LLC  
Lab Contact: Mohammad Ahmed  
Lab Phone: 908-728-3151

[illegible]

**Special Instructions:**

**Shipment for Case Complete? N**

### Samples Transferred From Chain of Custody #

**Analysis Key:** ICP-MS=CLP Metals (As, Cu, Pb, Zn)-Sediment

| Items/Reason | Relinquished by (Signature and Organization)                                                     | Date/Time                                                                                                                                                              | Received by (Signature and Organization)                                            | Date/Time                                                                                       | Sample Condition Upon Receipt |
|--------------|--------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------|
|              | <br>Rodney Eley | <br> |  | <br>12-10-24 | 1615<br>ZD-Butter 2.6"        |
|              |                                                                                                  |                                                                                                                                                                        |                                                                                     |                                                                                                 | Custody Seal Intact           |
|              |                                                                                                  |                                                                                                                                                                        |                                                                                     |                                                                                                 | Temp Blank present            |

17

# PERCENT SOLID

Supervisor: Iwona  
Analyst: jignesh  
Date: 12/16/2024

OVENTEMP IN Celsius(°C): 107  
Time IN: 12:25  
In Date: 12/13/2024  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
OvenID: M OVEN#1

OVENTEMP OUT Celsius(°C): 103  
Time OUT: 07:30  
Out Date: 12/14/2024  
Weight Check 1.0g: 1.00  
Weight Check 10g: 10.00  
BalanceID: M SC-4  
Thermometer ID: % SOLID- OVEN

QC:LB133937

| Lab ID   | Client SampleID | Dish # | Dish Wt(g) (A) | Sample Wt(g) | Dish + Sample Wt(g) (B) | Dish+Dry Sample Wt(g) (C) | % Solid | Comments |
|----------|-----------------|--------|----------------|--------------|-------------------------|---------------------------|---------|----------|
| P5248-01 | MJNKD0          | 1      | 1.15           | 8.55         | 9.7                     | 7.11                      | 69.7    |          |
| P5248-02 | MJNKD0D         | 2      | 1.15           | 8.55         | 9.7                     | 7.11                      | 69.7    |          |
| P5248-03 | MJNKDOS         | 3      | 1.15           | 8.55         | 9.7                     | 7.11                      | 69.7    |          |
| P5248-04 | MJNKD1          | 4      | 1.18           | 8.63         | 9.81                    | 8.02                      | 79.3    |          |
| P5248-05 | MJNKE0          | 5      | 1.15           | 8.82         | 9.97                    | 7.79                      | 75.3    |          |
| P5248-06 | MJNKE1          | 6      | 1.15           | 8.43         | 9.58                    | 8.17                      | 83.3    |          |
| P5248-07 | MJNKE2          | 7      | 1.14           | 8.78         | 9.92                    | 8.25                      | 81.0    |          |
| P5248-08 | MJNKF0          | 8      | 1.15           | 8.46         | 9.61                    | 6.98                      | 68.9    |          |
| P5248-09 | MJNKF1          | 9      | 1.15           | 8.76         | 9.91                    | 8.55                      | 84.5    |          |
| P5248-10 | MJNKG1          | 10     | 1.13           | 8.45         | 9.58                    | 8.21                      | 83.8    |          |
| P5248-11 | MJNKG2          | 11     | 1.15           | 8.84         | 9.99                    | 8.65                      | 84.8    |          |
| P5248-12 | MJNLH6          | 12     | 1.15           | 8.67         | 9.82                    | 6.92                      | 66.6    |          |
| P5248-13 | MJNLH7          | 13     | 1.15           | 8.79         | 9.94                    | 8.07                      | 78.7    |          |
| P5248-14 | MJNLH8          | 14     | 1.16           | 8.46         | 9.62                    | 7.51                      | 75.1    |          |
| P5249-01 | MJNKG0          | 15     | 1.18           | 8.79         | 9.97                    | 7.65                      | 73.6    |          |
| P5249-02 | MJNKG0D         | 16     | 1.18           | 8.79         | 9.97                    | 7.65                      | 73.6    |          |
| P5249-03 | MJNKG0S         | 17     | 1.18           | 8.79         | 9.97                    | 7.65                      | 73.6    |          |
| P5257-01 | JNLH4           | 18     | 1.15           | 8.84         | 9.99                    | 7.35                      | 70.1    |          |
| P5257-02 | JNLH5           | 19     | 1.17           | 8.57         | 9.74                    | 6.76                      | 65.2    |          |

$$\% \text{ Solid} = \frac{(C-A) * 100}{(B-A)}$$

# WORKLIST(Hardcopy Internal Chain)

133937

WorkList Name : %1-p5248 WorkList ID : 186313 Department : Wet-Chemistry Date : 12-13-2024 10:12:39

| Sample   | Customer Sample | Matrix | Test           | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method       |
|----------|-----------------|--------|----------------|--------------|----------|-----------------------------|--------------|--------------|
| P5248-01 | MJNKD0          | Solid  | Percent Solids | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | Chemtech -SO |
| P5248-02 | MJNKD0D         | Solid  | Percent Solids | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | Chemtech -SO |
| P5248-03 | MJNKD0S         | Solid  | Percent Solids | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | Chemtech -SO |
| P5248-04 | MJNKD1          | Solid  | Percent Solids | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | Chemtech -SO |
| P5248-05 | MJNKE0          | Solid  | Percent Solids | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | Chemtech -SO |
| P5248-06 | MJNKE1          | Solid  | Percent Solids | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | Chemtech -SO |
| P5248-07 | MJNKE2          | Solid  | Percent Solids | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | Chemtech -SO |
| P5248-08 | MJNKF0          | Solid  | Percent Solids | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | Chemtech -SO |
| P5248-09 | MJNKF1          | Solid  | Percent Solids | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | Chemtech -SO |
| P5248-10 | MJNKG1          | Solid  | Percent Solids | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | Chemtech -SO |
| P5248-11 | MJNKG2          | Solid  | Percent Solids | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | Chemtech -SO |
| P5248-12 | MJNLH6          | Solid  | Percent Solids | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | Chemtech -SO |
| P5248-13 | MJNLH7          | Solid  | Percent Solids | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | Chemtech -SO |
| P5248-14 | MJNLH8          | Solid  | Percent Solids | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | Chemtech -SO |
| P5249-01 | MJNKG0          | Solid  | Percent Solids | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | Chemtech -SO |
| P5249-02 | MJNKG0D         | Solid  | Percent Solids | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | Chemtech -SO |
| P5249-03 | MJNKG0S         | Solid  | Percent Solids | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | Chemtech -SO |
| P5257-01 | JNLH4           | Solid  | Percent Solids | Cool 4 deg C | USEP04   | C21                         | 12/06/2024   | Chemtech -SO |
| P5257-02 | JNLH5           | Solid  | Percent Solids | Cool 4 deg C | USEP04   | C21                         | 12/06/2024   | Chemtech -SO |

19

Date/Time 12-13-24 11:40  
 Raw Sample Received by: [Signature]  
 Raw Sample Relinquished by: [Signature]

Date/Time 12-13-24 12:30  
 Raw Sample Received by: [Signature]  
 Raw Sample Relinquished by: [Signature]

FORM 1 - IN  
INORGANIC ANALYSIS DATA SHEET

MJNKG0

Lab Name: Alliance Technical Group, LLC Contract: 68HERH20D0011  
Lab Code: ACE Case No.: 51821 MA No. :                      SDG No.: MJNKG0  
Matrix: SOIL Lab Sample ID: P5249-01  
% Solids: 73.6 Date Received: 12/10/2024  
Analytical Method: ICP\_MS  
Concentration Units ( $\mu\text{g/L}$ ,  $\text{mg/L}$ ,  $\text{mg/kg}$  dry weight,  $\mu\text{g}$ , or  $\mu\text{g/cm}^2$ ): mg/kg

| CAS No.   | Analyte | Concentration | Q | Date Analyzed | Time Analyzed |
|-----------|---------|---------------|---|---------------|---------------|
| 7440-38-2 | Arsenic | 290           |   | 12/21/2024    | 1805          |
| 7440-50-8 | Copper  | 190           |   | 12/21/2024    | 1805          |
| 7439-92-1 | Lead    | 320           |   | 12/21/2024    | 1805          |
| 7440-66-6 | Zinc    | 1500          |   | 12/21/2024    | 1805          |

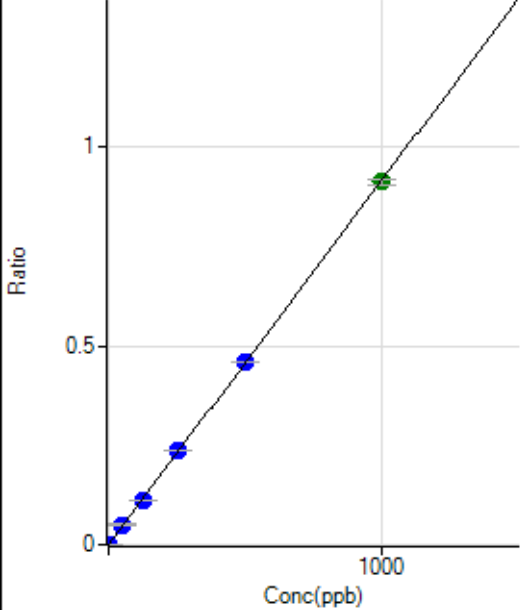
NOTE: Hardness (total) is reported in  $\text{mg/L}$

Comments:

Batch Folder: D:\Agilent\ICPMH\1\DATA\P7122124MS-1.b\  
Analysis File: P7122124MS-1.batch.bin  
DA Date-Time: 2024-12-22 13:10:31  
Calibration Title:  
Calibration Method: External Calibration  
VIS Interpolation Fit:

| Level | Standard Data File | Sample Name | Acq. Date-Time      |
|-------|--------------------|-------------|---------------------|
| 1     | 004CALB.d          | S00         | 2024-12-21 16:08:12 |
| 2     | 006CALS.d          | S02         | 2024-12-21 16:14:49 |
| 3     | 007CALS.d          | S03         | 2024-12-21 16:18:06 |
| 4     | 008CALS.d          | S04         | 2024-12-21 16:21:10 |
| 5     | 009CALS.d          | S05         | 2024-12-21 16:24:01 |
| 6     | 010CALS.d          | S06         | 2024-12-21 16:26:49 |
| 7     | 011CALS.d          | S07         | 2024-12-21 16:29:33 |
| 8     | 012CALS.d          | S08         | 2024-12-21 16:32:20 |

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



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS        | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 37.78      | 0.0000 | P   | 19.1 |
| 2 | <input type="checkbox"/> | 1.000    | 1.187      | 1525.65    | 0.0011 | P   | 1.4  |
| 3 | <input type="checkbox"/> | 50.000   | 55.197     | 70235.42   | 0.0506 | P   | 1.6  |
| 4 | <input type="checkbox"/> | 125.000  | 122.746    | 164262.33  | 0.1125 | P   | 0.5  |
| 5 | <input type="checkbox"/> | 250.000  | 258.829    | 354117.16  | 0.2371 | P   | 0.4  |
| 6 | <input type="checkbox"/> | 500.000  | 501.835    | 686397.73  | 0.4598 | P   | 0.9  |
| 7 | <input type="checkbox"/> | 1000.000 | 996.897    | 1359107.19 | 0.9133 | A   | 1.6  |
| 8 | <input type="checkbox"/> |          |            | 421.12     | 0.0003 | P   | 13.1 |

y = 9.1613E-004 \* x + 2.8155E-005

R = 0.9999

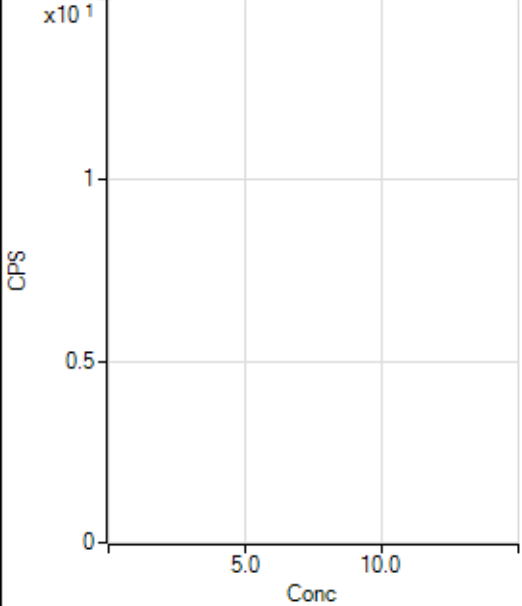
DL = 0.01762

BEC = 0.03073

Weight: <None>

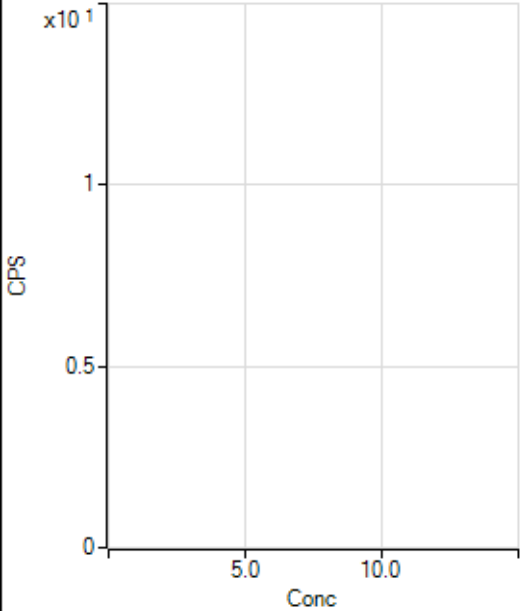
Min Conc: 0

12 C [No Gas] No available calibration points



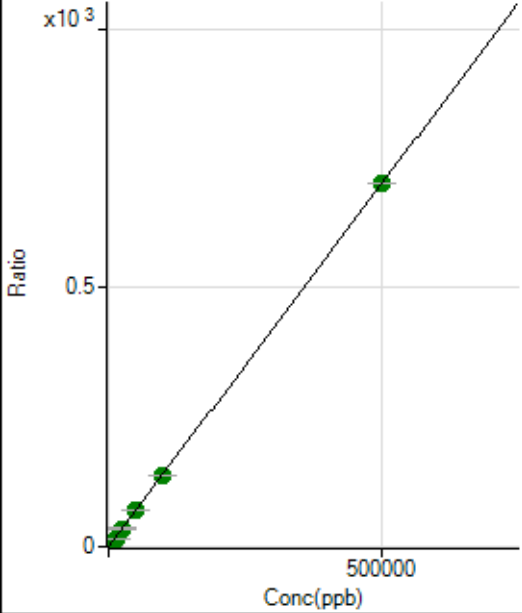
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS | Ratio | Det | RSD |
|---|--------------------------|-------|------------|-----|-------|-----|-----|
| 1 | <input type="checkbox"/> |       |            |     |       |     |     |
| 2 | <input type="checkbox"/> |       |            |     |       |     |     |
| 3 | <input type="checkbox"/> |       |            |     |       |     |     |
| 4 | <input type="checkbox"/> |       |            |     |       |     |     |
| 5 | <input type="checkbox"/> |       |            |     |       |     |     |
| 6 | <input type="checkbox"/> |       |            |     |       |     |     |
| 7 | <input type="checkbox"/> |       |            |     |       |     |     |
| 8 | <input type="checkbox"/> |       |            |     |       |     |     |

12 C [He] No available calibration points



|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS | Ratio | Det | RSD |
|---|--------------------------|-------|------------|-----|-------|-----|-----|
| 1 | <input type="checkbox"/> |       |            |     |       |     |     |
| 2 | <input type="checkbox"/> |       |            |     |       |     |     |
| 3 | <input type="checkbox"/> |       |            |     |       |     |     |
| 4 | <input type="checkbox"/> |       |            |     |       |     |     |
| 5 | <input type="checkbox"/> |       |            |     |       |     |     |
| 6 | <input type="checkbox"/> |       |            |     |       |     |     |
| 7 | <input type="checkbox"/> |       |            |     |       |     |     |
| 8 | <input type="checkbox"/> |       |            |     |       |     |     |

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



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS          | Ratio    | Det | RSD |
|---|--------------------------|-----------|------------|--------------|----------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 17958.33     | 0.0315   | P   | 1.4 |
| 2 | <input type="checkbox"/> | 500.000   | 512.348    | 427680.69    | 0.7492   | P   | 0.7 |
| 3 | <input type="checkbox"/> | 5000.000  | 4926.201   | 3892177.55   | 6.9321   | A   | 0.7 |
| 4 | <input type="checkbox"/> | 12500.000 | 11408.585  | 8508294.18   | 16.0125  | A   | 0.9 |
| 5 | <input type="checkbox"/> | 25000.000 | 25113.439  | 17694470.99  | 35.2100  | A   | 0.5 |
| 6 | <input type="checkbox"/> | 50000.000 | 49840.112  | 33816750.05  | 69.8468  | A   | 0.4 |
| 7 | <input type="checkbox"/> | 100000.00 | 98836.156  | 66976502.34  | 138.4796 | A   | 0.5 |
| 8 | <input type="checkbox"/> | 500000.00 | 500271.09  | 342385759.34 | 700.8032 | A   | 0.2 |

$y = 0.0014 * x + 0.0315$

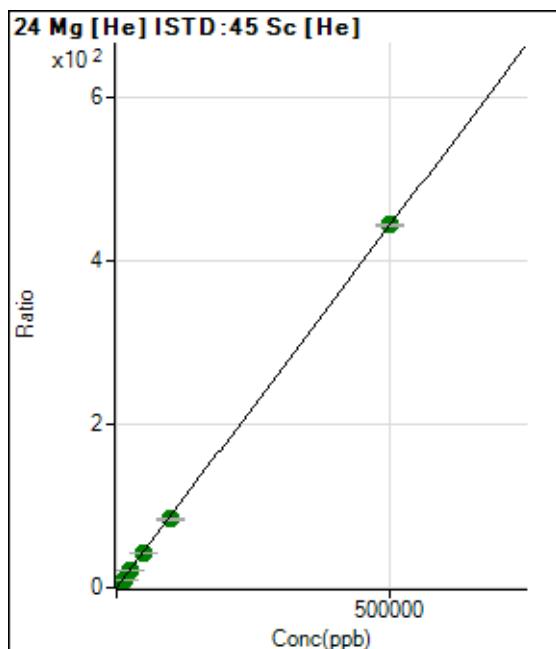
$R = 1.0000$

$DL = 0.924$

$BEC = 22.52$

Weight: <None>

Min Conc: 0



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS          | Ratio    | Det | RSD |
|---|--------------------------|-----------|------------|--------------|----------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 457.79       | 0.0008   | P   | 2.3 |
| 2 | <input type="checkbox"/> | 500.000   | 530.036    | 268340.81    | 0.4701   | P   | 0.7 |
| 3 | <input type="checkbox"/> | 5000.000  | 4758.115   | 2365845.80   | 4.2136   | A   | 0.7 |
| 4 | <input type="checkbox"/> | 12500.000 | 10961.139  | 5156917.32   | 9.7058   | A   | 1.4 |
| 5 | <input type="checkbox"/> | 25000.000 | 24120.994  | 10732792.76  | 21.3575  | A   | 0.7 |
| 6 | <input type="checkbox"/> | 50000.000 | 47793.453  | 20487979.55  | 42.3170  | A   | 0.8 |
| 7 | <input type="checkbox"/> | 100000.00 | 94452.176  | 40447517.17  | 83.6286  | A   | 0.4 |
| 8 | <input type="checkbox"/> | 500000.00 | 501415.03  | 216899263.43 | 443.9526 | A   | 0.6 |

$$y = 8.8540E-004 * x + 8.0429E-004$$

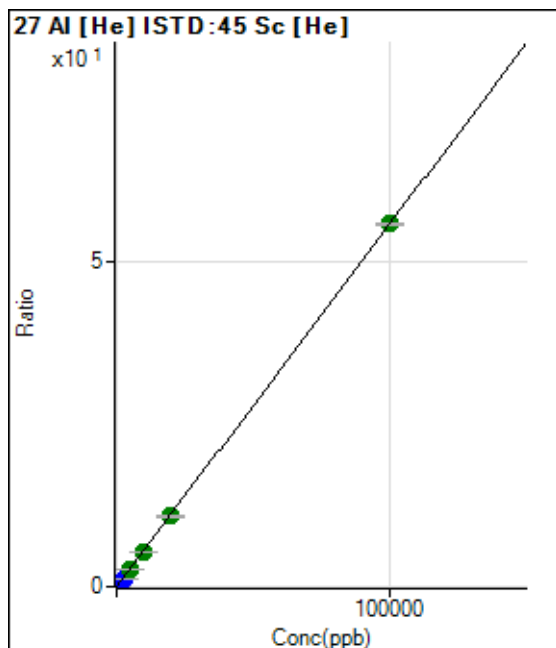
$$R = 0.9999$$

$$DL = 0.06275$$

$$BEC = 0.9084$$

Weight: <None>

Min Conc: 0



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS         | Ratio   | Det | RSD  |
|---|--------------------------|-----------|------------|-------------|---------|-----|------|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 101.11      | 0.0002  | P   | 21.7 |
| 2 | <input type="checkbox"/> | 20.000    | 20.563     | 6624.82     | 0.0116  | P   | 2.0  |
| 3 | <input type="checkbox"/> | 1000.000  | 956.208    | 298491.99   | 0.5316  | P   | 1.0  |
| 4 | <input type="checkbox"/> | 2500.000  | 2218.696   | 655288.44   | 1.2333  | P   | 0.9  |
| 5 | <input type="checkbox"/> | 5000.000  | 4941.843   | 1380321.06  | 2.7468  | A   | 0.9  |
| 6 | <input type="checkbox"/> | 10000.000 | 9769.331   | 2628841.39  | 5.4298  | A   | 0.4  |
| 7 | <input type="checkbox"/> | 20000.000 | 19456.805  | 5230147.07  | 10.8140 | A   | 1.4  |
| 8 | <input type="checkbox"/> | 100000.00 | 100142.08  | 27192062.65 | 55.6575 | A   | 0.2  |

$$y = 5.5578E-004 * x + 1.7757E-004$$

$$R = 1.0000$$

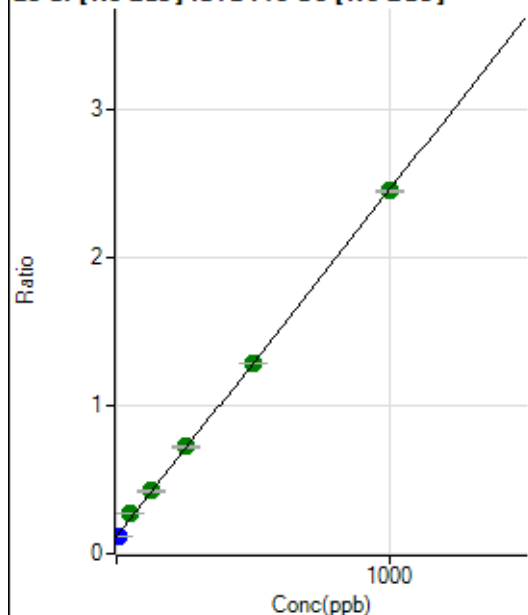
$$DL = 0.208$$

$$BEC = 0.3195$$

Weight: <None>

Min Conc: 0

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



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD |
|---|--------------------------|----------|------------|-------------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 721496.99   | 0.1176 | P   | 0.7 |
| 2 | <input type="checkbox"/> | 10.000   | 1.866      | 753227.50   | 0.1220 | P   | 1.0 |
| 3 | <input type="checkbox"/> | 50.000   | 66.917     | 1657929.40  | 0.2738 | A   | 0.9 |
| 4 | <input type="checkbox"/> | 125.000  | 130.266    | 2486751.27  | 0.4218 | A   | 1.2 |
| 5 | <input type="checkbox"/> | 250.000  | 258.791    | 4099261.08  | 0.7218 | A   | 1.6 |
| 6 | <input type="checkbox"/> | 500.000  | 498.839    | 6951295.80  | 1.2823 | A   | 0.3 |
| 7 | <input type="checkbox"/> | 1000.000 | 996.960    | 13047694.95 | 2.4453 | A   | 0.7 |
| 8 | <input type="checkbox"/> |          |            | 641936.87   | 0.1216 | P   | 0.8 |

$$y = 0.0023 * x + 0.1176$$

$$R = 0.9998$$

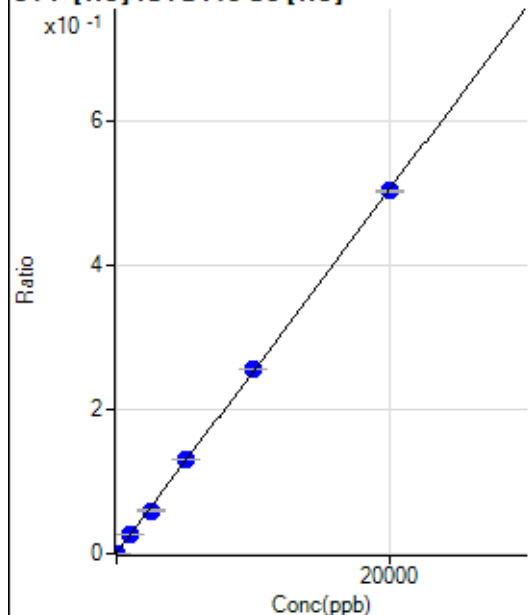
$$DL = 1.016$$

$$BEC = 50.37$$

Weight: <None>

Min Conc: 0

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



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS       | Ratio  | Det | RSD  |
|---|--------------------------|-----------|------------|-----------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000     | -17.802    | 138.89    | 0.0002 | P   | 29.3 |
| 2 | <input type="checkbox"/> | 0.000     | 17.802     | 652.24    | 0.0011 | P   | 5.2  |
| 3 | <input type="checkbox"/> | 1000.000  | 1036.433   | 15077.52  | 0.0269 | P   | 0.9  |
| 4 | <input type="checkbox"/> | 2500.000  | 2343.190   | 31791.90  | 0.0598 | P   | 1.1  |
| 5 | <input type="checkbox"/> | 5000.000  | 5122.046   | 65316.28  | 0.1300 | P   | 0.4  |
| 6 | <input type="checkbox"/> | 10000.000 | 10115.735  | 123948.65 | 0.2560 | P   | 0.2  |
| 7 | <input type="checkbox"/> | 20000.000 | 19929.400  | 243622.50 | 0.5037 | P   | 0.3  |
| 8 | <input type="checkbox"/> |           |            | 231.12    | 0.0005 | P   | 10.9 |

$$y = 2.5240E-005 * x + 6.9353E-004$$

$$R = 0.9999$$

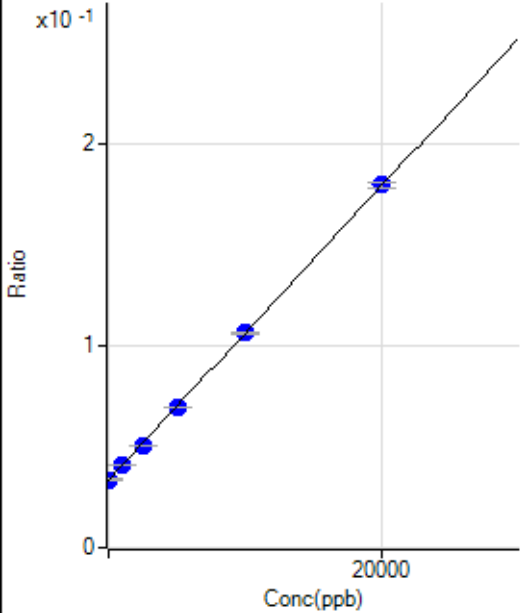
$$DL = 7.791$$

$$BEC = 27.48$$

Weight: <None>

Min Conc: 0

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

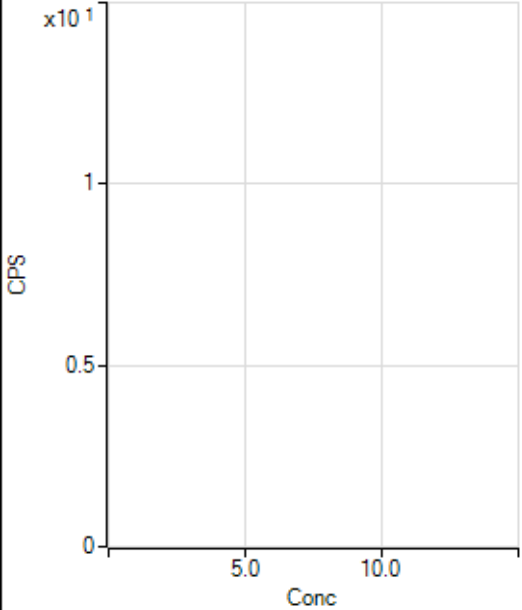


|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS       | Ratio  | Det | RSD |
|---|--------------------------|-----------|------------|-----------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | -29.888    | 203963.03 | 0.0332 | P   | 1.0 |
| 2 | <input type="checkbox"/> | 0.000     | 29.888     | 208004.43 | 0.0337 | P   | 1.6 |
| 3 | <input type="checkbox"/> | 1000.000  | 1042.881   | 248533.11 | 0.0411 | P   | 0.7 |
| 4 | <input type="checkbox"/> | 2500.000  | 2304.976   | 296240.28 | 0.0502 | P   | 1.0 |
| 5 | <input type="checkbox"/> | 5000.000  | 4948.274   | 394601.27 | 0.0695 | P   | 1.1 |
| 6 | <input type="checkbox"/> | 10000.000 | 9971.898   | 574846.18 | 0.1060 | P   | 0.9 |
| 7 | <input type="checkbox"/> | 20000.000 | 20049.216  | 957183.06 | 0.1794 | P   | 1.4 |
| 8 | <input type="checkbox"/> |           |            | 162514.79 | 0.0308 | P   | 2.9 |

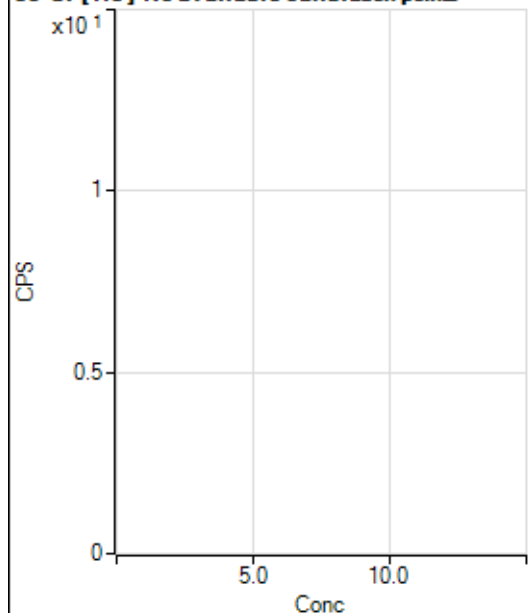
$y = 7.2786E-006 * x + 0.0335$   
R = 0.9999  
DL = 173.8  
BEC = 4597

Weight: <None>  
Min Conc: 0

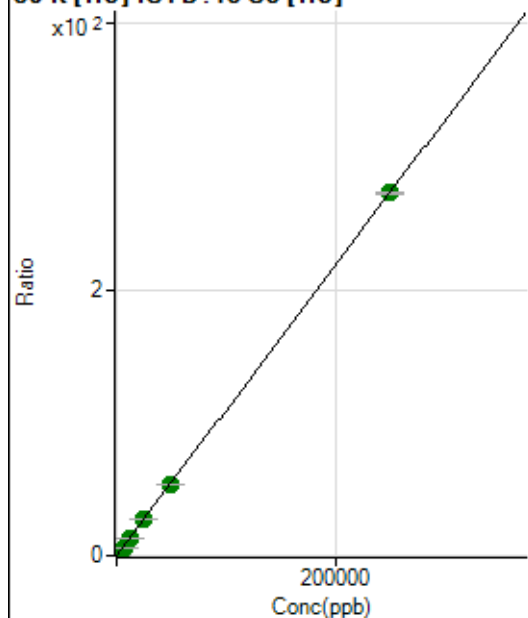
35 Cl [No Gas] No available calibration points



|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS | Ratio | Det | RSD |
|---|--------------------------|-------|------------|-----|-------|-----|-----|
| 1 | <input type="checkbox"/> |       |            |     |       |     |     |
| 2 | <input type="checkbox"/> |       |            |     |       |     |     |
| 3 | <input type="checkbox"/> |       |            |     |       |     |     |
| 4 | <input type="checkbox"/> |       |            |     |       |     |     |
| 5 | <input type="checkbox"/> |       |            |     |       |     |     |
| 6 | <input type="checkbox"/> |       |            |     |       |     |     |
| 7 | <input type="checkbox"/> |       |            |     |       |     |     |
| 8 | <input type="checkbox"/> |       |            |     |       |     |     |

**35 Cl [He] No available calibration points**

|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS | Ratio | Det | RSD |
|---|--------------------------|-------|------------|-----|-------|-----|-----|
| 1 | <input type="checkbox"/> |       |            |     |       |     |     |
| 2 | <input type="checkbox"/> |       |            |     |       |     |     |
| 3 | <input type="checkbox"/> |       |            |     |       |     |     |
| 4 | <input type="checkbox"/> |       |            |     |       |     |     |
| 5 | <input type="checkbox"/> |       |            |     |       |     |     |
| 6 | <input type="checkbox"/> |       |            |     |       |     |     |
| 7 | <input type="checkbox"/> |       |            |     |       |     |     |
| 8 | <input type="checkbox"/> |       |            |     |       |     |     |

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

|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS          | Ratio    | Det | RSD |
|---|--------------------------|-----------|------------|--------------|----------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 61381.92     | 0.1078   | P   | 1.0 |
| 2 | <input type="checkbox"/> | 500.000   | 555.872    | 407012.01    | 0.7130   | P   | 1.0 |
| 3 | <input type="checkbox"/> | 2500.000  | 2518.534   | 1600118.67   | 2.8499   | A   | 1.2 |
| 4 | <input type="checkbox"/> | 6250.000  | 5778.555   | 3400303.63   | 6.3992   | A   | 0.6 |
| 5 | <input type="checkbox"/> | 12500.000 | 12456.669  | 6869685.04   | 13.6700  | A   | 0.4 |
| 6 | <input type="checkbox"/> | 25000.000 | 24703.248  | 13073765.50  | 27.0035  | A   | 0.2 |
| 7 | <input type="checkbox"/> | 50000.000 | 48946.474  | 25826577.12  | 53.3983  | A   | 0.7 |
| 8 | <input type="checkbox"/> | 250000.00 | 250254.03  | 133167129.13 | 272.5717 | A   | 0.6 |

$$y = 0.0011 * x + 0.1078$$

$$R = 1.0000$$

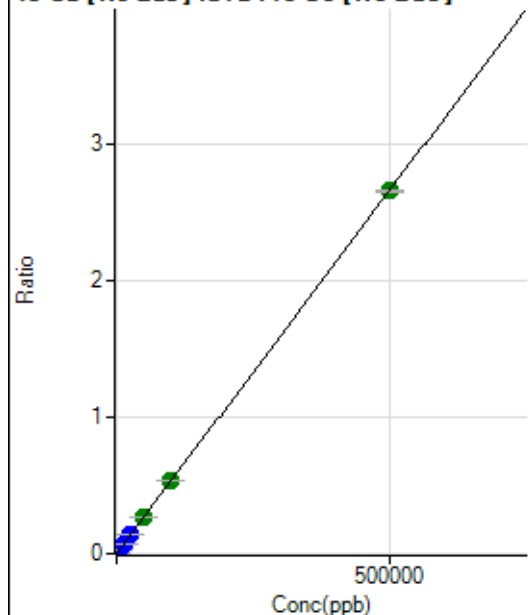
$$DL = 2.881$$

$$BEC = 99.04$$

Weight: &lt;None&gt;

Min Conc: 0

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



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS         | Ratio  | Det | RSD |
|---|--------------------------|-----------|------------|-------------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 358.90      | 0.0001 | P   | 8.0 |
| 2 | <input type="checkbox"/> | 500.000   | 567.123    | 18957.47    | 0.0031 | P   | 1.7 |
| 3 | <input type="checkbox"/> | 5000.000  | 5276.379   | 169946.46   | 0.0281 | P   | 0.5 |
| 4 | <input type="checkbox"/> | 12500.000 | 12128.992  | 380054.67   | 0.0645 | P   | 0.9 |
| 5 | <input type="checkbox"/> | 25000.000 | 26225.868  | 791075.60   | 0.1393 | P   | 1.6 |
| 6 | <input type="checkbox"/> | 50000.000 | 51194.063  | 1473714.04  | 0.2719 | A   | 0.8 |
| 7 | <input type="checkbox"/> | 100000.00 | 100911.48  | 2858954.68  | 0.5358 | A   | 1.6 |
| 8 | <input type="checkbox"/> | 500000.00 | 499643.44  | 13999875.62 | 2.6528 | A   | 0.8 |

$$y = 5.3093E-006 * x + 5.8494E-005$$

R = 1.0000

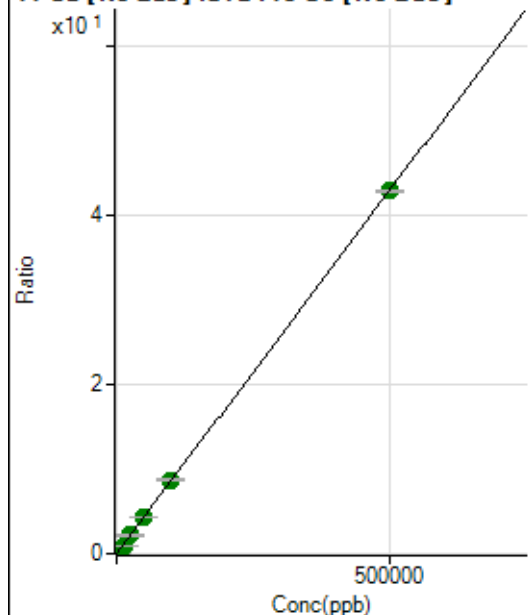
DL = 2.629

BEC = 11.02

Weight: <None>

Min Conc: 0

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



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS          | Ratio   | Det | RSD |
|---|--------------------------|-----------|------------|--------------|---------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 9783.22      | 0.0016  | P   | 0.9 |
| 2 | <input type="checkbox"/> | 500.000   | 562.224    | 307659.10    | 0.0498  | P   | 0.9 |
| 3 | <input type="checkbox"/> | 5000.000  | 5093.064   | 2653970.76   | 0.4384  | A   | 1.5 |
| 4 | <input type="checkbox"/> | 12500.000 | 11651.093  | 5901410.95   | 1.0009  | A   | 1.1 |
| 5 | <input type="checkbox"/> | 25000.000 | 25257.353  | 12311587.32  | 2.1678  | A   | 1.1 |
| 6 | <input type="checkbox"/> | 50000.000 | 50829.571  | 23640520.76  | 4.3610  | A   | 1.0 |
| 7 | <input type="checkbox"/> | 100000.00 | 101554.80  | 46481783.19  | 8.7115  | A   | 1.2 |
| 8 | <input type="checkbox"/> | 500000.00 | 499613.44  | 226142529.97 | 42.8514 | A   | 0.8 |

$$y = 8.5766E-005 * x + 0.0016$$

R = 1.0000

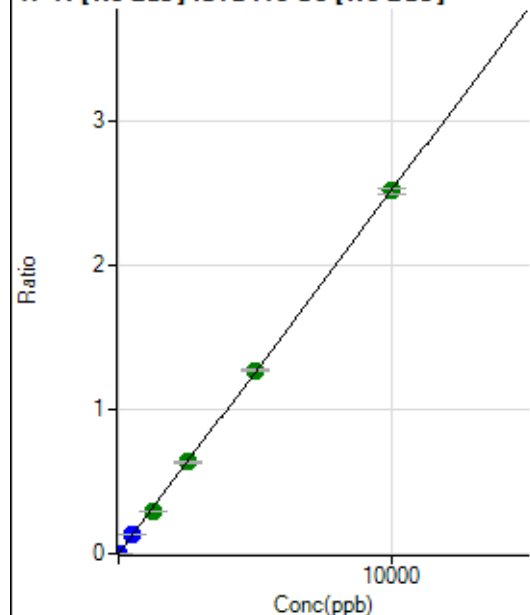
DL = 0.5048

BEC = 18.59

Weight: <None>

Min Conc: 0

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



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS         | Ratio  | Det | RSD  |
|---|--------------------------|-----------|------------|-------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 75.56       | 0.0000 | P   | 35.3 |
| 2 | <input type="checkbox"/> | 5.000     | 5.360      | 8404.63     | 0.0014 | P   | 1.0  |
| 3 | <input type="checkbox"/> | 500.000   | 504.566    | 768489.49   | 0.1269 | P   | 0.3  |
| 4 | <input type="checkbox"/> | 1250.000  | 1157.245   | 1716506.99  | 0.2911 | A   | 1.5  |
| 5 | <input type="checkbox"/> | 2500.000  | 2520.321   | 3599899.81  | 0.6340 | A   | 3.2  |
| 6 | <input type="checkbox"/> | 5000.000  | 5033.396   | 6863668.51  | 1.2662 | A   | 1.0  |
| 7 | <input type="checkbox"/> | 10000.000 | 9989.588   | 13408222.16 | 2.5130 | A   | 1.6  |
| 8 | <input type="checkbox"/> |           |            | 2893.64     | 0.0005 | P   | 13.3 |

$$y = 2.5156E-004 * x + 1.2305E-005$$

$$R = 0.9999$$

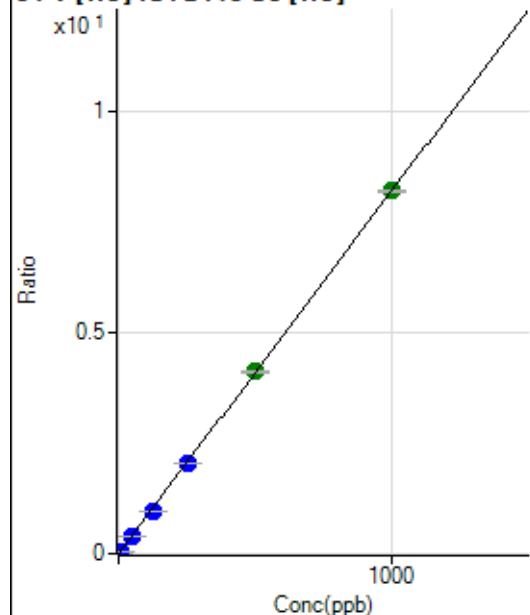
$$DL = 0.05173$$

$$BEC = 0.04892$$

Weight: &lt;None&gt;

Min Conc: 0

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



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS        | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 5.56       | 0.0000 | P   | 91.7 |
| 2 | <input type="checkbox"/> | 5.000    | 5.529      | 25853.27   | 0.0453 | P   | 1.1  |
| 3 | <input type="checkbox"/> | 50.000   | 49.566     | 227929.07  | 0.4059 | P   | 1.5  |
| 4 | <input type="checkbox"/> | 125.000  | 114.933    | 500154.98  | 0.9413 | P   | 0.5  |
| 5 | <input type="checkbox"/> | 250.000  | 249.982    | 1028832.06 | 2.0473 | P   | 0.8  |
| 6 | <input type="checkbox"/> | 500.000  | 501.226    | 1987406.45 | 4.1049 | A   | 0.7  |
| 7 | <input type="checkbox"/> | 1000.000 | 1000.669   | 3963688.31 | 8.1953 | A   | 0.7  |
| 8 | <input type="checkbox"/> |          |            | 880.03     | 0.0018 | P   | 8.6  |

$$y = 0.0082 * x + 9.7353E-006$$

$$R = 0.9999$$

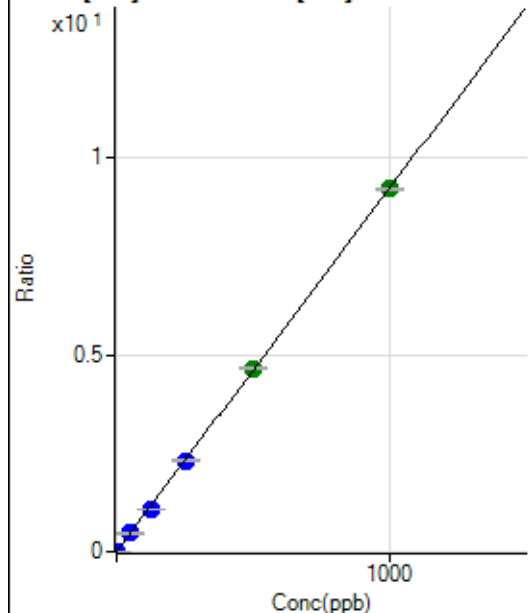
$$DL = 0.003269$$

$$BEC = 0.001189$$

Weight: &lt;None&gt;

Min Conc: 0

52 Cr [He] ISTD:45 Sc [He]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS        | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 1381.19    | 0.0024 | P   | 7.4  |
| 2 | <input type="checkbox"/> | 2.000    | 2.213      | 13029.05   | 0.0228 | P   | 1.7  |
| 3 | <input type="checkbox"/> | 50.000   | 50.049     | 260374.35  | 0.4637 | P   | 0.7  |
| 4 | <input type="checkbox"/> | 125.000  | 115.424    | 566564.89  | 1.0663 | P   | 1.0  |
| 5 | <input type="checkbox"/> | 250.000  | 250.472    | 1161383.98 | 2.3111 | P   | 0.8  |
| 6 | <input type="checkbox"/> | 500.000  | 505.066    | 2255062.17 | 4.6577 | A   | 0.2  |
| 7 | <input type="checkbox"/> | 1000.000 | 998.543    | 4452693.30 | 9.2062 | A   | 0.3  |
| 8 | <input type="checkbox"/> |          |            | 7883.82    | 0.0161 | P   | 11.1 |

$$y = 0.0092 * x + 0.0024$$

$$R = 0.9999$$

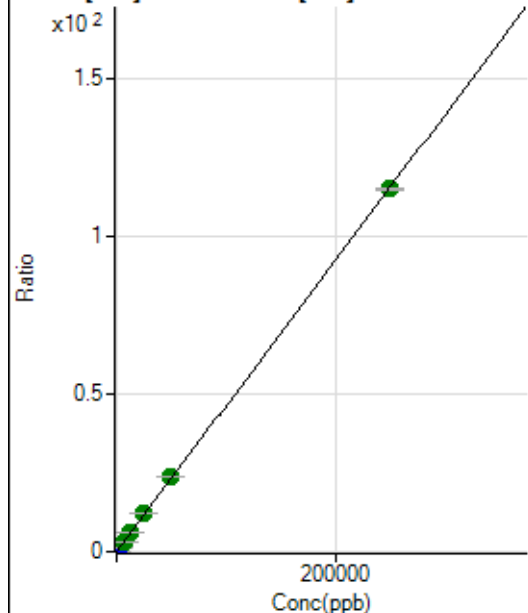
$$DL = 0.05846$$

$$BEC = 0.2632$$

Weight: <None>

Min Conc: 0

54 Fe [He] ISTD:45 Sc [He]



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS         | Ratio    | Det | RSD |
|---|--------------------------|-----------|------------|-------------|----------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 2725.83     | 0.0048   | P   | 7.7 |
| 2 | <input type="checkbox"/> | 50.000    | 59.350     | 18379.08    | 0.0322   | P   | 1.4 |
| 3 | <input type="checkbox"/> | 2500.000  | 2659.768   | 692326.73   | 1.2331   | P   | 0.7 |
| 4 | <input type="checkbox"/> | 6250.000  | 6118.172   | 1503726.97  | 2.8302   | A   | 1.2 |
| 5 | <input type="checkbox"/> | 12500.000 | 13323.827  | 3094384.99  | 6.1577   | A   | 1.1 |
| 6 | <input type="checkbox"/> | 25000.000 | 26309.799  | 5884722.97  | 12.1546  | A   | 0.5 |
| 7 | <input type="checkbox"/> | 50000.000 | 51835.469  | 11579831.08 | 23.9424  | A   | 0.6 |
| 8 | <input type="checkbox"/> | 250000.00 | 249462.43  | 56285021.38 | 115.2063 | A   | 0.4 |

$$y = 4.6180E-004 * x + 0.0048$$

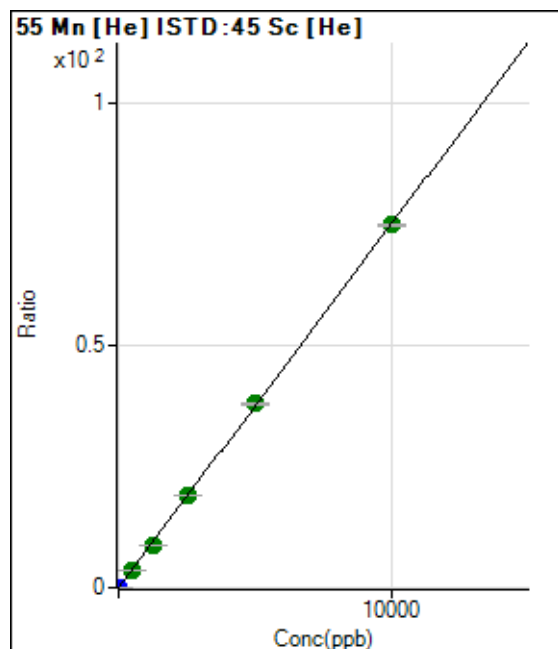
$$R = 1.0000$$

$$DL = 2.386$$

$$BEC = 10.37$$

Weight: <None>

Min Conc: 0



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS         | Ratio   | Det | RSD |
|---|--------------------------|-----------|------------|-------------|---------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 342.23      | 0.0006  | P   | 8.6 |
| 2 | <input type="checkbox"/> | 1.000     | 1.101      | 5060.90     | 0.0089  | P   | 3.4 |
| 3 | <input type="checkbox"/> | 500.000   | 498.546    | 2101058.37  | 3.7420  | A   | 0.5 |
| 4 | <input type="checkbox"/> | 1250.000  | 1158.889   | 4621158.72  | 8.6977  | A   | 2.1 |
| 5 | <input type="checkbox"/> | 2500.000  | 2541.526   | 9585282.63  | 19.0739 | A   | 0.8 |
| 6 | <input type="checkbox"/> | 5000.000  | 5059.595   | 18383564.86 | 37.9712 | A   | 1.2 |
| 7 | <input type="checkbox"/> | 10000.000 | 9971.282   | 36193097.51 | 74.8318 | A   | 0.4 |
| 8 | <input type="checkbox"/> |           |            | 17346.81    | 0.0355  | P   | 3.9 |

$$y = 0.0075 * x + 6.0138E-004$$

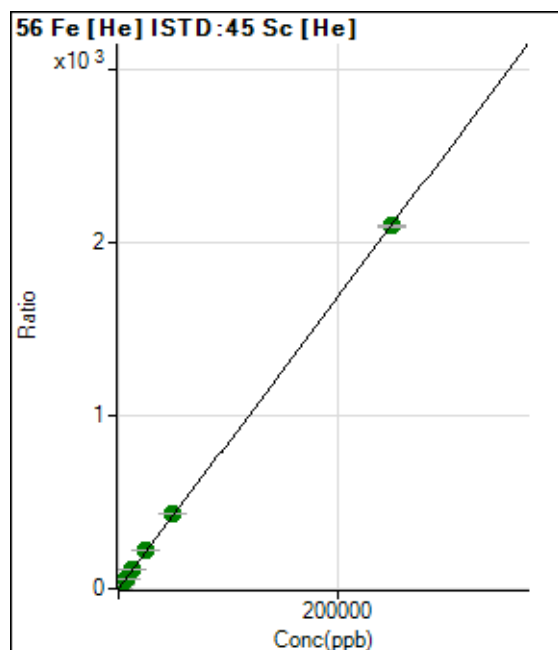
$$R = 0.9999$$

$$DL = 0.02066$$

$$BEC = 0.08013$$

Weight: <None>

Min Conc: 0



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS          | Ratio     | Det | RSD |
|---|--------------------------|-----------|------------|--------------|-----------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 19405.92     | 0.0341    | P   | 0.7 |
| 2 | <input type="checkbox"/> | 50.000    | 57.344     | 294758.73    | 0.5164    | P   | 0.4 |
| 3 | <input type="checkbox"/> | 2500.000  | 2609.173   | 12340072.18  | 21.9779   | A   | 0.4 |
| 4 | <input type="checkbox"/> | 6250.000  | 6027.501   | 26953377.93  | 50.7270   | A   | 0.7 |
| 5 | <input type="checkbox"/> | 12500.000 | 13175.683  | 55703739.72  | 110.8451  | A   | 0.5 |
| 6 | <input type="checkbox"/> | 25000.000 | 26216.723  | 106765960.63 | 220.5237  | A   | 0.6 |
| 7 | <input type="checkbox"/> | 50000.000 | 51547.995  | 209700559.10 | 433.5665  | A   | 0.5 |
| 8 | <input type="checkbox"/> | 250000.00 | 249539.41  | 1025351335.8 | 2,098.727 | A   | 0.5 |

$$y = 0.0084 * x + 0.0341$$

$$R = 1.0000$$

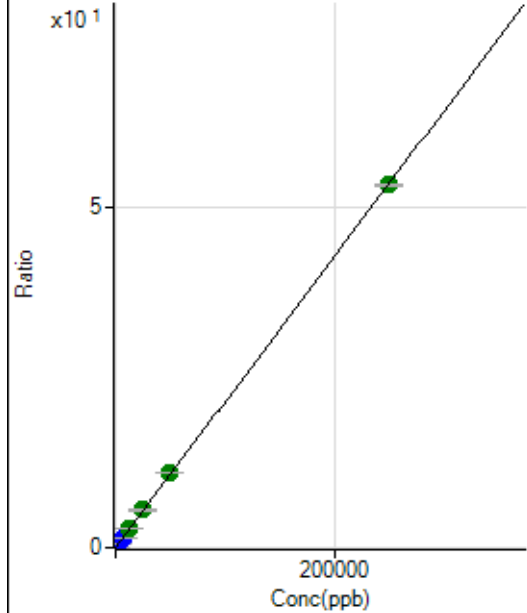
$$DL = 0.07959$$

$$BEC = 4.054$$

Weight: <None>

Min Conc: 0

57 Fe [He] ISTD:45 Sc [He]



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS         | Ratio   | Det | RSD |
|---|--------------------------|-----------|------------|-------------|---------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 1175.61     | 0.0021  | P   | 5.5 |
| 2 | <input type="checkbox"/> | 50.000    | 59.526     | 8446.89     | 0.0148  | P   | 2.8 |
| 3 | <input type="checkbox"/> | 2500.000  | 2598.896   | 313301.91   | 0.5580  | P   | 0.2 |
| 4 | <input type="checkbox"/> | 6250.000  | 6030.589   | 686520.30   | 1.2921  | P   | 1.1 |
| 5 | <input type="checkbox"/> | 12500.000 | 13008.769  | 1399442.46  | 2.7848  | A   | 0.6 |
| 6 | <input type="checkbox"/> | 25000.000 | 25845.796  | 2677735.50  | 5.5308  | A   | 0.8 |
| 7 | <input type="checkbox"/> | 50000.000 | 51383.258  | 5317212.66  | 10.9936 | A   | 0.9 |
| 8 | <input type="checkbox"/> | 250000.00 | 249617.82  | 26088245.17 | 53.3983 | A   | 0.2 |

$$y = 2.1391E-004 * x + 0.0021$$

$$R = 1.0000$$

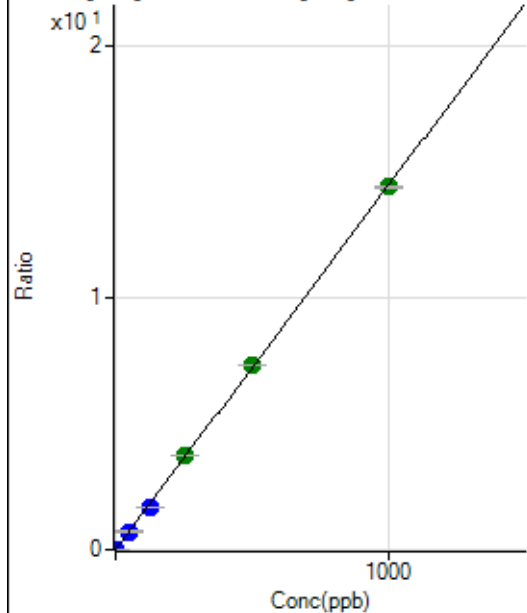
$$DL = 1.579$$

$$BEC = 9.654$$

Weight: <None>

Min Conc: 0

59 Co [He] ISTD:45 Sc [He]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS        | Ratio   | Det | RSD |
|---|--------------------------|----------|------------|------------|---------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 158.89     | 0.0003  | P   | 4.2 |
| 2 | <input type="checkbox"/> | 1.000    | 1.167      | 9779.92    | 0.0171  | P   | 0.7 |
| 3 | <input type="checkbox"/> | 50.000   | 50.108     | 406302.32  | 0.7236  | P   | 0.7 |
| 4 | <input type="checkbox"/> | 125.000  | 115.140    | 883326.09  | 1.6625  | P   | 0.8 |
| 5 | <input type="checkbox"/> | 250.000  | 257.050    | 1864949.82 | 3.7111  | A   | 0.4 |
| 6 | <input type="checkbox"/> | 500.000  | 507.142    | 3544682.69 | 7.3214  | A   | 0.4 |
| 7 | <input type="checkbox"/> | 1000.000 | 995.893    | 6953663.65 | 14.3771 | A   | 0.4 |
| 8 | <input type="checkbox"/> |          |            | 18887.54   | 0.0387  | P   | 0.9 |

$$y = 0.0144 * x + 2.7913E-004$$

$$R = 0.9999$$

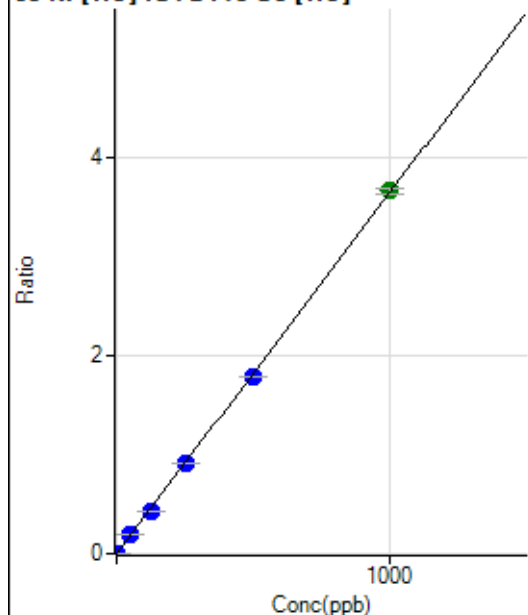
$$DL = 0.002441$$

$$BEC = 0.01934$$

Weight: <None>

Min Conc: 0

60 Ni [He] ISTD:45 Sc [He]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS        | Ratio  | Det | RSD |
|---|--------------------------|----------|------------|------------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 345.56     | 0.0006 | P   | 9.1 |
| 2 | <input type="checkbox"/> | 1.000    | 1.144      | 2722.50    | 0.0048 | P   | 5.5 |
| 3 | <input type="checkbox"/> | 50.000   | 50.774     | 104079.96  | 0.1854 | P   | 0.1 |
| 4 | <input type="checkbox"/> | 125.000  | 116.460    | 225490.98  | 0.4244 | P   | 0.9 |
| 5 | <input type="checkbox"/> | 250.000  | 251.571    | 460338.63  | 0.9160 | P   | 0.6 |
| 6 | <input type="checkbox"/> | 500.000  | 489.273    | 862273.21  | 1.7810 | P   | 0.4 |
| 7 | <input type="checkbox"/> | 1000.000 | 1005.999   | 1770823.01 | 3.6613 | A   | 1.6 |
| 8 | <input type="checkbox"/> |          |            | 6336.95    | 0.0130 | P   | 1.4 |

$$y = 0.0036 * x + 6.0722E-004$$

R = 0.9999

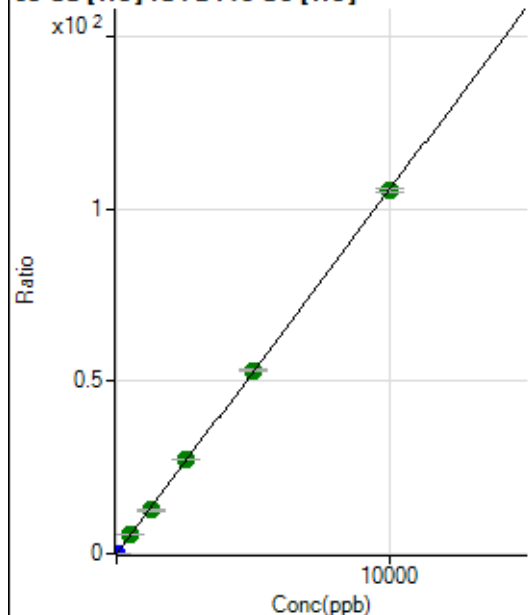
DL = 0.0457

BEC = 0.1669

Weight: <None>

Min Conc: 0

63 Cu [He] ISTD:45 Sc [He]



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS         | Ratio    | Det | RSD |
|---|--------------------------|-----------|------------|-------------|----------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 624.46      | 0.0011   | P   | 9.7 |
| 2 | <input type="checkbox"/> | 2.000     | 2.082      | 13161.41    | 0.0231   | P   | 0.9 |
| 3 | <input type="checkbox"/> | 500.000   | 515.702    | 3055234.47  | 5.4415   | A   | 1.6 |
| 4 | <input type="checkbox"/> | 1250.000  | 1195.184   | 6699644.14  | 12.6097  | A   | 1.7 |
| 5 | <input type="checkbox"/> | 2500.000  | 2569.339   | 13621914.52 | 27.1064  | A   | 0.4 |
| 6 | <input type="checkbox"/> | 5000.000  | 5042.049   | 25753345.73 | 53.1923  | A   | 0.7 |
| 7 | <input type="checkbox"/> | 10000.000 | 9967.707   | 50860213.69 | 105.1555 | A   | 1.1 |
| 8 | <input type="checkbox"/> |           |            | 10011.21    | 0.0205   | P   | 8.9 |

$$y = 0.0105 * x + 0.0011$$

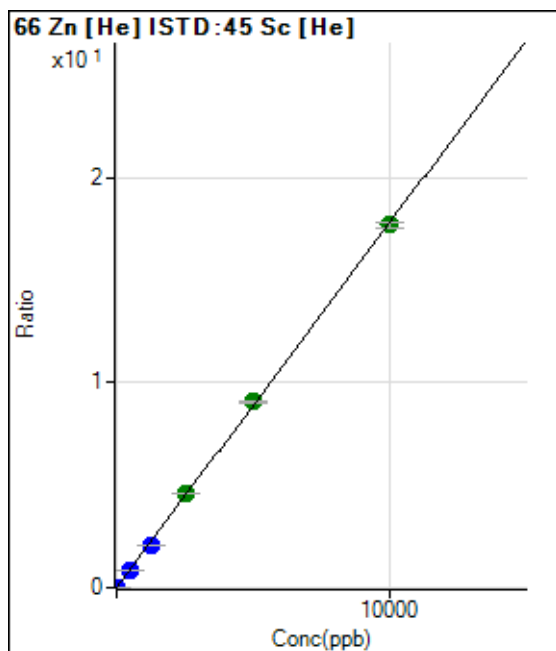
R = 0.9999

DL = 0.0303

BEC = 0.104

Weight: <None>

Min Conc: 0



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS        | Ratio   | Det | RSD |
|---|--------------------------|-----------|------------|------------|---------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 287.79     | 0.0005  | P   | 8.1 |
| 2 | <input type="checkbox"/> | 5.000     | 5.450      | 5827.85    | 0.0102  | P   | 3.7 |
| 3 | <input type="checkbox"/> | 500.000   | 494.517    | 494695.70  | 0.8811  | P   | 1.0 |
| 4 | <input type="checkbox"/> | 1250.000  | 1144.041   | 1082666.82 | 2.0376  | P   | 0.9 |
| 5 | <input type="checkbox"/> | 2500.000  | 2584.003   | 2312475.64 | 4.6017  | A   | 1.4 |
| 6 | <input type="checkbox"/> | 5000.000  | 5091.500   | 4389726.67 | 9.0667  | A   | 1.0 |
| 7 | <input type="checkbox"/> | 10000.000 | 9946.768   | 8566530.98 | 17.7122 | A   | 1.3 |
| 8 | <input type="checkbox"/> |           |            | 6831.62    | 0.0140  | P   | 1.2 |

$$y = 0.0018 * x + 5.0558E-004$$

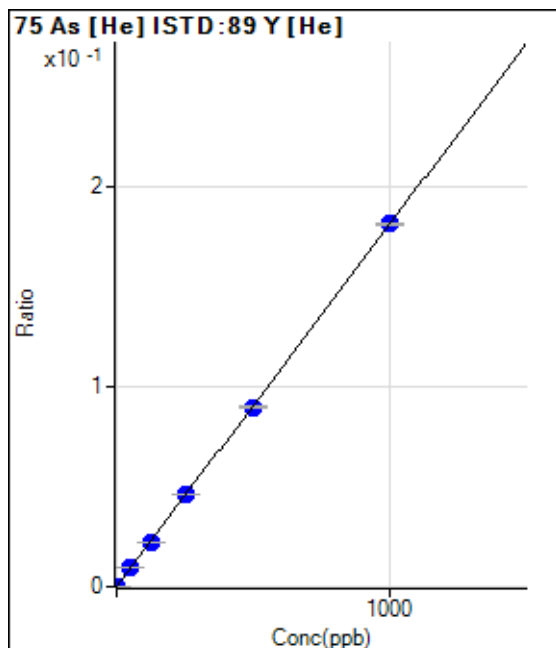
R = 0.9998

DL = 0.06926

BEC = 0.2839

Weight: <None>

Min Conc: 0



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS       | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|-----------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 7.78      | 0.0000 | P   | 66.3 |
| 2 | <input type="checkbox"/> | 1.000    | 1.235      | 832.25    | 0.0002 | P   | 1.4  |
| 3 | <input type="checkbox"/> | 50.000   | 52.066     | 34051.25  | 0.0094 | P   | 1.5  |
| 4 | <input type="checkbox"/> | 125.000  | 119.868    | 74728.92  | 0.0217 | P   | 0.6  |
| 5 | <input type="checkbox"/> | 250.000  | 253.261    | 153405.22 | 0.0459 | P   | 0.8  |
| 6 | <input type="checkbox"/> | 500.000  | 495.971    | 293190.88 | 0.0899 | P   | 1.4  |
| 7 | <input type="checkbox"/> | 1000.000 | 1001.737   | 584156.22 | 0.1816 | P   | 0.9  |
| 8 | <input type="checkbox"/> |          |            | 367.79    | 0.0001 | P   | 5.7  |

$$y = 1.8127E-004 * x + 2.1227E-006$$

R = 1.0000

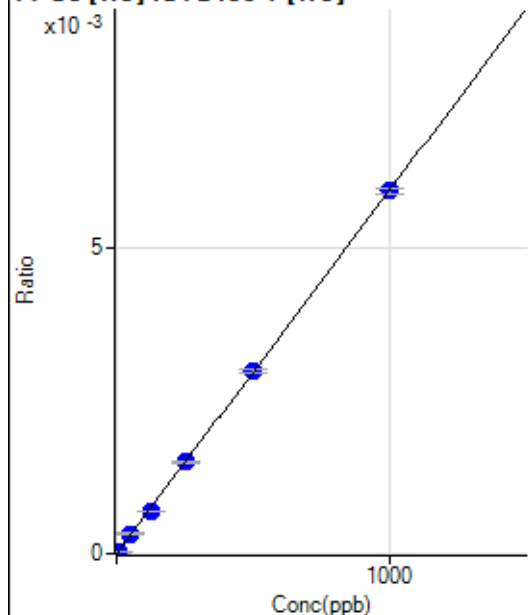
DL = 0.02328

BEC = 0.01171

Weight: <None>

Min Conc: 0

77 Se [He] ISTD:89 Y [He]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS      | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|----------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 1.11     | 0.0000 | P   | 173. |
| 2 | <input type="checkbox"/> | 5.000    | 5.792      | 127.78   | 0.0000 | P   | 7.7  |
| 3 | <input type="checkbox"/> | 50.000   | 54.258     | 1162.28  | 0.0003 | P   | 5.5  |
| 4 | <input type="checkbox"/> | 125.000  | 117.649    | 2402.44  | 0.0007 | P   | 1.9  |
| 5 | <input type="checkbox"/> | 250.000  | 252.941    | 5016.45  | 0.0015 | P   | 1.7  |
| 6 | <input type="checkbox"/> | 500.000  | 502.940    | 9734.37  | 0.0030 | P   | 1.8  |
| 7 | <input type="checkbox"/> | 1000.000 | 998.497    | 19063.46 | 0.0059 | P   | 1.9  |
| 8 | <input type="checkbox"/> |          |            | 6.67     | 0.0000 | P   | 49.2 |

$$y = 5.9347\text{E-}006 * x + 3.0497\text{E-}007$$

$$R = 0.9999$$

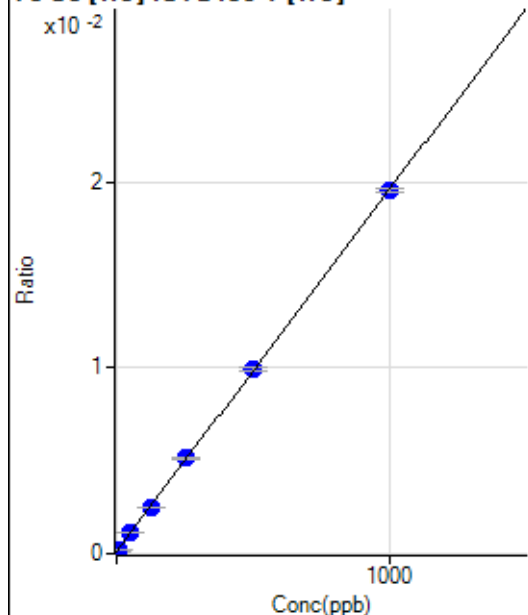
$$DL = 0.267$$

$$BEC = 0.05139$$

Weight: <None>

Min Conc: 0

78 Se [He] ISTD:89 Y [He]



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS      | Ratio  | Det | RSD |
|---|--------------------------|----------|------------|----------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 434.45   | 0.0001 | P   | 8.4 |
| 2 | <input type="checkbox"/> | 5.000    | 6.578      | 907.82   | 0.0002 | P   | 5.5 |
| 3 | <input type="checkbox"/> | 50.000   | 53.696     | 4200.64  | 0.0012 | P   | 0.9 |
| 4 | <input type="checkbox"/> | 125.000  | 121.266    | 8532.52  | 0.0025 | P   | 1.8 |
| 5 | <input type="checkbox"/> | 250.000  | 258.079    | 17198.95 | 0.0051 | P   | 1.2 |
| 6 | <input type="checkbox"/> | 500.000  | 504.247    | 32427.72 | 0.0099 | P   | 2.6 |
| 7 | <input type="checkbox"/> | 1000.000 | 996.131    | 62827.97 | 0.0195 | P   | 1.0 |
| 8 | <input type="checkbox"/> |          |            | 408.90   | 0.0001 | P   | 8.0 |

$$y = 1.9487\text{E-}005 * x + 1.1828\text{E-}004$$

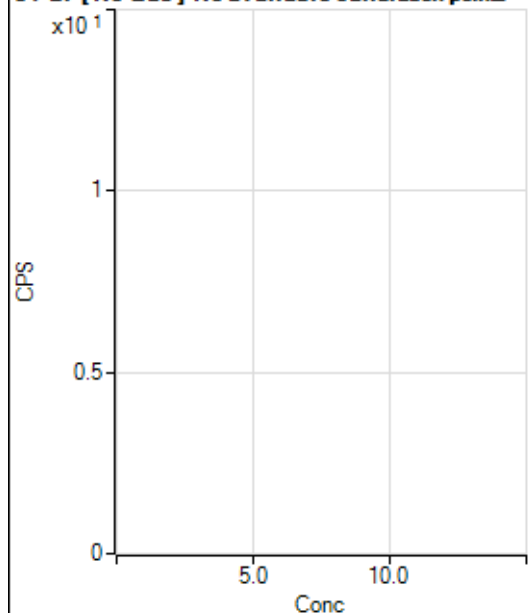
$$R = 0.9999$$

$$DL = 1.53$$

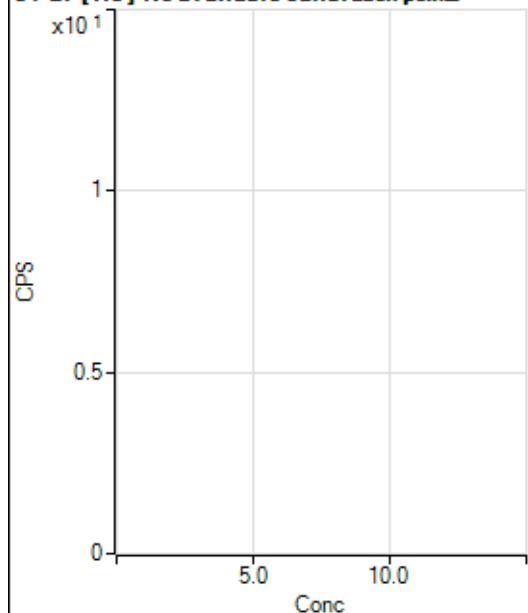
$$BEC = 6.069$$

Weight: <None>

Min Conc: 0

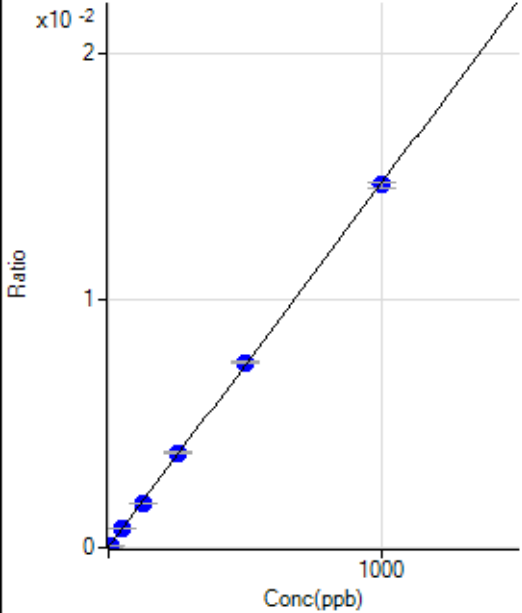
**81 Br [ No Gas ] No available calibration points**

|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS      | Ratio | Det<br>. | RSD |
|---|--------------------------|-------|------------|----------|-------|----------|-----|
| 1 | <input type="checkbox"/> |       |            | 16897.54 |       | P        | 2.1 |
| 2 | <input type="checkbox"/> |       |            | 16458.18 |       | P        | 1.2 |
| 3 | <input type="checkbox"/> |       |            | 16304.66 |       | P        | 1.5 |
| 4 | <input type="checkbox"/> |       |            | 14985.49 |       | P        | 2.2 |
| 5 | <input type="checkbox"/> |       |            | 13671.98 |       | P        | 1.3 |
| 6 | <input type="checkbox"/> |       |            | 13157.08 |       | P        | 1.6 |
| 7 | <input type="checkbox"/> |       |            | 12221.82 |       | P        | 2.2 |
| 8 | <input type="checkbox"/> |       |            | 12683.32 |       | P        | 0.5 |

**81 Br [ He ] No available calibration points**

|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS    | Ratio | Det<br>. | RSD  |
|---|--------------------------|-------|------------|--------|-------|----------|------|
| 1 | <input type="checkbox"/> |       |            | 308.89 |       | P        | 6.3  |
| 2 | <input type="checkbox"/> |       |            | 232.23 |       | P        | 5.0  |
| 3 | <input type="checkbox"/> |       |            | 153.34 |       | P        | 4.3  |
| 4 | <input type="checkbox"/> |       |            | 131.11 |       | P        | 18.4 |
| 5 | <input type="checkbox"/> |       |            | 148.89 |       | P        | 10.3 |
| 6 | <input type="checkbox"/> |       |            | 125.56 |       | P        | 6.1  |
| 7 | <input type="checkbox"/> |       |            | 106.67 |       | P        | 14.3 |
| 8 | <input type="checkbox"/> |       |            | 136.67 |       | P        | 14.6 |

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



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS       | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|-----------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 331.04    | 0.0000 | P   | 7.7  |
| 2 | <input type="checkbox"/> | 5.000    | 5.740      | 1429.40   | 0.0001 | P   | 6.1  |
| 3 | <input type="checkbox"/> | 50.000   | 52.653     | 10356.66  | 0.0008 | P   | 3.5  |
| 4 | <input type="checkbox"/> | 125.000  | 119.119    | 22489.73  | 0.0018 | P   | 1.6  |
| 5 | <input type="checkbox"/> | 250.000  | 258.017    | 46346.34  | 0.0038 | P   | 1.4  |
| 6 | <input type="checkbox"/> | 500.000  | 507.543    | 88297.73  | 0.0075 | P   | 1.4  |
| 7 | <input type="checkbox"/> | 1000.000 | 994.823    | 170791.32 | 0.0147 | P   | 1.7  |
| 8 | <input type="checkbox"/> |          |            | 453.31    | 0.0000 | P   | 11.0 |

y = 1.4720E-005 \* x + 2.5323E-005

R = 0.9999

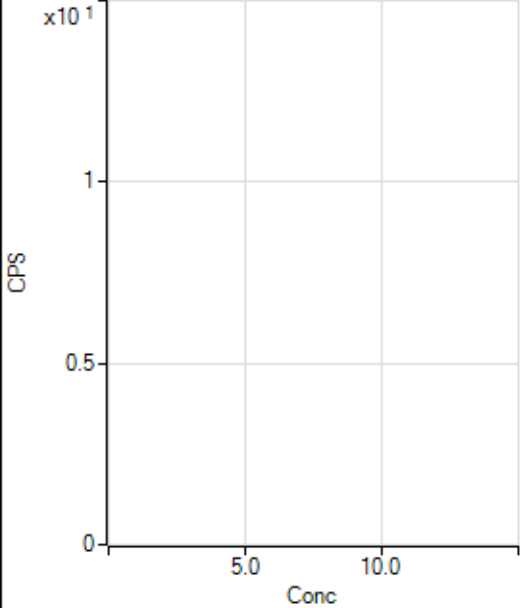
DL = 0.3984

BEC = 1.72

Weight: <None>

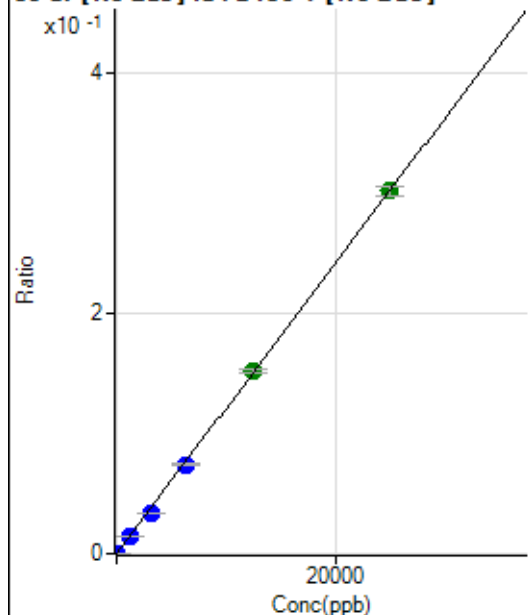
Min Conc: 0

83 Kr [No Gas] No available calibration points



|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS    | Ratio | Det | RSD  |
|---|--------------------------|-------|------------|--------|-------|-----|------|
| 1 | <input type="checkbox"/> |       |            | 220.00 |       | P   | 14.9 |
| 2 | <input type="checkbox"/> |       |            | 237.78 |       | P   | 21.1 |
| 3 | <input type="checkbox"/> |       |            | 205.56 |       | P   | 7.7  |
| 4 | <input type="checkbox"/> |       |            | 214.45 |       | P   | 0.9  |
| 5 | <input type="checkbox"/> |       |            | 171.12 |       | P   | 9.8  |
| 6 | <input type="checkbox"/> |       |            | 184.45 |       | P   | 16.3 |
| 7 | <input type="checkbox"/> |       |            | 220.01 |       | P   | 6.6  |
| 8 | <input type="checkbox"/> |       |            | 205.56 |       | P   | 13.1 |

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



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS        | Ratio  | Det | RSD  |
|---|--------------------------|-----------|------------|------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 386.68     | 0.0000 | P   | 16.3 |
| 2 | <input type="checkbox"/> | 1.000     | 27.347     | 4683.01    | 0.0004 | P   | 2.5  |
| 3 | <input type="checkbox"/> | 1250.000  | 1219.212   | 190871.38  | 0.0147 | P   | 2.3  |
| 4 | <input type="checkbox"/> | 3125.000  | 2811.557   | 429517.28  | 0.0340 | P   | 1.6  |
| 5 | <input type="checkbox"/> | 6250.000  | 6133.151   | 897931.14  | 0.0741 | P   | 1.1  |
| 6 | <input type="checkbox"/> | 12500.000 | 12599.676  | 1791770.58 | 0.1521 | A   | 2.4  |
| 7 | <input type="checkbox"/> | 25000.000 | 25020.093  | 3516940.19 | 0.3021 | A   | 2.5  |
| 8 | <input type="checkbox"/> |           |            | 10313.69   | 0.0009 | P   | 3.3  |

$$y = 1.2073\text{E-}005 * x + 2.9599\text{E-}005$$

R = 0.9999

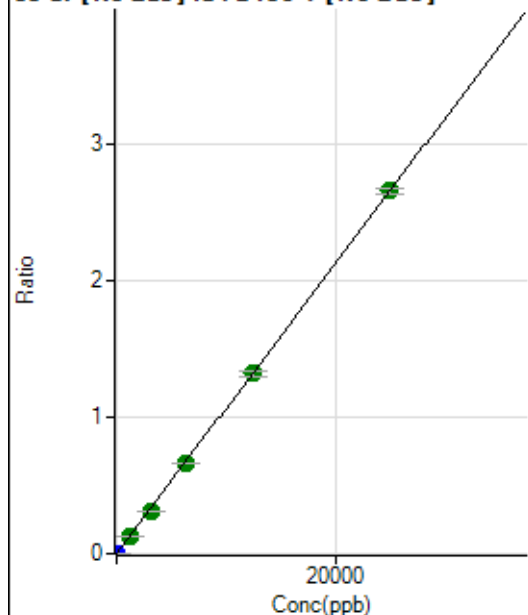
DL = 1.198

BEC = 2.452

Weight: <None>

Min Conc: 0

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



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS         | Ratio  | Det | RSD  |
|---|--------------------------|-----------|------------|-------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 202.23      | 0.0000 | P   | 12.7 |
| 2 | <input type="checkbox"/> | 1.000     | 26.684     | 37117.97    | 0.0029 | P   | 0.7  |
| 3 | <input type="checkbox"/> | 1250.000  | 1257.613   | 1730556.42  | 0.1337 | A   | 0.4  |
| 4 | <input type="checkbox"/> | 3125.000  | 2900.022   | 3897509.00  | 0.3083 | A   | 1.2  |
| 5 | <input type="checkbox"/> | 6250.000  | 6239.927   | 8039536.13  | 0.6632 | A   | 1.5  |
| 6 | <input type="checkbox"/> | 12500.000 | 12469.491  | 15607359.21 | 1.3254 | A   | 3.1  |
| 7 | <input type="checkbox"/> | 25000.000 | 25045.513  | 30993075.65 | 2.6621 | A   | 1.9  |
| 8 | <input type="checkbox"/> |           |            | 89760.51    | 0.0080 | P   | 1.5  |

$$y = 1.0629\text{E-}004 * x + 1.5474\text{E-}005$$

R = 1.0000

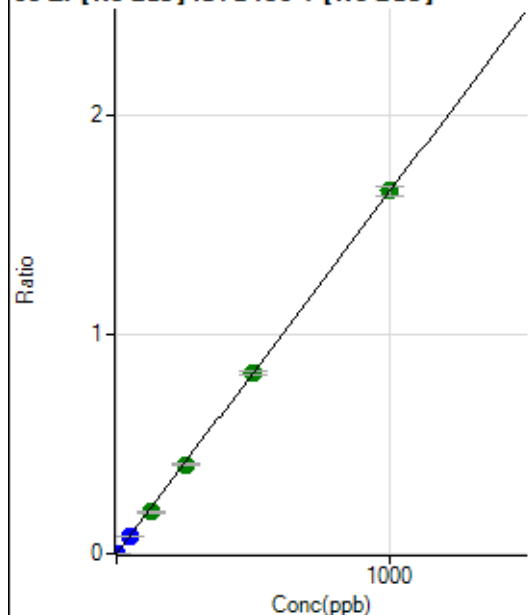
DL = 0.05548

BEC = 0.1456

Weight: <None>

Min Conc: 0

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



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|-------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 626.69      | 0.0000 | P   | 13.8 |
| 2 | <input type="checkbox"/> | 1.000    | 1.046      | 23051.46    | 0.0018 | P   | 0.8  |
| 3 | <input type="checkbox"/> | 50.000   | 48.605     | 1036947.75  | 0.0801 | P   | 2.0  |
| 4 | <input type="checkbox"/> | 125.000  | 114.733    | 2390534.43  | 0.1891 | A   | 1.1  |
| 5 | <input type="checkbox"/> | 250.000  | 246.592    | 4925343.57  | 0.4063 | A   | 0.9  |
| 6 | <input type="checkbox"/> | 500.000  | 499.109    | 9683961.18  | 0.8223 | A   | 2.7  |
| 7 | <input type="checkbox"/> | 1000.000 | 1002.651   | 19231206.66 | 1.6519 | A   | 2.4  |
| 8 | <input type="checkbox"/> |          |            | 13175.99    | 0.0012 | P   | 3.3  |

$y = 0.0016 * x + 4.7927E-005$

$R = 0.9999$

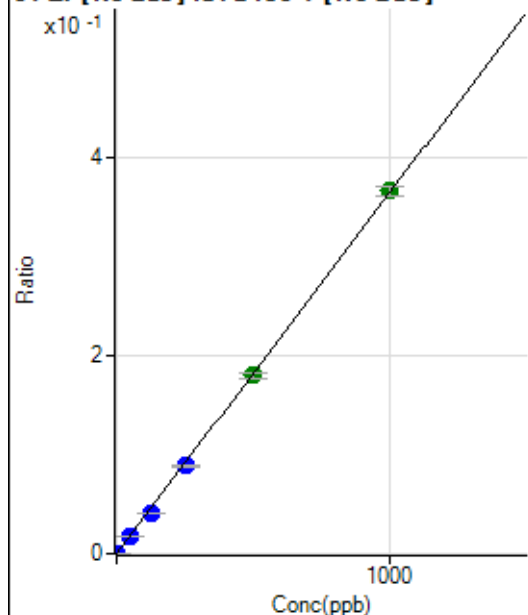
$DL = 0.01208$

$BEC = 0.02909$

Weight: <None>

Min Conc: 0

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



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS        | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 126.67     | 0.0000 | P   | 16.2 |
| 2 | <input type="checkbox"/> | 1.000    | 1.042      | 5063.14    | 0.0004 | P   | 3.0  |
| 3 | <input type="checkbox"/> | 50.000   | 48.932     | 230636.83  | 0.0178 | P   | 1.8  |
| 4 | <input type="checkbox"/> | 125.000  | 112.268    | 516789.44  | 0.0409 | P   | 1.4  |
| 5 | <input type="checkbox"/> | 250.000  | 244.821    | 1080243.52 | 0.0891 | P   | 2.0  |
| 6 | <input type="checkbox"/> | 500.000  | 493.729    | 2116486.37 | 0.1797 | A   | 3.4  |
| 7 | <input type="checkbox"/> | 1000.000 | 1006.075   | 4263341.64 | 0.3662 | A   | 2.7  |
| 8 | <input type="checkbox"/> |          |            | 2983.66    | 0.0003 | P   | 4.3  |

$y = 3.6399E-004 * x + 9.6875E-006$

$R = 0.9999$

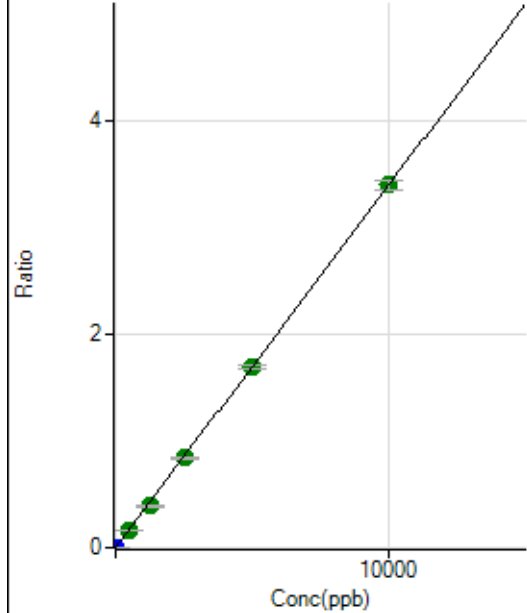
$DL = 0.01293$

$BEC = 0.02661$

Weight: <None>

Min Conc: 0

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



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS         | Ratio  | Det | RSD  |
|---|--------------------------|-----------|------------|-------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 284.45      | 0.0000 | P   | 11.4 |
| 2 | <input type="checkbox"/> | 5.000     | 6.140      | 27443.55    | 0.0021 | P   | 1.1  |
| 3 | <input type="checkbox"/> | 500.000   | 499.831    | 2198788.34  | 0.1699 | A   | 1.0  |
| 4 | <input type="checkbox"/> | 1250.000  | 1142.392   | 4908517.91  | 0.3882 | A   | 1.3  |
| 5 | <input type="checkbox"/> | 2500.000  | 2493.066   | 10268780.61 | 0.8472 | A   | 2.1  |
| 6 | <input type="checkbox"/> | 5000.000  | 4998.664   | 20005676.65 | 1.6987 | A   | 2.3  |
| 7 | <input type="checkbox"/> | 10000.000 | 10015.860  | 39622589.41 | 3.4036 | A   | 3.0  |
| 8 | <input type="checkbox"/> |           |            | 12333.10    | 0.0011 | P   | 9.4  |

$$y = 3.3982E-004 * x + 2.1770E-005$$

$$R = 0.9999$$

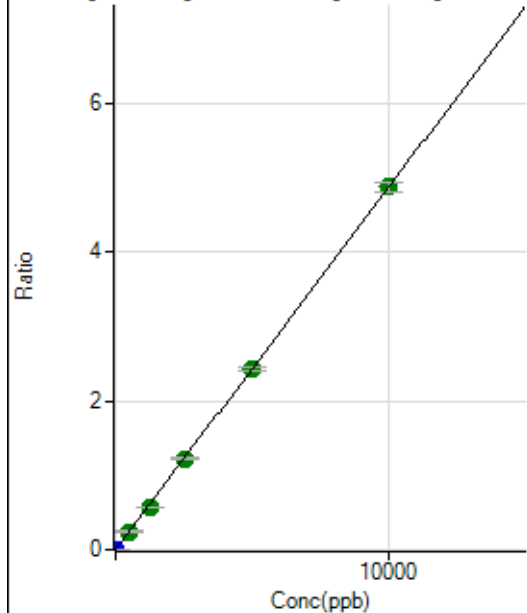
$$DL = 0.02192$$

$$BEC = 0.06406$$

Weight: <None>

Min Conc: 0

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



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS         | Ratio  | Det | RSD  |
|---|--------------------------|-----------|------------|-------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 152.22      | 0.0000 | P   | 12.3 |
| 2 | <input type="checkbox"/> | 5.000     | 5.316      | 33786.69    | 0.0026 | P   | 0.1  |
| 3 | <input type="checkbox"/> | 500.000   | 501.848    | 3157216.62  | 0.2439 | A   | 1.5  |
| 4 | <input type="checkbox"/> | 1250.000  | 1153.696   | 7090117.25  | 0.5608 | A   | 1.3  |
| 5 | <input type="checkbox"/> | 2500.000  | 2506.962   | 14769476.59 | 1.2185 | A   | 2.1  |
| 6 | <input type="checkbox"/> | 5000.000  | 4985.424   | 28539403.47 | 2.4232 | A   | 2.2  |
| 7 | <input type="checkbox"/> | 10000.000 | 10017.493  | 56685164.71 | 4.8691 | A   | 2.5  |
| 8 | <input type="checkbox"/> |           |            | 12854.65    | 0.0011 | P   | 10.8 |

$$y = 4.8606E-004 * x + 1.1640E-005$$

$$R = 0.9999$$

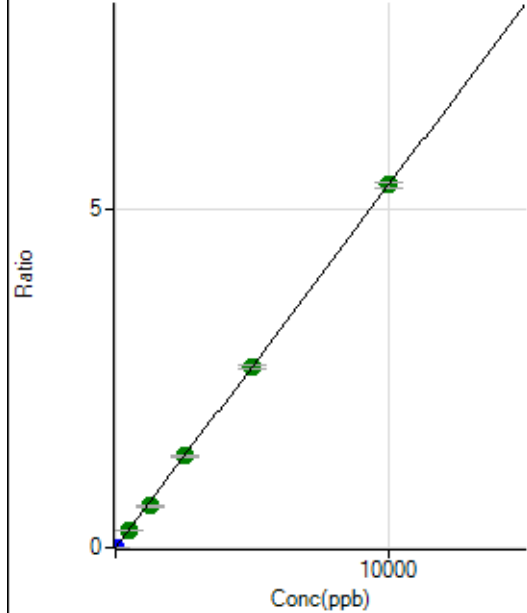
$$DL = 0.008825$$

$$BEC = 0.02395$$

Weight: <None>

Min Conc: 0

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



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS         | Ratio  | Det | RSD  |
|---|--------------------------|-----------|------------|-------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 243.34      | 0.0000 | P   | 10.7 |
| 2 | <input type="checkbox"/> | 5.000     | 5.392      | 37838.88    | 0.0029 | P   | 1.6  |
| 3 | <input type="checkbox"/> | 500.000   | 497.875    | 3452789.36  | 0.2667 | A   | 1.0  |
| 4 | <input type="checkbox"/> | 1250.000  | 1142.589   | 7738728.43  | 0.6121 | A   | 2.0  |
| 5 | <input type="checkbox"/> | 2500.000  | 2522.069   | 16377266.56 | 1.3511 | A   | 2.0  |
| 6 | <input type="checkbox"/> | 5000.000  | 4995.987   | 31522075.09 | 2.6764 | A   | 2.0  |
| 7 | <input type="checkbox"/> | 10000.000 | 10010.022  | 62434211.85 | 5.3625 | A   | 1.6  |
| 8 | <input type="checkbox"/> |           |            | 23237.49    | 0.0021 | P   | 5.2  |

$$y = 5.3572E-004 * x + 1.8621E-005$$

$$R = 0.9999$$

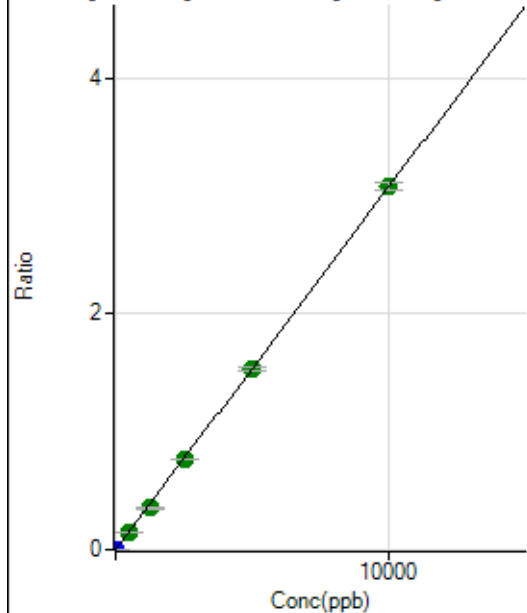
$$DL = 0.01118$$

$$BEC = 0.03476$$

Weight: <None>

Min Conc: 0

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



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS         | Ratio  | Det | RSD  |
|---|--------------------------|-----------|------------|-------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 97.78       | 0.0000 | P   | 5.7  |
| 2 | <input type="checkbox"/> | 5.000     | 5.188      | 20866.06    | 0.0016 | P   | 0.9  |
| 3 | <input type="checkbox"/> | 500.000   | 498.556    | 1984592.39  | 0.1533 | A   | 1.0  |
| 4 | <input type="checkbox"/> | 1250.000  | 1143.385   | 4446169.34  | 0.3516 | A   | 0.5  |
| 5 | <input type="checkbox"/> | 2500.000  | 2489.956   | 9281790.07  | 0.7657 | A   | 1.7  |
| 6 | <input type="checkbox"/> | 5000.000  | 5009.066   | 18142448.20 | 1.5404 | A   | 2.0  |
| 7 | <input type="checkbox"/> | 10000.000 | 10011.377  | 35844401.13 | 3.0788 | A   | 2.0  |
| 8 | <input type="checkbox"/> |           |            | 8043.42     | 0.0007 | P   | 10.3 |

$$y = 3.0753E-004 * x + 7.4815E-006$$

$$R = 0.9999$$

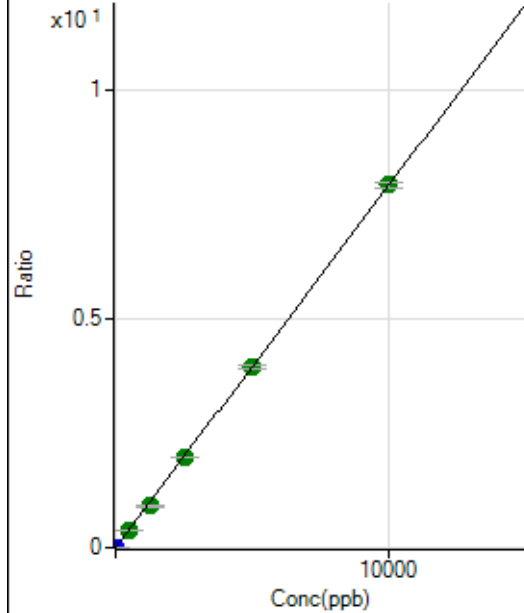
$$DL = 0.00417$$

$$BEC = 0.02433$$

Weight: <None>

Min Conc: 0

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



|   | Rj<br>ct                 | Conc.     | Calc Conc. | CPS         | Ratio  | Det | RSD  |
|---|--------------------------|-----------|------------|-------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000     | 0.000      | 274.45      | 0.0000 | P   | 16.1 |
| 2 | <input type="checkbox"/> | 5.000     | 5.250      | 54406.35    | 0.0042 | P   | 0.4  |
| 3 | <input type="checkbox"/> | 500.000   | 497.271    | 5098478.61  | 0.3939 | A   | 1.1  |
| 4 | <input type="checkbox"/> | 1250.000  | 1143.319   | 11451430.11 | 0.9056 | A   | 0.9  |
| 5 | <input type="checkbox"/> | 2500.000  | 2499.260   | 23997261.03 | 1.9797 | A   | 1.2  |
| 6 | <input type="checkbox"/> | 5000.000  | 4986.900   | 46521001.53 | 3.9501 | A   | 2.3  |
| 7 | <input type="checkbox"/> | 10000.000 | 10020.206  | 92405943.07 | 7.9369 | A   | 1.8  |
| 8 | <input type="checkbox"/> |           |            | 20128.52    | 0.0018 | P   | 10.4 |

$$y = 7.9209E-004 * x + 2.0985E-005$$

$$R = 0.9999$$

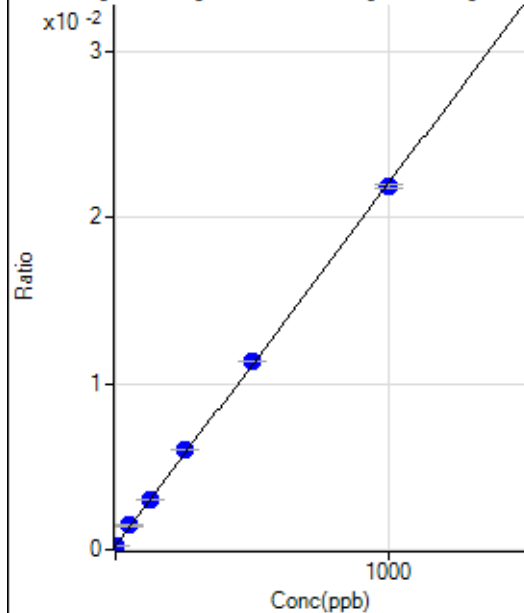
$$DL = 0.01279$$

$$BEC = 0.02649$$

Weight: <None>

Min Conc: 0

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



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS       | Ratio  | Det | RSD |
|---|--------------------------|----------|------------|-----------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 3043.68   | 0.0002 | P   | 7.2 |
| 2 | <input type="checkbox"/> | 1.000    | 1.584      | 3573.81   | 0.0003 | P   | 6.1 |
| 3 | <input type="checkbox"/> | 50.000   | 56.458     | 20257.51  | 0.0015 | P   | 1.7 |
| 4 | <input type="checkbox"/> | 125.000  | 126.503    | 41252.89  | 0.0030 | P   | 1.2 |
| 5 | <input type="checkbox"/> | 250.000  | 267.090    | 83035.53  | 0.0061 | P   | 0.2 |
| 6 | <input type="checkbox"/> | 500.000  | 509.328    | 156059.37 | 0.0113 | P   | 0.9 |
| 7 | <input type="checkbox"/> | 1000.000 | 990.552    | 301597.31 | 0.0219 | P   | 1.2 |
| 8 | <input type="checkbox"/> |          |            | 2912.54   | 0.0002 | P   | 2.0 |

$$y = 2.1848E-005 * x + 2.1908E-004$$

$$R = 0.9998$$

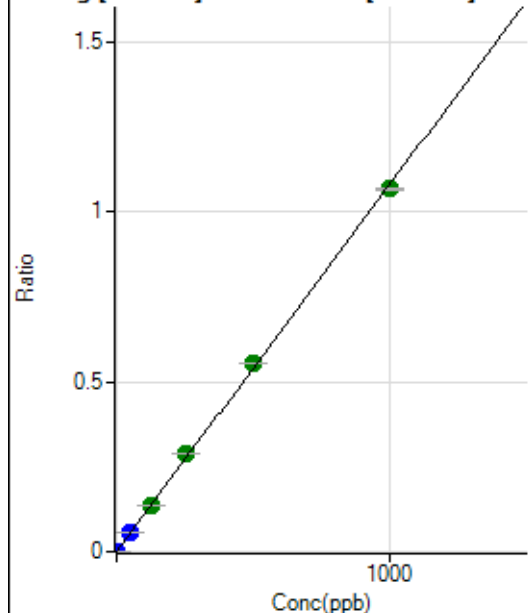
$$DL = 2.171$$

$$BEC = 10.03$$

Weight: <None>

Min Conc: 0

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



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD |
|---|--------------------------|----------|------------|-------------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 85.56       | 0.0000 | P   | 9.5 |
| 2 | <input type="checkbox"/> | 1.000    | 1.112      | 16994.49    | 0.0012 | P   | 1.2 |
| 3 | <input type="checkbox"/> | 50.000   | 54.206     | 816115.64   | 0.0585 | P   | 1.3 |
| 4 | <input type="checkbox"/> | 125.000  | 126.558    | 1889615.65  | 0.1366 | A   | 0.2 |
| 5 | <input type="checkbox"/> | 250.000  | 267.893    | 3966386.50  | 0.2892 | A   | 0.2 |
| 6 | <input type="checkbox"/> | 500.000  | 512.387    | 7608259.82  | 0.5532 | A   | 0.5 |
| 7 | <input type="checkbox"/> | 1000.000 | 988.928    | 14729859.92 | 1.0676 | A   | 0.8 |
| 8 | <input type="checkbox"/> |          |            | 3360.42     | 0.0003 | P   | 7.8 |

$$y = 0.0011 * x + 6.1564E-006$$

$$R = 0.9997$$

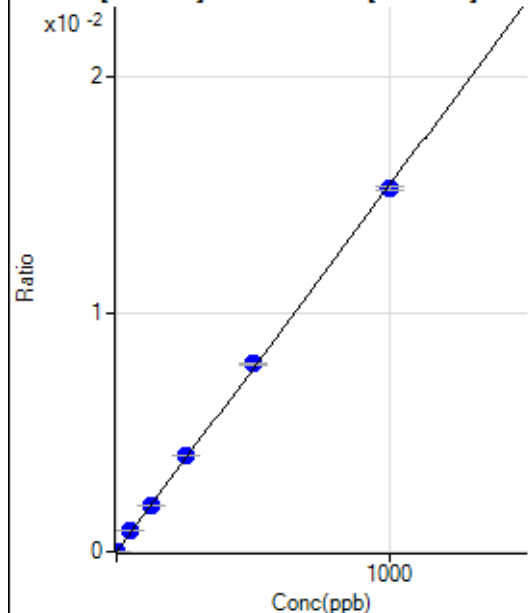
$$DL = 0.001623$$

$$BEC = 0.005703$$

Weight: <None>

Min Conc: 0

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



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS       | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|-----------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 10.00     | 0.0000 | P   | 33.4 |
| 2 | <input type="checkbox"/> | 1.000    | 1.094      | 247.78    | 0.0000 | P   | 4.9  |
| 3 | <input type="checkbox"/> | 50.000   | 57.071     | 12278.60  | 0.0009 | P   | 0.7  |
| 4 | <input type="checkbox"/> | 125.000  | 127.088    | 27104.26  | 0.0020 | P   | 0.4  |
| 5 | <input type="checkbox"/> | 250.000  | 263.837    | 55786.67  | 0.0041 | P   | 0.6  |
| 6 | <input type="checkbox"/> | 500.000  | 511.954    | 108555.37 | 0.0079 | P   | 0.3  |
| 7 | <input type="checkbox"/> | 1000.000 | 989.949    | 210556.33 | 0.0153 | P   | 1.2  |
| 8 | <input type="checkbox"/> |          |            | 113.33    | 0.0000 | P   | 4.3  |

$$y = 1.5415E-005 * x + 7.2010E-007$$

$$R = 0.9998$$

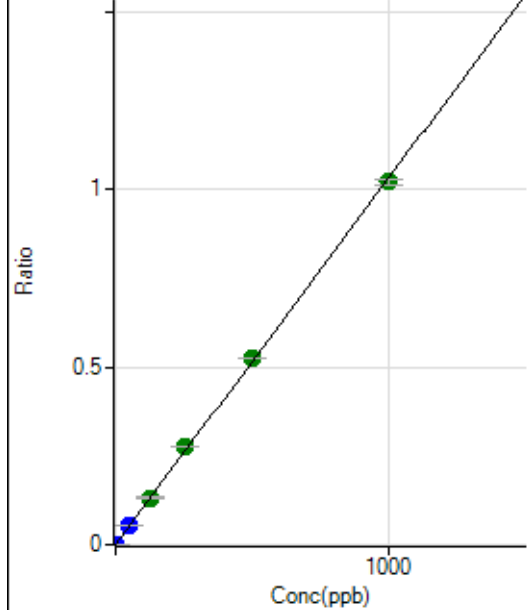
$$DL = 0.04683$$

$$BEC = 0.04671$$

Weight: <None>

Min Conc: 0

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



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|-------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 35.55       | 0.0000 | P   | 30.5 |
| 2 | <input type="checkbox"/> | 1.000    | 1.108      | 16116.84    | 0.0011 | P   | 1.3  |
| 3 | <input type="checkbox"/> | 50.000   | 54.441     | 782310.76   | 0.0561 | P   | 0.9  |
| 4 | <input type="checkbox"/> | 125.000  | 128.269    | 1827941.50  | 0.1322 | A   | 1.3  |
| 5 | <input type="checkbox"/> | 250.000  | 267.392    | 3778476.19  | 0.2755 | A   | 0.7  |
| 6 | <input type="checkbox"/> | 500.000  | 509.843    | 7225673.71  | 0.5253 | A   | 0.2  |
| 7 | <input type="checkbox"/> | 1000.000 | 990.100    | 14075193.12 | 1.0202 | A   | 1.5  |
| 8 | <input type="checkbox"/> |          |            | 3279.30     | 0.0003 | P   | 10.3 |

$$y = 0.0010 * x + 2.5614E-006$$

$$R = 0.9998$$

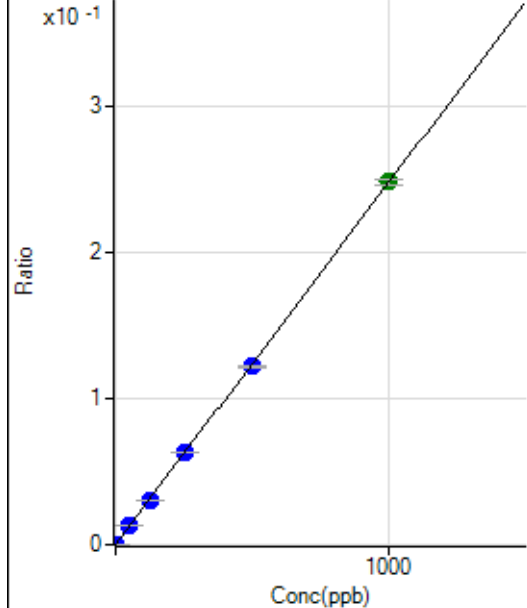
$$DL = 0.002277$$

$$BEC = 0.002486$$

Weight: <None>

Min Conc: 0

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



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS        | Ratio  | Det | RSD |
|---|--------------------------|----------|------------|------------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 2132.66    | 0.0002 | P   | 6.9 |
| 2 | <input type="checkbox"/> | 1.000    | 1.188      | 6303.71    | 0.0004 | P   | 0.6 |
| 3 | <input type="checkbox"/> | 50.000   | 52.759     | 184263.13  | 0.0132 | P   | 0.5 |
| 4 | <input type="checkbox"/> | 125.000  | 121.219    | 417090.22  | 0.0302 | P   | 0.7 |
| 5 | <input type="checkbox"/> | 250.000  | 255.552    | 869586.97  | 0.0634 | P   | 1.0 |
| 6 | <input type="checkbox"/> | 500.000  | 492.315    | 1678161.75 | 0.1220 | P   | 1.2 |
| 7 | <input type="checkbox"/> | 1000.000 | 1002.789   | 3426836.65 | 0.2484 | A   | 1.4 |
| 8 | <input type="checkbox"/> |          |            | 2803.47    | 0.0002 | P   | 5.3 |

$$y = 2.4753E-004 * x + 1.5351E-004$$

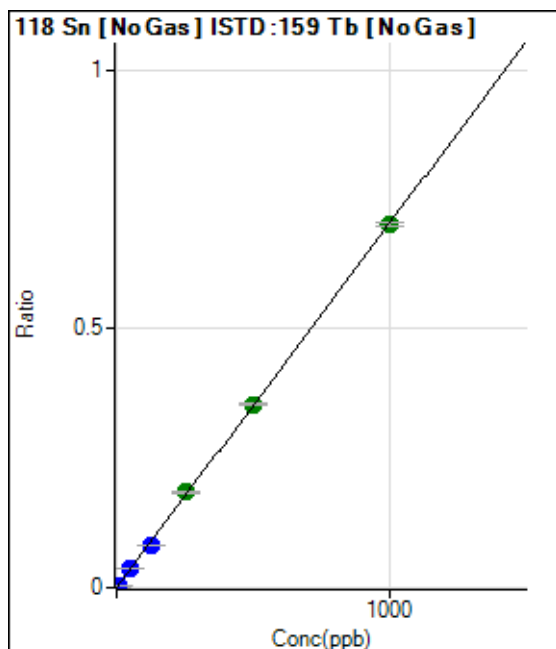
$$R = 0.9999$$

$$DL = 0.1279$$

$$BEC = 0.6201$$

Weight: <None>

Min Conc: 0



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS        | Ratio  | Det | RSD |
|---|--------------------------|----------|------------|------------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 1461.20    | 0.0001 | P   | 4.2 |
| 2 | <input type="checkbox"/> | 5.000    | 5.592      | 56944.12   | 0.0040 | P   | 1.0 |
| 3 | <input type="checkbox"/> | 50.000   | 51.674     | 508756.88  | 0.0365 | P   | 1.2 |
| 4 | <input type="checkbox"/> | 125.000  | 117.369    | 1144163.57 | 0.0827 | P   | 0.8 |
| 5 | <input type="checkbox"/> | 250.000  | 262.111    | 2532217.63 | 0.1846 | A   | 0.8 |
| 6 | <input type="checkbox"/> | 500.000  | 503.561    | 4877544.17 | 0.3546 | A   | 1.1 |
| 7 | <input type="checkbox"/> | 1000.000 | 996.059    | 9676430.27 | 0.7013 | A   | 1.0 |
| 8 | <input type="checkbox"/> |          |            | 4419.61    | 0.0003 | P   | 5.0 |

$$y = 7.0401\text{E-}004 * x + 1.0518\text{E-}004$$

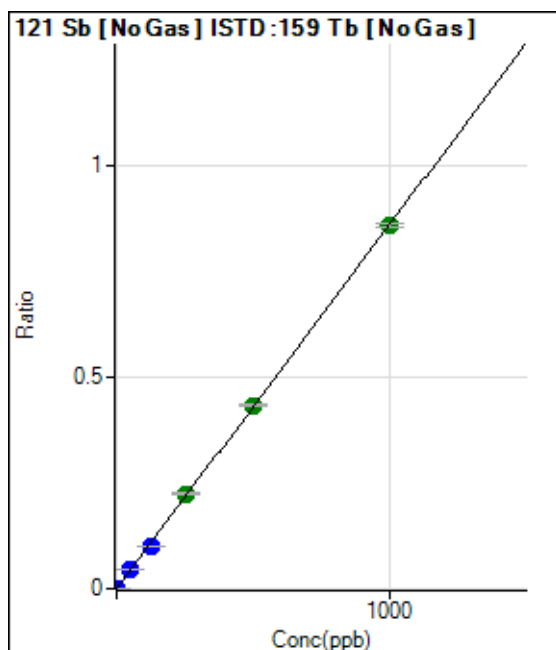
$$R = 0.9999$$

$$DL = 0.01883$$

$$BEC = 0.1494$$

Weight: <None>

Min Conc: 0



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD |
|---|--------------------------|----------|------------|-------------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 36.67       | 0.0000 | P   | 9.4 |
| 2 | <input type="checkbox"/> | 2.000    | 2.198      | 26634.70    | 0.0019 | P   | 0.1 |
| 3 | <input type="checkbox"/> | 50.000   | 50.824     | 608856.81   | 0.0437 | P   | 0.7 |
| 4 | <input type="checkbox"/> | 125.000  | 115.797    | 1375660.79  | 0.0995 | P   | 0.7 |
| 5 | <input type="checkbox"/> | 250.000  | 260.113    | 3064052.56  | 0.2234 | A   | 1.2 |
| 6 | <input type="checkbox"/> | 500.000  | 503.354    | 5946904.56  | 0.4324 | A   | 0.9 |
| 7 | <input type="checkbox"/> | 1000.000 | 996.903    | 11814952.18 | 0.8563 | A   | 1.2 |
| 8 | <input type="checkbox"/> |          |            | 6359.23     | 0.0005 | P   | 4.1 |

$$y = 8.5900\text{E-}004 * x + 2.6395\text{E-}006$$

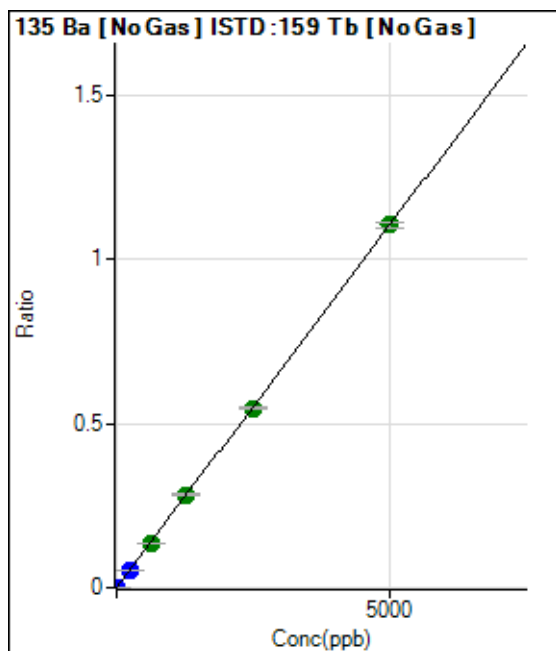
$$R = 0.9999$$

$$DL = 0.0008692$$

$$BEC = 0.003073$$

Weight: <None>

Min Conc: 0



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|-------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 27.78       | 0.0000 | P   | 34.3 |
| 2 | <input type="checkbox"/> | 10.000   | 10.614     | 33000.44    | 0.0023 | P   | 1.4  |
| 3 | <input type="checkbox"/> | 250.000  | 250.366    | 769970.94   | 0.0552 | P   | 1.3  |
| 4 | <input type="checkbox"/> | 625.000  | 599.387    | 1828114.31  | 0.1322 | A   | 0.2  |
| 5 | <input type="checkbox"/> | 1250.000 | 1283.911   | 3883265.19  | 0.2831 | A   | 0.7  |
| 6 | <input type="checkbox"/> | 2500.000 | 2476.640   | 7512290.03  | 0.5462 | A   | 0.6  |
| 7 | <input type="checkbox"/> | 5000.000 | 5006.384   | 15232524.77 | 1.1041 | A   | 1.4  |
| 8 | <input type="checkbox"/> |          |            | 7089.61     | 0.0005 | P   | 6.9  |

$$y = 2.2053E-004 * x + 1.9970E-006$$

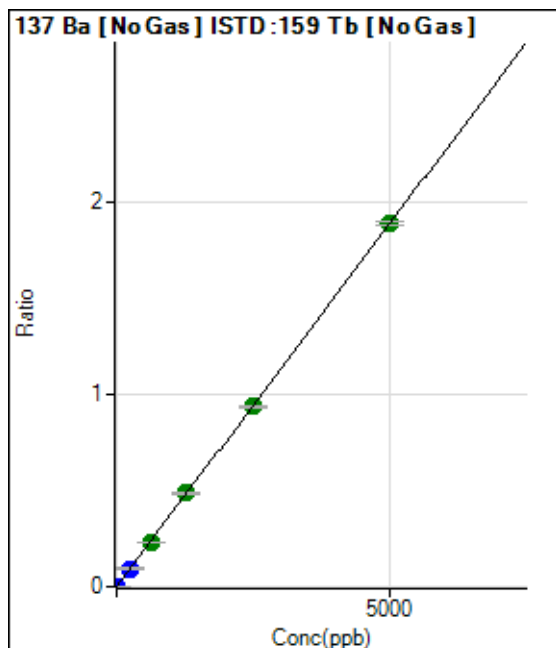
$$R = 0.9999$$

$$DL = 0.009314$$

$$BEC = 0.009055$$

Weight: <None>

Min Conc: 0



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD |
|---|--------------------------|----------|------------|-------------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 64.44       | 0.0000 | P   | 7.7 |
| 2 | <input type="checkbox"/> | 10.000   | 10.704     | 56923.28    | 0.0040 | P   | 0.8 |
| 3 | <input type="checkbox"/> | 250.000  | 250.701    | 1318337.88  | 0.0945 | P   | 1.0 |
| 4 | <input type="checkbox"/> | 625.000  | 601.598    | 3137316.83  | 0.2269 | A   | 0.8 |
| 5 | <input type="checkbox"/> | 1250.000 | 1286.041   | 6650724.69  | 0.4849 | A   | 0.2 |
| 6 | <input type="checkbox"/> | 2500.000 | 2485.807   | 12892033.70 | 0.9374 | A   | 0.8 |
| 7 | <input type="checkbox"/> | 5000.000 | 5000.975   | 26017432.39 | 1.8858 | A   | 1.2 |
| 8 | <input type="checkbox"/> |          |            | 12129.69    | 0.0009 | P   | 1.8 |

$$y = 3.7708E-004 * x + 4.6377E-006$$

$$R = 0.9999$$

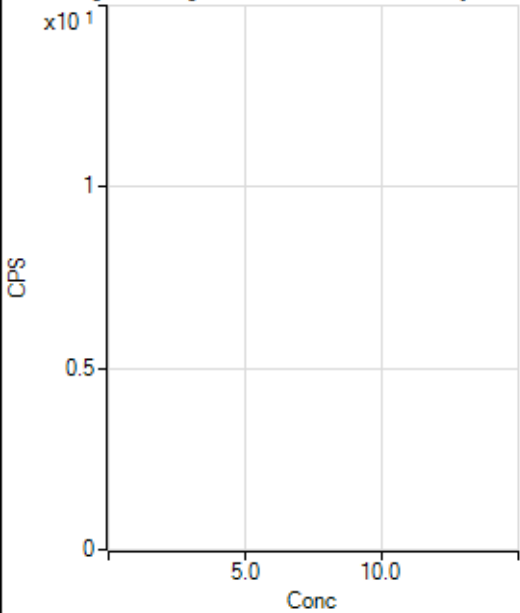
$$DL = 0.002847$$

$$BEC = 0.0123$$

Weight: <None>

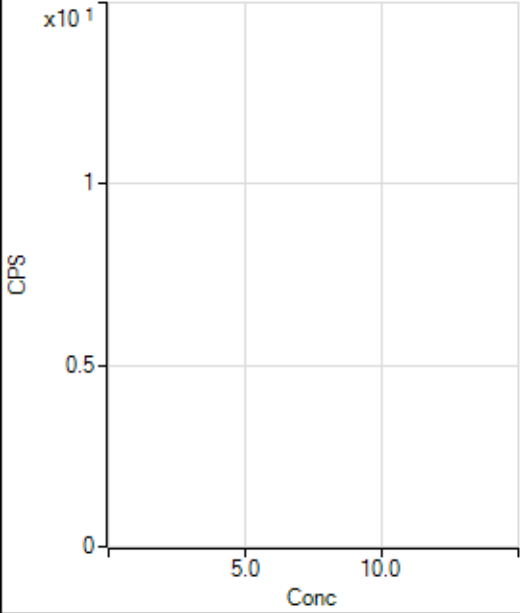
Min Conc: 0

150 Nd [ No Gas ] No available calibration points



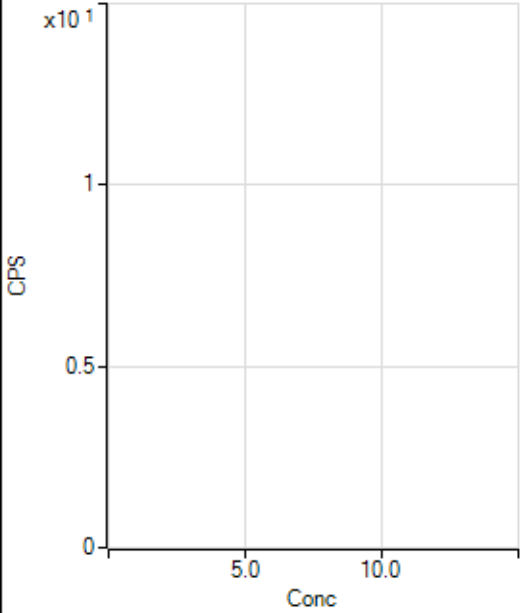
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS    | Ratio | Det<br>. | RSD  |
|---|--------------------------|-------|------------|--------|-------|----------|------|
| 1 | <input type="checkbox"/> |       |            | 5.56   |       | P        | 34.7 |
| 2 | <input type="checkbox"/> |       |            | 3.33   |       | P        | 100. |
| 3 | <input type="checkbox"/> |       |            | 52.22  |       | P        | 13.3 |
| 4 | <input type="checkbox"/> |       |            | 101.11 |       | P        | 23.9 |
| 5 | <input type="checkbox"/> |       |            | 222.23 |       | P        | 11.1 |
| 6 | <input type="checkbox"/> |       |            | 390.01 |       | P        | 8.2  |
| 7 | <input type="checkbox"/> |       |            | 667.80 |       | P        | 11.5 |
| 8 | <input type="checkbox"/> |       |            | 243.34 |       | P        | 14.3 |

150 Nd [ He ] No available calibration points



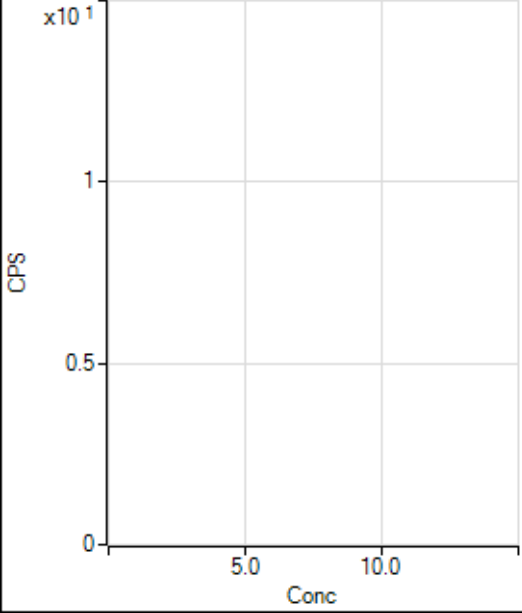
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS    | Ratio | Det<br>. | RSD  |
|---|--------------------------|-------|------------|--------|-------|----------|------|
| 1 | <input type="checkbox"/> |       |            | 3.33   |       | P        | 0.0  |
| 2 | <input type="checkbox"/> |       |            | 3.33   |       | P        | 100. |
| 3 | <input type="checkbox"/> |       |            | 13.34  |       | P        | 43.3 |
| 4 | <input type="checkbox"/> |       |            | 23.33  |       | P        | 37.8 |
| 5 | <input type="checkbox"/> |       |            | 47.78  |       | P        | 14.5 |
| 6 | <input type="checkbox"/> |       |            | 98.89  |       | P        | 23.7 |
| 7 | <input type="checkbox"/> |       |            | 173.34 |       | P        | 25.4 |
| 8 | <input type="checkbox"/> |       |            | 152.23 |       | P        | 9.9  |

156 Dy [ No Gas ] No available calibration points



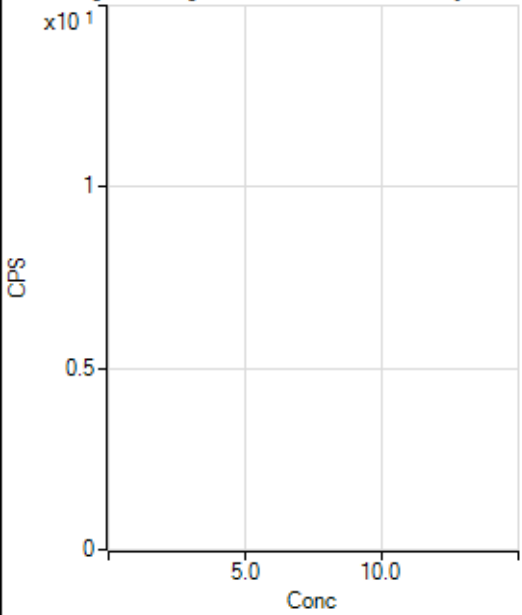
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS    | Ratio | Det<br>. | RSD  |
|---|--------------------------|-------|------------|--------|-------|----------|------|
| 1 | <input type="checkbox"/> |       |            | 10.00  |       | P        | 66.7 |
| 2 | <input type="checkbox"/> |       |            | 14.44  |       | P        | 35.3 |
| 3 | <input type="checkbox"/> |       |            | 31.11  |       | P        | 44.6 |
| 4 | <input type="checkbox"/> |       |            | 43.33  |       | P        | 50.4 |
| 5 | <input type="checkbox"/> |       |            | 60.00  |       | P        | 5.5  |
| 6 | <input type="checkbox"/> |       |            | 130.00 |       | P        | 11.7 |
| 7 | <input type="checkbox"/> |       |            | 236.67 |       | P        | 10.2 |
| 8 | <input type="checkbox"/> |       |            | 421.12 |       | P        | 3.0  |

156 Dy [ He ] No available calibration points



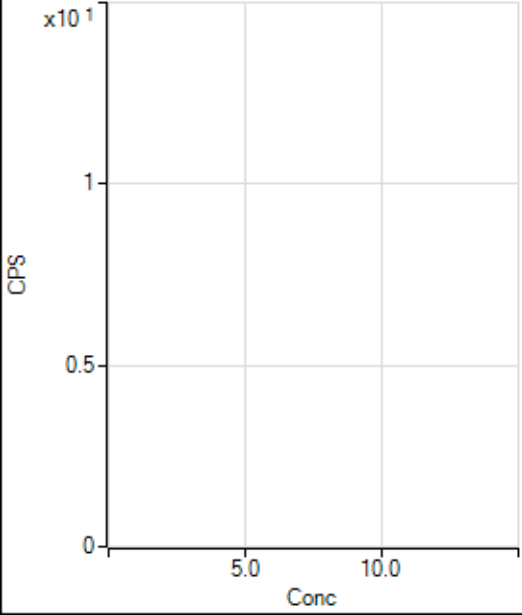
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS    | Ratio | Det<br>. | RSD  |
|---|--------------------------|-------|------------|--------|-------|----------|------|
| 1 | <input type="checkbox"/> |       |            | 8.89   |       | P        | 21.6 |
| 2 | <input type="checkbox"/> |       |            | 14.44  |       | P        | 58.1 |
| 3 | <input type="checkbox"/> |       |            | 46.67  |       | P        | 58.5 |
| 4 | <input type="checkbox"/> |       |            | 77.78  |       | P        | 17.8 |
| 5 | <input type="checkbox"/> |       |            | 212.22 |       | P        | 22.0 |
| 6 | <input type="checkbox"/> |       |            | 363.34 |       | P        | 0.9  |
| 7 | <input type="checkbox"/> |       |            | 756.70 |       | P        | 7.3  |
| 8 | <input type="checkbox"/> |       |            | 343.34 |       | P        | 2.6  |

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



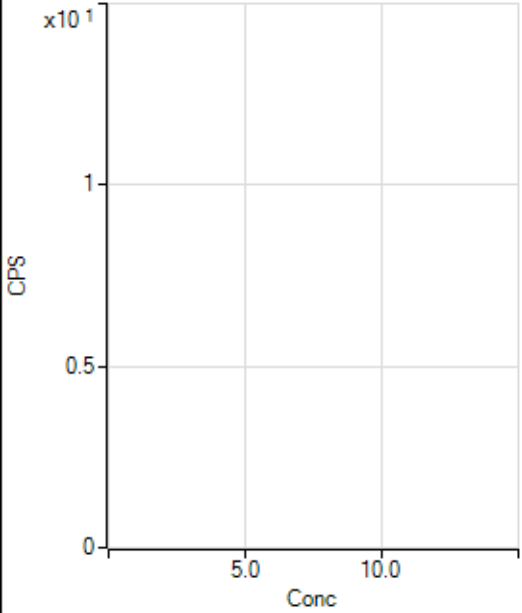
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS    | Ratio | Det<br>. | RSD  |
|---|--------------------------|-------|------------|--------|-------|----------|------|
| 1 | <input type="checkbox"/> |       |            | 43.33  |       | P        | 27.7 |
| 2 | <input type="checkbox"/> |       |            | 52.22  |       | P        | 22.4 |
| 3 | <input type="checkbox"/> |       |            | 42.22  |       | P        | 44.9 |
| 4 | <input type="checkbox"/> |       |            | 64.44  |       | P        | 21.5 |
| 5 | <input type="checkbox"/> |       |            | 61.11  |       | P        | 13.7 |
| 6 | <input type="checkbox"/> |       |            | 97.78  |       | P        | 17.2 |
| 7 | <input type="checkbox"/> |       |            | 133.33 |       | P        | 18.0 |
| 8 | <input type="checkbox"/> |       |            | 428.90 |       | P        | 3.5  |

160 Gd [ He ] No available calibration points



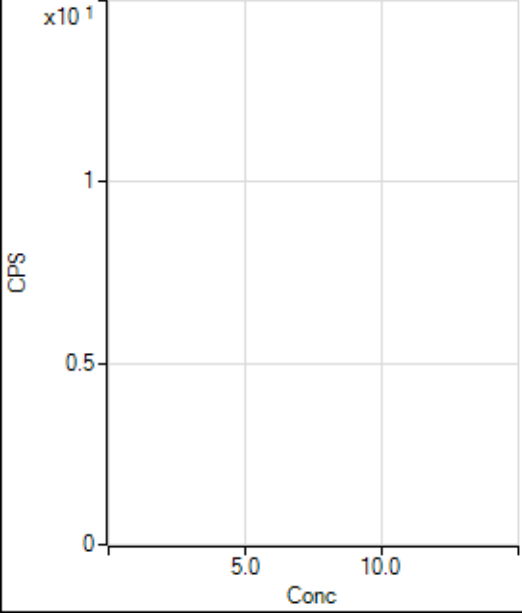
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS    | Ratio | Det<br>. | RSD  |
|---|--------------------------|-------|------------|--------|-------|----------|------|
| 1 | <input type="checkbox"/> |       |            | 511.13 |       | P        | 9.5  |
| 2 | <input type="checkbox"/> |       |            | 557.80 |       | P        | 5.8  |
| 3 | <input type="checkbox"/> |       |            | 567.80 |       | P        | 2.4  |
| 4 | <input type="checkbox"/> |       |            | 550.02 |       | P        | 6.3  |
| 5 | <input type="checkbox"/> |       |            | 582.24 |       | P        | 8.8  |
| 6 | <input type="checkbox"/> |       |            | 555.58 |       | P        | 11.7 |
| 7 | <input type="checkbox"/> |       |            | 567.79 |       | P        | 8.3  |
| 8 | <input type="checkbox"/> |       |            | 862.26 |       | P        | 3.1  |

164 Er [ No Gas ] No available calibration points



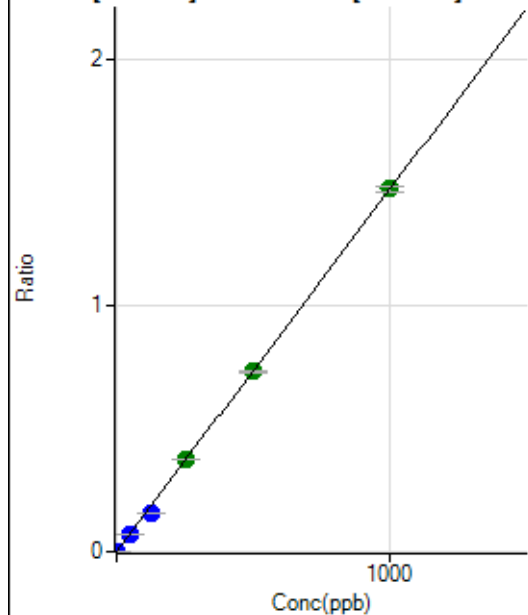
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS    | Ratio | Det<br>. | RSD  |
|---|--------------------------|-------|------------|--------|-------|----------|------|
| 1 | <input type="checkbox"/> |       |            | 56.67  |       | P        | 15.6 |
| 2 | <input type="checkbox"/> |       |            | 60.00  |       | P        | 14.7 |
| 3 | <input type="checkbox"/> |       |            | 67.78  |       | P        | 32.0 |
| 4 | <input type="checkbox"/> |       |            | 63.33  |       | P        | 22.9 |
| 5 | <input type="checkbox"/> |       |            | 73.33  |       | P        | 27.7 |
| 6 | <input type="checkbox"/> |       |            | 112.22 |       | P        | 27.6 |
| 7 | <input type="checkbox"/> |       |            | 178.89 |       | P        | 15.8 |
| 8 | <input type="checkbox"/> |       |            | 492.24 |       | P        | 1.4  |

164 Er [ He ] No available calibration points



|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS    | Ratio | Det<br>. | RSD  |
|---|--------------------------|-------|------------|--------|-------|----------|------|
| 1 | <input type="checkbox"/> |       |            | 36.66  |       | P        | 15.7 |
| 2 | <input type="checkbox"/> |       |            | 41.11  |       | P        | 24.8 |
| 3 | <input type="checkbox"/> |       |            | 50.00  |       | P        | 29.1 |
| 4 | <input type="checkbox"/> |       |            | 58.89  |       | P        | 8.6  |
| 5 | <input type="checkbox"/> |       |            | 53.33  |       | P        | 6.3  |
| 6 | <input type="checkbox"/> |       |            | 88.89  |       | P        | 17.3 |
| 7 | <input type="checkbox"/> |       |            | 128.89 |       | P        | 27.4 |
| 8 | <input type="checkbox"/> |       |            | 358.90 |       | P        | 10.8 |

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



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|-------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 154.45      | 0.0000 | P   | 9.5  |
| 2 | <input type="checkbox"/> | 1.000    | 0.980      | 12066.57    | 0.0015 | P   | 1.4  |
| 3 | <input type="checkbox"/> | 50.000   | 46.131     | 562316.16   | 0.0679 | P   | 2.1  |
| 4 | <input type="checkbox"/> | 125.000  | 106.391    | 1295371.58  | 0.1566 | P   | 1.4  |
| 5 | <input type="checkbox"/> | 250.000  | 253.821    | 3080651.72  | 0.3735 | A   | 1.0  |
| 6 | <input type="checkbox"/> | 500.000  | 498.437    | 6099681.23  | 0.7335 | A   | 0.7  |
| 7 | <input type="checkbox"/> | 1000.000 | 1002.346   | 12076888.57 | 1.4750 | A   | 1.5  |
| 8 | <input type="checkbox"/> |          |            | 2076.85     | 0.0003 | P   | 15.1 |

$$y = 0.0015 * x + 1.8902E-005$$

$$R = 0.9998$$

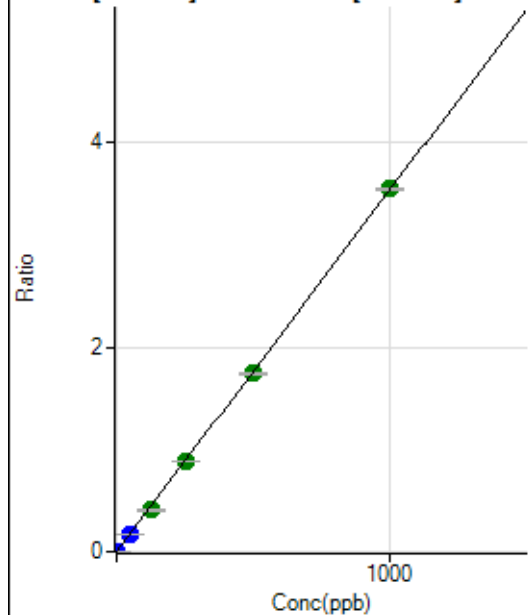
$$DL = 0.003649$$

$$BEC = 0.01285$$

Weight: <None>

Min Conc: 0

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



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|-------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 278.90      | 0.0000 | P   | 11.2 |
| 2 | <input type="checkbox"/> | 1.000    | 0.962      | 28302.77    | 0.0034 | P   | 1.0  |
| 3 | <input type="checkbox"/> | 50.000   | 45.674     | 1334391.62  | 0.1611 | P   | 0.9  |
| 4 | <input type="checkbox"/> | 125.000  | 114.955    | 3354497.31  | 0.4055 | A   | 1.3  |
| 5 | <input type="checkbox"/> | 250.000  | 250.457    | 7285522.53  | 0.8833 | A   | 0.6  |
| 6 | <input type="checkbox"/> | 500.000  | 493.461    | 14473632.15 | 1.7404 | A   | 0.7  |
| 7 | <input type="checkbox"/> | 1000.000 | 1004.627   | 29010359.84 | 3.5432 | A   | 0.8  |
| 8 | <input type="checkbox"/> |          |            | 4846.47     | 0.0007 | P   | 15.3 |

$$y = 0.0035 * x + 3.4141E-005$$

$$R = 0.9999$$

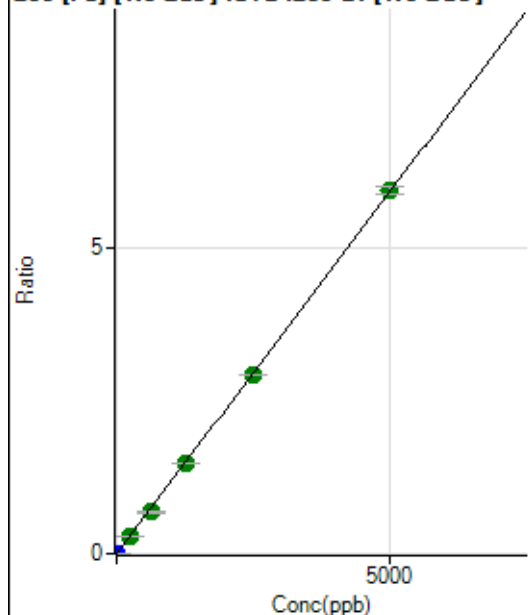
$$DL = 0.003255$$

$$BEC = 0.009681$$

Weight: <None>

Min Conc: 0

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



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|-------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 413.34      | 0.0001 | P   | 16.1 |
| 2 | <input type="checkbox"/> | 1.000    | 0.988      | 10037.13    | 0.0012 | P   | 2.2  |
| 3 | <input type="checkbox"/> | 250.000  | 246.811    | 2410137.95  | 0.2910 | A   | 1.4  |
| 4 | <input type="checkbox"/> | 625.000  | 575.920    | 5617553.32  | 0.6790 | A   | 1.6  |
| 5 | <input type="checkbox"/> | 1250.000 | 1252.362   | 12176831.48 | 1.4764 | A   | 1.1  |
| 6 | <input type="checkbox"/> | 2500.000 | 2474.789   | 24262663.25 | 2.9175 | A   | 0.9  |
| 7 | <input type="checkbox"/> | 5000.000 | 5018.309   | 48439133.17 | 5.9160 | A   | 2.1  |
| 8 | <input type="checkbox"/> |          |            | 12896.24    | 0.0018 | P   | 7.1  |

$$y = 0.0012 * x + 5.0615E-005$$

$$R = 0.9999$$

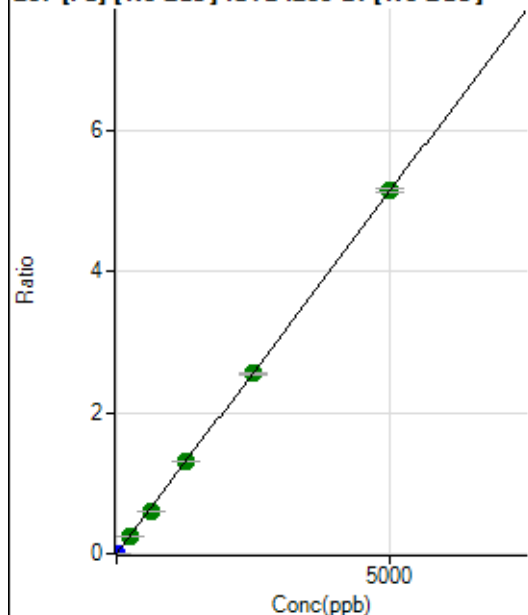
$$DL = 0.02074$$

$$BEC = 0.04293$$

Weight: <None>

Min Conc: 0

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



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD |
|---|--------------------------|----------|------------|-------------|--------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 331.12      | 0.0000 | P   | 6.6 |
| 2 | <input type="checkbox"/> | 1.000    | 0.972      | 8571.67     | 0.0010 | P   | 0.8 |
| 3 | <input type="checkbox"/> | 250.000  | 248.227    | 2110007.56  | 0.2548 | A   | 0.9 |
| 4 | <input type="checkbox"/> | 625.000  | 581.197    | 4934740.41  | 0.5965 | A   | 1.3 |
| 5 | <input type="checkbox"/> | 1250.000 | 1265.525   | 10711225.54 | 1.2987 | A   | 0.5 |
| 6 | <input type="checkbox"/> | 2500.000 | 2486.766   | 21222778.85 | 2.5519 | A   | 0.6 |
| 7 | <input type="checkbox"/> | 5000.000 | 5008.300   | 42081157.70 | 5.1395 | A   | 0.9 |
| 8 | <input type="checkbox"/> |          |            | 11295.91    | 0.0016 | P   | 6.5 |

$$y = 0.0010 * x + 4.0538E-005$$

$$R = 0.9999$$

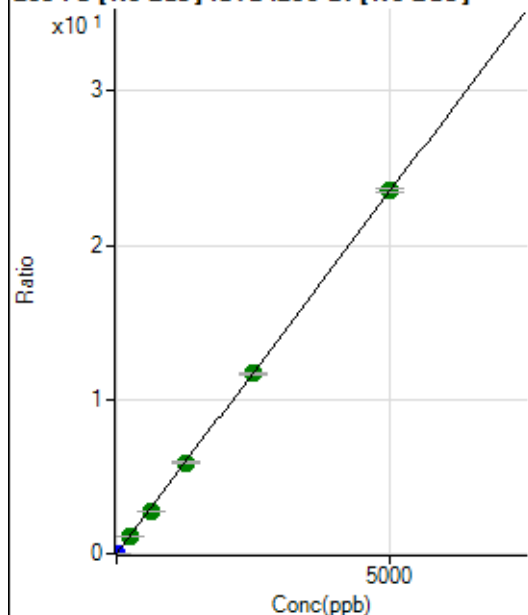
$$DL = 0.007851$$

$$BEC = 0.0395$$

Weight: <None>

Min Conc: 0

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



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS          | Ratio   | Det | RSD |
|---|--------------------------|----------|------------|--------------|---------|-----|-----|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 1634.50      | 0.0002  | P   | 8.5 |
| 2 | <input type="checkbox"/> | 1.000    | 0.969      | 39208.96     | 0.0047  | P   | 1.4 |
| 3 | <input type="checkbox"/> | 250.000  | 248.241    | 9652161.92   | 1.1654  | A   | 1.1 |
| 4 | <input type="checkbox"/> | 625.000  | 578.383    | 22463291.60  | 2.7151  | A   | 1.3 |
| 5 | <input type="checkbox"/> | 1250.000 | 1258.659   | 48729427.47  | 5.9083  | A   | 0.7 |
| 6 | <input type="checkbox"/> | 2500.000 | 2484.842   | 97001287.44  | 11.6641 | A   | 1.2 |
| 7 | <input type="checkbox"/> | 5000.000 | 5011.329   | 192605287.13 | 23.5234 | A   | 1.2 |
| 8 | <input type="checkbox"/> |          |            | 51180.26     | 0.0072  | P   | 6.6 |

$$y = 0.0047 * x + 2.0012E-004$$

R = 0.9999

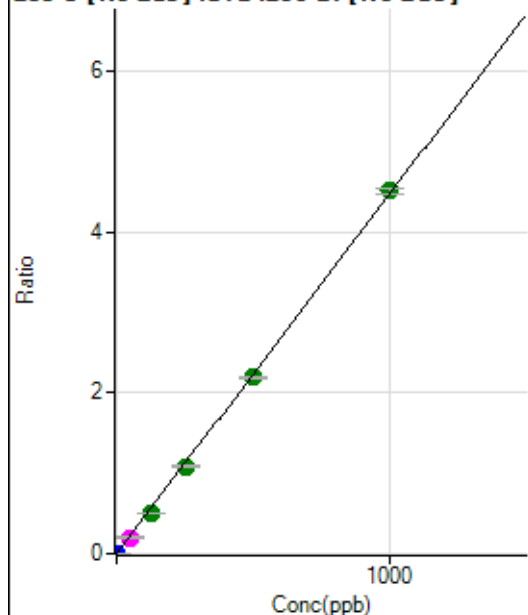
DL = 0.01085

BEC = 0.04263

Weight: <None>

Min Conc: 0

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



|   | Rj<br>ct                 | Conc.    | Calc Conc. | CPS         | Ratio  | Det | RSD  |
|---|--------------------------|----------|------------|-------------|--------|-----|------|
| 1 | <input type="checkbox"/> | 0.000    | 0.000      | 15.56       | 0.0000 | P   | 12.8 |
| 2 | <input type="checkbox"/> | 1.000    | 0.916      | 33844.34    | 0.0041 | P   | 2.0  |
| 3 | <input type="checkbox"/> | 50.000   | 45.446     | 1683872.55  | 0.2033 | M   | 5.0  |
| 4 | <input type="checkbox"/> | 125.000  | 110.823    | 4102500.43  | 0.4958 | A   | 0.4  |
| 5 | <input type="checkbox"/> | 250.000  | 242.415    | 8945083.76  | 1.0846 | A   | 1.0  |
| 6 | <input type="checkbox"/> | 500.000  | 489.886    | 18227369.17 | 2.1918 | A   | 1.1  |
| 7 | <input type="checkbox"/> | 1000.000 | 1008.953   | 36959996.12 | 4.5141 | A   | 1.8  |
| 8 | <input type="checkbox"/> |          |            | 5517.89     | 0.0008 | P   | 16.1 |

$$y = 0.0045 * x + 1.9049E-006$$

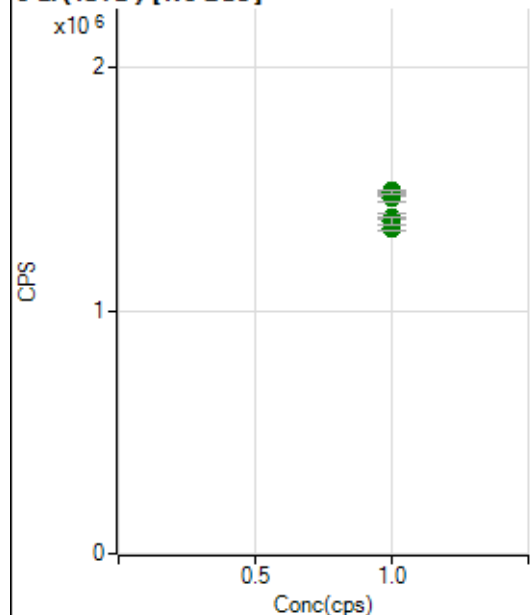
R = 0.9998

DL = 0.0001631

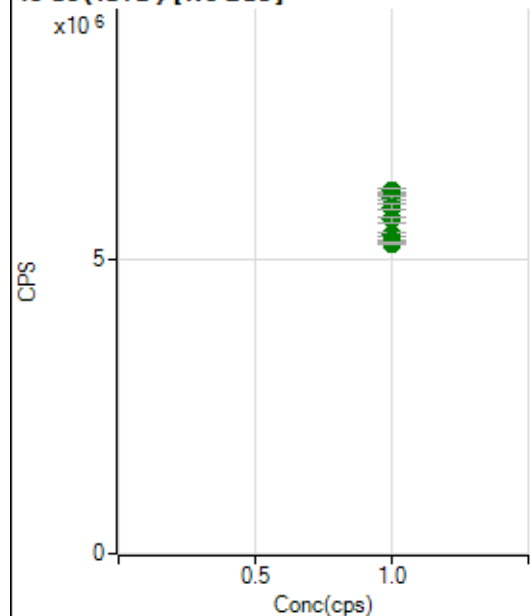
BEC = 0.0004258

Weight: <None>

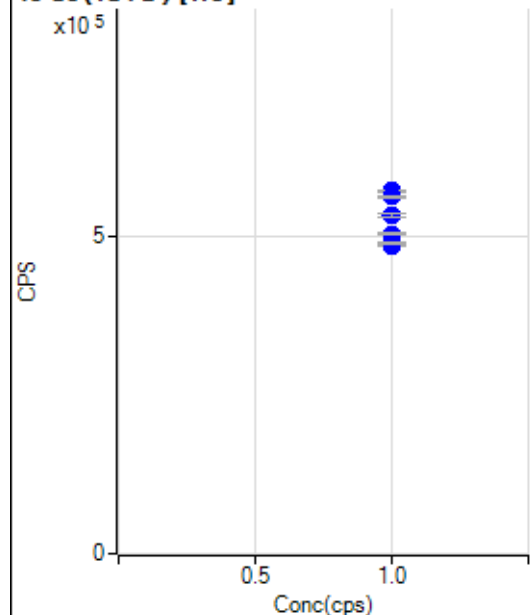
Min Conc: 0

**6 Li (ISTD) [No Gas]**

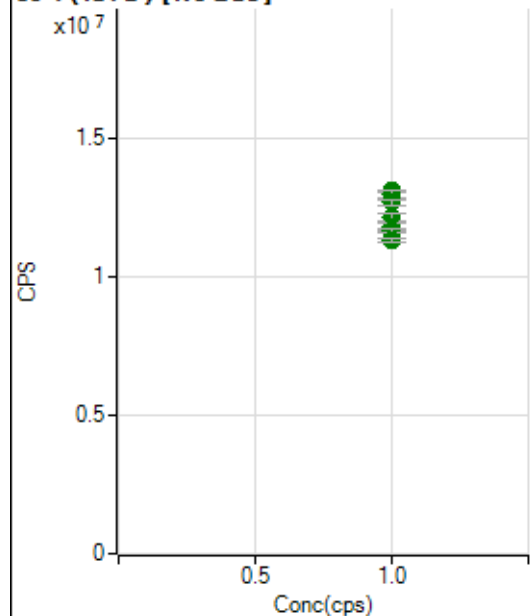
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS        | Ratio | Det. | RSD |
|---|--------------------------|-------|------------|------------|-------|------|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 1339895.07 |       | A    | 2.0 |
| 2 | <input type="checkbox"/> | 1.000 |            | 1367300.74 |       | A    | 1.7 |
| 3 | <input type="checkbox"/> | 1.000 |            | 1388341.54 |       | A    | 1.3 |
| 4 | <input type="checkbox"/> | 1.000 |            | 1460436.06 |       | A    | 1.3 |
| 5 | <input type="checkbox"/> | 1.000 |            | 1493245.88 |       | A    | 0.5 |
| 6 | <input type="checkbox"/> | 1.000 |            | 1492913.75 |       | A    | 0.3 |
| 7 | <input type="checkbox"/> | 1.000 |            | 1488153.16 |       | A    | 1.2 |
| 8 | <input type="checkbox"/> | 1.000 |            | 1369265.07 |       | A    | 2.2 |

**45 Sc (ISTD) [No Gas]**

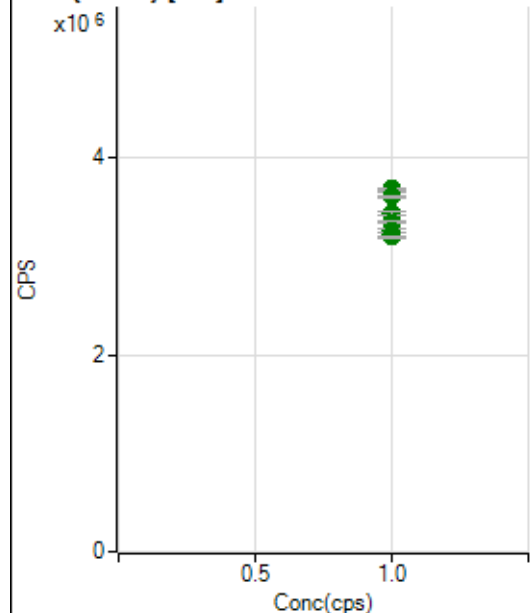
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS        | Ratio | Det. | RSD |
|---|--------------------------|-------|------------|------------|-------|------|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 6135053.52 |       | A    | 0.4 |
| 2 | <input type="checkbox"/> | 1.000 |            | 6176553.66 |       | A    | 1.3 |
| 3 | <input type="checkbox"/> | 1.000 |            | 6054034.01 |       | A    | 0.9 |
| 4 | <input type="checkbox"/> | 1.000 |            | 5896997.69 |       | A    | 1.6 |
| 5 | <input type="checkbox"/> | 1.000 |            | 5680056.44 |       | A    | 1.9 |
| 6 | <input type="checkbox"/> | 1.000 |            | 5421068.19 |       | A    | 1.2 |
| 7 | <input type="checkbox"/> | 1.000 |            | 5335881.87 |       | A    | 0.5 |
| 8 | <input type="checkbox"/> | 1.000 |            | 5277560.20 |       | A    | 0.8 |

**45 Sc (ISTD) [He]**

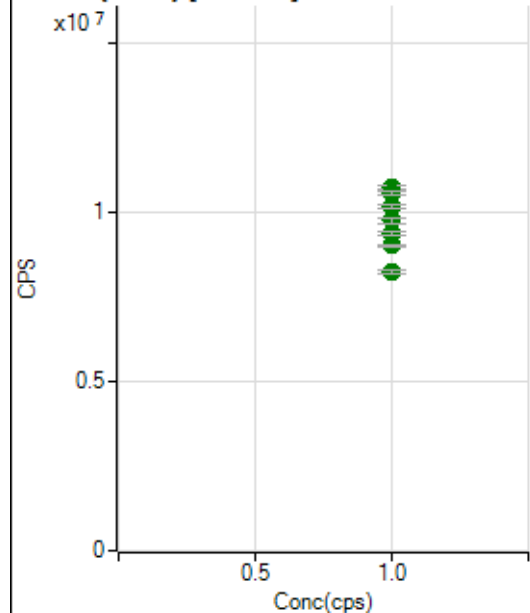
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS       | Ratio | Det. | RSD |
|---|--------------------------|-------|------------|-----------|-------|------|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 569225.06 |       | P    | 0.5 |
| 2 | <input type="checkbox"/> | 1.000 |            | 570835.41 |       | P    | 0.6 |
| 3 | <input type="checkbox"/> | 1.000 |            | 561475.99 |       | P    | 0.4 |
| 4 | <input type="checkbox"/> | 1.000 |            | 531372.31 |       | P    | 1.2 |
| 5 | <input type="checkbox"/> | 1.000 |            | 502543.38 |       | P    | 0.7 |
| 6 | <input type="checkbox"/> | 1.000 |            | 484153.60 |       | P    | 0.3 |
| 7 | <input type="checkbox"/> | 1.000 |            | 483660.57 |       | P    | 0.3 |
| 8 | <input type="checkbox"/> | 1.000 |            | 488560.90 |       | P    | 0.2 |

**89 Y (ISTD) [No Gas]**

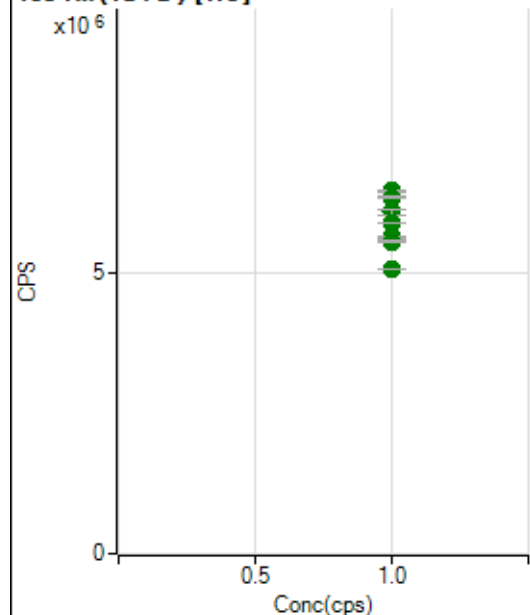
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS         | Ratio | Det. | RSD |
|---|--------------------------|-------|------------|-------------|-------|------|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 13071677.17 |       | A    | 0.6 |
| 2 | <input type="checkbox"/> | 1.000 |            | 13016435.08 |       | A    | 0.3 |
| 3 | <input type="checkbox"/> | 1.000 |            | 12945276.47 |       | A    | 2.0 |
| 4 | <input type="checkbox"/> | 1.000 |            | 12645232.87 |       | A    | 1.7 |
| 5 | <input type="checkbox"/> | 1.000 |            | 12123678.01 |       | A    | 1.8 |
| 6 | <input type="checkbox"/> | 1.000 |            | 11780770.38 |       | A    | 2.1 |
| 7 | <input type="checkbox"/> | 1.000 |            | 11644170.52 |       | A    | 1.2 |
| 8 | <input type="checkbox"/> | 1.000 |            | 11282163.16 |       | A    | 1.2 |

**89 Y (ISTD) [He]**

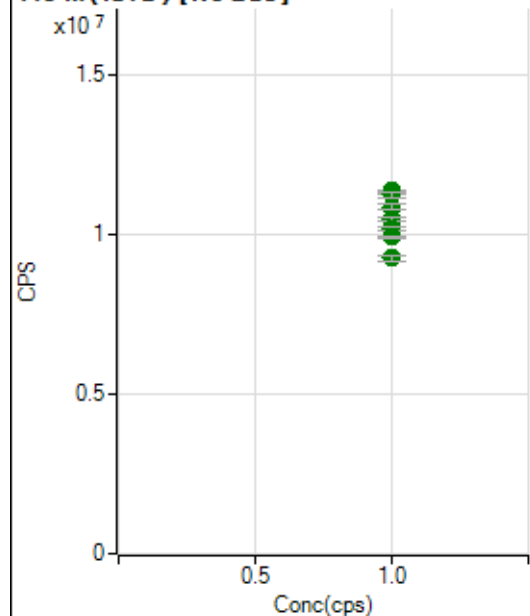
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS        | Ratio | Det. | RSD |
|---|--------------------------|-------|------------|------------|-------|------|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 3674046.85 |       | A    | 0.9 |
| 2 | <input type="checkbox"/> | 1.000 |            | 3683893.31 |       | A    | 0.4 |
| 3 | <input type="checkbox"/> | 1.000 |            | 3606871.79 |       | A    | 0.8 |
| 4 | <input type="checkbox"/> | 1.000 |            | 3439113.35 |       | A    | 1.3 |
| 5 | <input type="checkbox"/> | 1.000 |            | 3341382.90 |       | A    | 0.7 |
| 6 | <input type="checkbox"/> | 1.000 |            | 3261437.87 |       | A    | 1.1 |
| 7 | <input type="checkbox"/> | 1.000 |            | 3217188.77 |       | A    | 1.1 |
| 8 | <input type="checkbox"/> | 1.000 |            | 3194327.97 |       | A    | 1.0 |

**103 Rh (ISTD) [No Gas]**

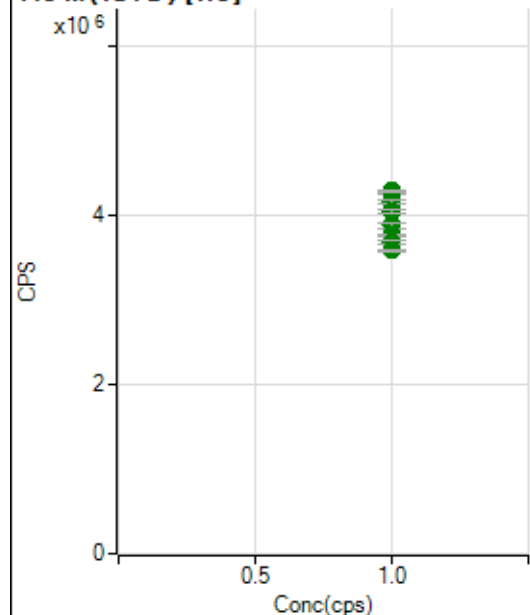
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS         | Ratio | Det. | RSD |
|---|--------------------------|-------|------------|-------------|-------|------|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 10646171.30 |       | A    | 0.7 |
| 2 | <input type="checkbox"/> | 1.000 |            | 10733247.06 |       | A    | 1.2 |
| 3 | <input type="checkbox"/> | 1.000 |            | 10571932.55 |       | A    | 1.4 |
| 4 | <input type="checkbox"/> | 1.000 |            | 10187662.14 |       | A    | 1.3 |
| 5 | <input type="checkbox"/> | 1.000 |            | 9766839.23  |       | A    | 1.5 |
| 6 | <input type="checkbox"/> | 1.000 |            | 9392423.20  |       | A    | 1.1 |
| 7 | <input type="checkbox"/> | 1.000 |            | 9023077.57  |       | A    | 1.1 |
| 8 | <input type="checkbox"/> | 1.000 |            | 8258472.31  |       | A    | 1.2 |

**103 Rh (ISTD) [He]**

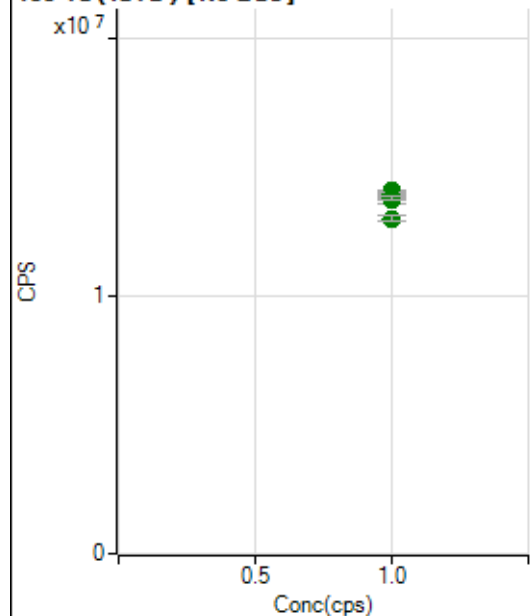
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS        | Ratio | Det. | RSD |
|---|--------------------------|-------|------------|------------|-------|------|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 6479374.21 |       | A    | 0.4 |
| 2 | <input type="checkbox"/> | 1.000 |            | 6464829.49 |       | A    | 0.7 |
| 3 | <input type="checkbox"/> | 1.000 |            | 6365466.15 |       | A    | 0.6 |
| 4 | <input type="checkbox"/> | 1.000 |            | 6108157.20 |       | A    | 1.7 |
| 5 | <input type="checkbox"/> | 1.000 |            | 5909863.52 |       | A    | 0.2 |
| 6 | <input type="checkbox"/> | 1.000 |            | 5664765.89 |       | A    | 0.6 |
| 7 | <input type="checkbox"/> | 1.000 |            | 5567531.31 |       | A    | 0.7 |
| 8 | <input type="checkbox"/> | 1.000 |            | 5086652.18 |       | A    | 0.2 |

**115 In (ISTD) [No Gas]**

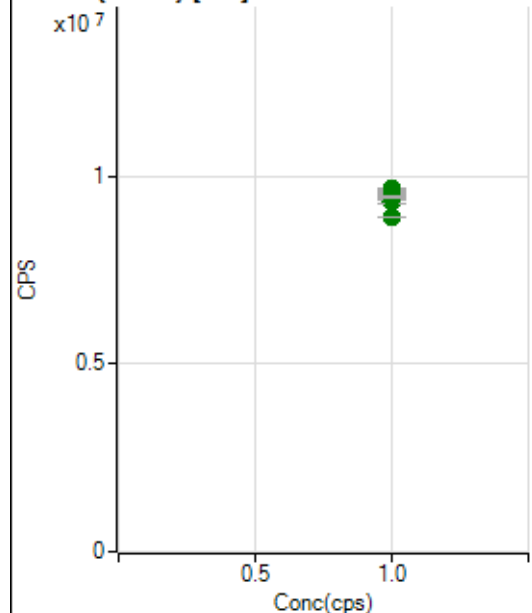
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS         | Ratio | Det. | RSD |
|---|--------------------------|-------|------------|-------------|-------|------|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 11380146.53 |       | A    | 0.6 |
| 2 | <input type="checkbox"/> | 1.000 |            | 11329687.32 |       | A    | 0.7 |
| 3 | <input type="checkbox"/> | 1.000 |            | 11265333.30 |       | A    | 1.8 |
| 4 | <input type="checkbox"/> | 1.000 |            | 10868529.03 |       | A    | 1.8 |
| 5 | <input type="checkbox"/> | 1.000 |            | 10492354.67 |       | A    | 0.7 |
| 6 | <input type="checkbox"/> | 1.000 |            | 10175002.67 |       | A    | 1.1 |
| 7 | <input type="checkbox"/> | 1.000 |            | 9939330.96  |       | A    | 0.4 |
| 8 | <input type="checkbox"/> | 1.000 |            | 9261623.59  |       | A    | 1.7 |

**115 In (ISTD) [He]**

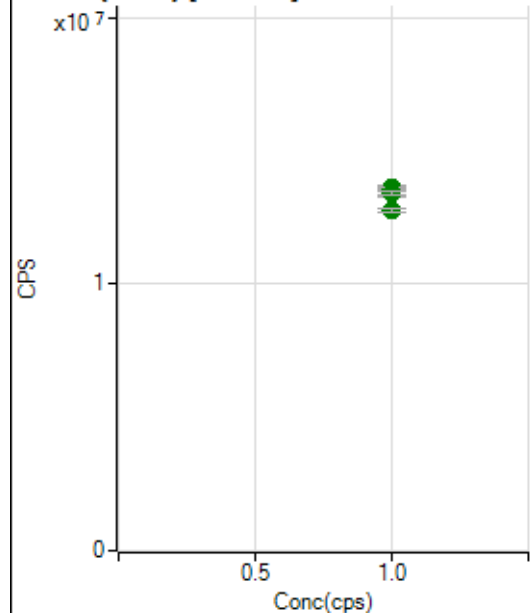
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS        | Ratio | Det. | RSD |
|---|--------------------------|-------|------------|------------|-------|------|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 4259416.94 |       | A    | 0.6 |
| 2 | <input type="checkbox"/> | 1.000 |            | 4292484.76 |       | A    | 0.7 |
| 3 | <input type="checkbox"/> | 1.000 |            | 4169514.11 |       | A    | 1.2 |
| 4 | <input type="checkbox"/> | 1.000 |            | 4041978.91 |       | A    | 1.2 |
| 5 | <input type="checkbox"/> | 1.000 |            | 3880378.30 |       | A    | 1.5 |
| 6 | <input type="checkbox"/> | 1.000 |            | 3771233.98 |       | A    | 0.4 |
| 7 | <input type="checkbox"/> | 1.000 |            | 3677807.30 |       | A    | 1.1 |
| 8 | <input type="checkbox"/> | 1.000 |            | 3586211.70 |       | A    | 0.3 |

**159 Tb (ISTD) [No Gas]**

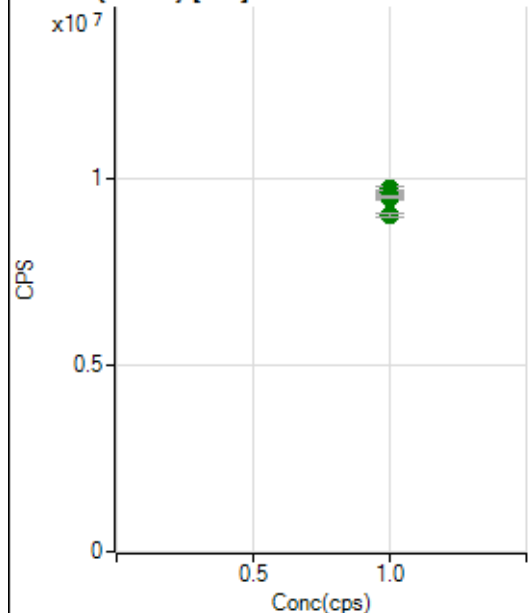
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS         | Ratio | Det. | RSD |
|---|--------------------------|-------|------------|-------------|-------|------|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 13894184.79 |       | A    | 0.5 |
| 2 | <input type="checkbox"/> | 1.000 |            | 14086918.40 |       | A    | 0.6 |
| 3 | <input type="checkbox"/> | 1.000 |            | 13945765.07 |       | A    | 1.0 |
| 4 | <input type="checkbox"/> | 1.000 |            | 13829817.43 |       | A    | 0.5 |
| 5 | <input type="checkbox"/> | 1.000 |            | 13714532.99 |       | A    | 1.3 |
| 6 | <input type="checkbox"/> | 1.000 |            | 13754039.52 |       | A    | 0.7 |
| 7 | <input type="checkbox"/> | 1.000 |            | 13797739.93 |       | A    | 1.3 |
| 8 | <input type="checkbox"/> | 1.000 |            | 13005575.92 |       | A    | 1.8 |

**159 Tb (ISTD) [He]**

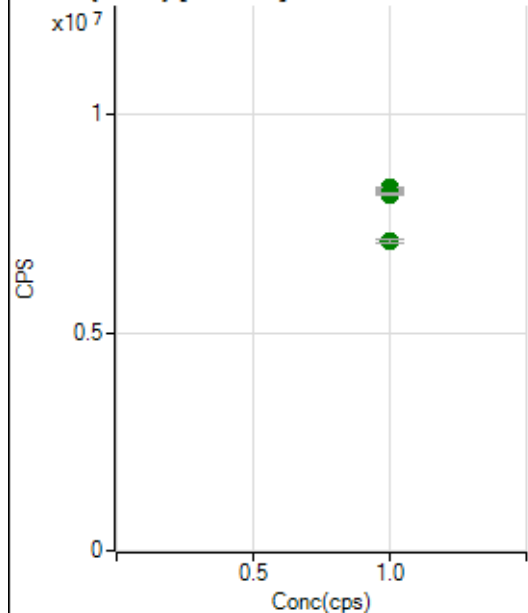
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS        | Ratio | Det. | RSD |
|---|--------------------------|-------|------------|------------|-------|------|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 9604679.44 |       | A    | 1.1 |
| 2 | <input type="checkbox"/> | 1.000 |            | 9661592.56 |       | A    | 0.2 |
| 3 | <input type="checkbox"/> | 1.000 |            | 9593169.16 |       | A    | 0.3 |
| 4 | <input type="checkbox"/> | 1.000 |            | 9517372.71 |       | A    | 0.6 |
| 5 | <input type="checkbox"/> | 1.000 |            | 9471588.05 |       | A    | 0.3 |
| 6 | <input type="checkbox"/> | 1.000 |            | 9331060.83 |       | A    | 0.9 |
| 7 | <input type="checkbox"/> | 1.000 |            | 9438634.44 |       | A    | 0.7 |
| 8 | <input type="checkbox"/> | 1.000 |            | 8893901.12 |       | A    | 0.2 |

**165 Ho (ISTD) [No Gas]**

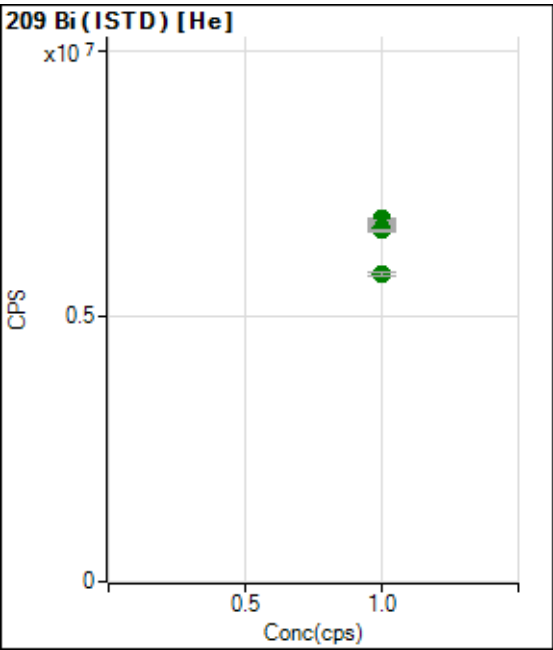
|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS         | Ratio | Det. | RSD |
|---|--------------------------|-------|------------|-------------|-------|------|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 13557561.19 |       | A    | 0.9 |
| 2 | <input type="checkbox"/> | 1.000 |            | 13589402.58 |       | A    | 0.7 |
| 3 | <input type="checkbox"/> | 1.000 |            | 13599169.10 |       | A    | 1.2 |
| 4 | <input type="checkbox"/> | 1.000 |            | 13553729.24 |       | A    | 1.5 |
| 5 | <input type="checkbox"/> | 1.000 |            | 13525554.38 |       | A    | 1.1 |
| 6 | <input type="checkbox"/> | 1.000 |            | 13382162.30 |       | A    | 1.5 |
| 7 | <input type="checkbox"/> | 1.000 |            | 13407395.36 |       | A    | 0.7 |
| 8 | <input type="checkbox"/> | 1.000 |            | 12767908.01 |       | A    | 1.1 |

**165 Ho (ISTD) [He]**

|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS        | Ratio | Det. | RSD |
|---|--------------------------|-------|------------|------------|-------|------|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 9646036.66 |       | A    | 1.1 |
| 2 | <input type="checkbox"/> | 1.000 |            | 9703219.23 |       | A    | 0.2 |
| 3 | <input type="checkbox"/> | 1.000 |            | 9741688.40 |       | A    | 1.3 |
| 4 | <input type="checkbox"/> | 1.000 |            | 9640718.12 |       | A    | 1.0 |
| 5 | <input type="checkbox"/> | 1.000 |            | 9543109.23 |       | A    | 1.3 |
| 6 | <input type="checkbox"/> | 1.000 |            | 9477647.01 |       | A    | 0.8 |
| 7 | <input type="checkbox"/> | 1.000 |            | 9531493.54 |       | A    | 0.3 |
| 8 | <input type="checkbox"/> | 1.000 |            | 9039356.74 |       | A    | 0.6 |

**209 Bi (ISTD) [No Gas]**

|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS        | Ratio | Det. | RSD |
|---|--------------------------|-------|------------|------------|-------|------|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 8169688.07 |       | A    | 0.5 |
| 2 | <input type="checkbox"/> | 1.000 |            | 8257542.52 |       | A    | 1.3 |
| 3 | <input type="checkbox"/> | 1.000 |            | 8282523.83 |       | A    | 0.9 |
| 4 | <input type="checkbox"/> | 1.000 |            | 8274282.10 |       | A    | 1.3 |
| 5 | <input type="checkbox"/> | 1.000 |            | 8247733.07 |       | A    | 0.5 |
| 6 | <input type="checkbox"/> | 1.000 |            | 8316419.60 |       | A    | 0.5 |
| 7 | <input type="checkbox"/> | 1.000 |            | 8187725.16 |       | A    | 0.3 |
| 8 | <input type="checkbox"/> | 1.000 |            | 7101283.23 |       | A    | 0.9 |



|   | Rj<br>ct                 | Conc. | Calc Conc. | CPS        | Ratio | Det<br>. | RSD |
|---|--------------------------|-------|------------|------------|-------|----------|-----|
| 1 | <input type="checkbox"/> | 1.000 |            | 6819891.08 |       | A        | 1.4 |
| 2 | <input type="checkbox"/> | 1.000 |            | 6846218.23 |       | A        | 0.1 |
| 3 | <input type="checkbox"/> | 1.000 |            | 6826204.07 |       | A        | 0.4 |
| 4 | <input type="checkbox"/> | 1.000 |            | 6798850.25 |       | A        | 0.6 |
| 5 | <input type="checkbox"/> | 1.000 |            | 6683954.00 |       | A        | 0.7 |
| 6 | <input type="checkbox"/> | 1.000 |            | 6694602.88 |       | A        | 1.1 |
| 7 | <input type="checkbox"/> | 1.000 |            | 6635004.21 |       | A        | 0.4 |
| 8 | <input type="checkbox"/> | 1.000 |            | 5799485.82 |       | A        | 1.5 |

US EPA Tune Check Report

Operator Name                   Jaswal

Acq/Data Batch                D:\Agilent\ICPMH\1\DATA\IP7122124MS-1.b

Acq. Date-Time               2024-12-21 15:35:47

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    |              | 6725   | 67253.30   |                            |             | 0.578  | 5.000           |
| 24   |              | 220790 | 2207899.83 |                            |             | 1.115  | 5.000           |
| 25   |              | 27508  | 275084.46  |                            |             | 0.452  | 5.000           |
| 26   |              | 31511  | 315114.35  |                            |             | 0.282  | 5.000           |
| 59   |              | 88106  | 881055.74  |                            |             | 0.393  | 5.000           |
| 113  |              | 11343  | 113428.71  |                            |             | 0.728  | 5.000           |
| 115  |              | 147076 | 1470764.46 |                            |             | 0.439  | 5.000           |
| 206  |              | 28753  | 287529.77  |                            |             | 0.824  | 5.000           |
| 207  |              | 25069  | 250688.22  |                            |             | 0.543  | 5.000           |
| 208  |              | 59750  | 597501.24  |                            |             | 0.352  | 5.000           |
| 220  |              | 0      | 3.20       |                            |             | 35.972 |                 |

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

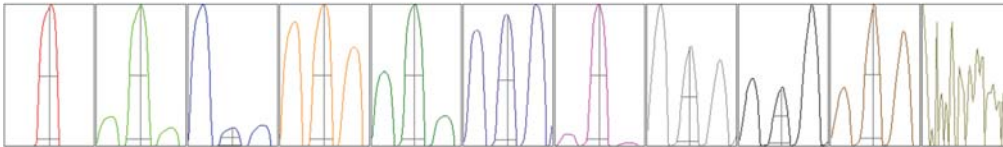
| Mass | Rep#1 Count | Rep#2 Count | Rep#3 Count | Rep#4 Count | Rep#5 Count |
|------|-------------|-------------|-------------|-------------|-------------|
| 9    | 6667        | 6711        | 6727        | 6761        | 6760        |
| 24   | 219710      | 218589      | 218762      | 223549      | 223340      |
| 25   | 27463       | 27566       | 27323       | 27534       | 27656       |
| 26   | 31458       | 31590       | 31412       | 31478       | 31618       |
| 59   | 88490       | 88098       | 87891       | 87655       | 88394       |
| 113  | 11429       | 11406       | 11340       | 11322       | 11218       |
| 115  | 147758      | 147782      | 146739      | 146407      | 146696      |
| 206  | 29007       | 28954       | 28458       | 28772       | 28574       |
| 207  | 25263       | 25144       | 24915       | 24997       | 25025       |
| 208  | 59976       | 59748       | 59422       | 59724       | 59880       |

# US EPA Tune Check Report

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

Integration Time [sec] 0.1

## Resolution/Axis



| Mass | Peak Height | Axis   | Axis (Required) | Axis (Flag) |
|------|-------------|--------|-----------------|-------------|
| 9    | 11773.92    | 9.05   | 8.90 - 9.10     |             |
| 24   | 372358.09   | 24.00  | 23.90 - 24.10   |             |
| 25   | 46887.08    | 25.00  | 24.90 - 25.10   |             |
| 26   | 53403.84    | 26.00  | 25.90 - 26.10   |             |
| 59   | 151466.27   | 58.95  | 58.90 - 59.10   |             |
| 113  | 22172.28    | 113.00 | 112.90 - 113.10 |             |
| 115  | 286165.85   | 115.00 | 114.90 - 115.10 |             |
| 206  | 59374.54    | 205.95 | 205.90 - 206.10 |             |
| 207  | 51890.18    | 206.95 | 206.90 - 207.10 |             |
| 208  | 124584.17   | 207.95 | 207.90 - 208.10 |             |
| 220  |             |        | -               |             |

| Mass | W-50% | W-5%  | W-5% (Required) | W-5% (Flag) |
|------|-------|-------|-----------------|-------------|
| 9    | 0.60  | 0.738 | 0.900           |             |
| 24   | 0.63  | 0.816 | 0.900           |             |
| 25   | 0.62  | 0.752 | 0.900           |             |
| 26   | 0.62  | 0.780 | 0.900           |             |
| 59   | 0.60  | 0.782 | 0.900           |             |
| 113  | 0.52  | 0.731 | 0.900           |             |
| 115  | 0.52  | 0.728 | 0.900           |             |
| 206  | 0.49  | 0.733 | 0.900           |             |
| 207  | 0.49  | 0.732 | 0.900           |             |
| 208  | 0.50  | 0.746 | 0.900           |             |
| 220  |       |       |                 |             |

Integration Time [sec] 0.1

Acquisition Time [sec] 256.770000000002

Y Axis Linear

## Tune Parameters

### Plasma Parameters

Plasma Mode --- Nebulizer Gas 0.82 L/min Dilution Gas 0.40 L/min

US EPA Tune Check Report

|              |        |                |          |               |            |
|--------------|--------|----------------|----------|---------------|------------|
| 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  | 0.0 V    | Omega Lens    | 8.0 V | Deflect    | 16.4 V |
| Extract 2  | -130.0 V | Cell Entrance | -30 V | Plate Bias | -35 V  |
| Omega Bias | -65 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      | 190 V  |                       |       |

QP Parameters

|             |     |             |        |         |        |
|-------------|-----|-------------|--------|---------|--------|
| Mass Gain   | 136 | Axis Gain   | 0.9973 | QP Bias | -3.0 V |
| Mass Offset | 130 | Axis Offset | 0.15   |         |        |

Hardware Settings

Torch

|         |        |         |        |
|---------|--------|---------|--------|
| Torch H | 0.6 mm | Torch V | 0.3 mm |
|---------|--------|---------|--------|

EM

|               |        |           |        |          |        |
|---------------|--------|-----------|--------|----------|--------|
| Discriminator | 4.8 mV | Analog HV | 2237 V | Pulse HV | 1013 V |
|---------------|--------|-----------|--------|----------|--------|

[He]

Sensitivity

| Mass | Conc. [ug/l] | Count | CPS       | Resp (Required) [cps/ug/l] | Resp (Flag) | RSD%  | RSD% (Required) |
|------|--------------|-------|-----------|----------------------------|-------------|-------|-----------------|
| 59   |              | 29700 | 296996.67 |                            |             | 0.429 |                 |
| 89   |              | 52669 | 526693.36 |                            |             | 0.654 |                 |
| 205  |              | 31181 | 311809.14 |                            |             | 0.510 |                 |

| Mass | RSD% (Flag) |
|------|-------------|
| 59   |             |
| 89   |             |
| 205  |             |

| Mass | Rep#1 Count | Rep#2 Count | Rep#3 Count | Rep#4 Count | Rep#5 Count |
|------|-------------|-------------|-------------|-------------|-------------|
| 59   | 29879       | 29756       | 29642       | 29538       | 29683       |
| 89   | 53155       | 52884       | 52297       | 52494       | 52516       |
| 205  | 31446       | 31176       | 31149       | 31022       | 31112       |

Integration Time [sec] 0.1

Tune Parameters

Plasma Parameters

|              |        |                |            |               |            |
|--------------|--------|----------------|------------|---------------|------------|
| Plasma Mode  | ---    | Nebulizer Gas  | 0.82 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 | 0.0 V | Omega Lens | 9.0 V | Deflect | 3.8 V |
|-----------|-------|------------|-------|---------|-------|

# US EPA Tune Check Report

|                   |            |               |         |                       |         |
|-------------------|------------|---------------|---------|-----------------------|---------|
| Extract 2         | -140.0 V   | Cell Entrance | -40 V   | Plate Bias            | -60 V   |
| Omega Bias        | -70 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         | 136        | Axis Gain     | 0.9973  | QP Bias               | -13.0 V |
| Mass Offset       | 130        | Axis Offset   | 0.15    |                       |         |
| Hardware Settings |            |               |         |                       |         |
| Torch             |            |               |         |                       |         |
| Torch H           | 0.6 mm     | Torch V       | 0.3 mm  |                       |         |
| EM                |            |               |         |                       |         |
| Discriminator     | 4.8 mV     | Analog HV     | 2237 V  | Pulse HV              | 1013 V  |

1

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S0 Instrumnet Name : P7  
Client Sample ID : S0 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:08:12 DataFile Name : 004CALB.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 0.01    | -0.01   | 0.00    | 0.00       | N/A     | ppb   |
| 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    | 0.00    | -0.02   | 0.00       | N/A     | ppb   |
| Manganese  | 55-2  | 0.01    | -0.01   | 0.00    | 0.00       | N/A     | ppb   |
| Molybdenum | 94-1  | -0.01   | 0.01    | 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  | 0.01    | -0.02   | 0.00    | 0.00       | N/A     | ppb   |
| Phosphorus | 31-2  | -14.88  | -17.99  | -20.54  | -17.80     |         | ppb   |
| Potassium  | 39-2  | -0.27   | 1.07    | -0.80   | 0.00       | N/A     | ppb   |
| Rhodium    | 103-1 |         |         |         | 100        |         | %     |
| Rhodium    | 103-2 |         |         |         | 100        |         | %     |
| Scandium   | 45-1  |         |         |         | 100        |         | %     |
| Scandium   | 45-2  |         |         |         | 100        |         | %     |
| Selenium   | 82-1  | -0.07   | -0.09   | 0.15    | 0.00       | N/A     | ppb   |
| Selenium   | 77-2  | -0.05   | 0.10    | -0.05   | 0.00       | N/A     | ppb   |
| Selenium   | 78-2  | 0.49    | 0.04    | -0.53   | 0.00       | N/A     | ppb   |
| Silicon    | 28-1  | 0.13    | 0.25    | -0.39   | 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  | 0.03    | -0.32   | 0.29    | 0.00       | N/A     | ppb   |
| Strontium  | 86-1  | -0.22   | 0.46    | -0.24   | 0.00       | N/A     | ppb   |
| Strontium  | 88-1  | 0.01    | 0.01    | -0.02   | 0.00       | N/A     | ppb   |
| Sulfur     | 34-1  | -52.04  | 20.18   | -57.81  | -29.89     |         | 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 | 0.00    | 0.01    | 0.00    | 0.00       | N/A     | ppb   |
| Titanium   | 47-1  | -0.01   | -0.01   | 0.02    | 0.00       | N/A     | ppb   |

LB Number :LB134060

Operator :Jaswal

Lab Sample ID :S00

Instrumnet Name :P7

Client Sample ID :S0

Dilution Factor :1

Date & Time Acquired :2024-12-21 16:08:12

DataFile Name :004CALB.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  | 0.00    | -0.02   | 0.02    | 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   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

S02

Instrumnet Name :

P7

Client Sample ID :

S02

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 16:14:49

DataFile Name :

006CALS.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 20.62   | 20.12   | 20.95   | 20.56      | 2.04    | ppb   |
| Antimony   | 121-1 | 2.20    | 2.20    | 2.20    | 2.20       | 0.06    | ppb   |
| Arsenic    | 75-2  | 1.21    | 1.24    | 1.25    | 1.23       | 1.42    | ppb   |
| Barium     | 135-1 | 10.61   | 10.46   | 10.77   | 10.61      | 1.44    | ppb   |
| Barium     | 137-1 | 10.62   | 10.69   | 10.80   | 10.70      | 0.85    | ppb   |
| Beryllium  | 9-1   | 1.18    | 1.21    | 1.18    | 1.19       | 1.39    | ppb   |
| Bismuth    | 209-1 |         |         |         | 101        |         | %     |
| Bismuth    | 209-2 |         |         |         | 100        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | 1.14    | 1.11    | 1.03    | 1.09       | 5.12    | ppb   |
| Cadmium    | 106-1 | 2.00    | 0.77    | 1.98    | 1.58       | 44.46   | ppb   |
| Cadmium    | 111-1 | 1.20    | 1.17    | 1.19    | 1.19       | 0.98    | ppb   |
| Calcium    | 43-1  | 564.77  | 558.77  | 577.83  | 567.12     | 1.72    | ppb   |
| Calcium    | 44-1  | 558.29  | 559.94  | 568.44  | 562.22     | 0.97    | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | 2.23    | 2.17    | 2.25    | 2.21       | 1.92    | ppb   |
| Cobalt     | 59-2  | 1.17    | 1.16    | 1.17    | 1.17       | 0.75    | ppb   |
| Copper     | 63-2  | 2.10    | 2.06    | 2.08    | 2.08       | 0.97    | 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 |         |         |         | 100        |         | %     |
| Indium     | 115-2 |         |         |         | 101        |         | %     |
| Iron       | 56-2  | 57.24   | 57.15   | 57.64   | 57.34      | 0.45    | ppb   |
| Iron       | 57-2  | 60.64   | 57.27   | 60.66   | 59.53      | 3.28    | ppb   |
| Iron       | 54-2  | 58.23   | 59.99   | 59.83   | 59.35      | 1.64    | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S02 Instrumnet Name : P7  
Client Sample ID : S02 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:14:49 DataFile Name : 006CAL.S.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 0.99    | 1.01    | 0.97    | 0.99       | 2.27    | ppb   |
| Lead       | 207-1 | 0.97    | 0.98    | 0.97    | 0.97       | 0.84    | ppb   |
| Lead       | 208-1 | 0.95    | 0.98    | 0.97    | 0.97       | 1.43    | ppb   |
| Lithium    | 6-1   |         |         |         | 102        |         | %     |
| Magnesium  | 24-2  | 530.01  | 526.12  | 533.98  | 530.04     | 0.74    | ppb   |
| Manganese  | 55-2  | 1.15    | 1.09    | 1.07    | 1.10       | 3.64    | ppb   |
| Molybdenum | 94-1  | 6.22    | 6.11    | 6.09    | 6.14       | 1.14    | ppb   |
| Molybdenum | 95-1  | 5.32    | 5.31    | 5.32    | 5.32       | 0.12    | ppb   |
| Molybdenum | 96-1  | 5.45    | 5.44    | 5.29    | 5.39       | 1.64    | ppb   |
| Molybdenum | 97-1  | 5.20    | 5.22    | 5.14    | 5.19       | 0.87    | ppb   |
| Molybdenum | 98-1  | 5.24    | 5.24    | 5.28    | 5.25       | 0.42    | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | 1.22    | 1.13    | 1.08    | 1.14       | 6.36    | ppb   |
| Phosphorus | 31-2  | 16.58   | 16.30   | 20.52   | 17.80      | 13.25   | ppb   |
| Potassium  | 39-2  | 553.41  | 551.23  | 562.97  | 555.87     | 1.12    | ppb   |
| Rhodium    | 103-1 |         |         |         | 101        |         | %     |
| Rhodium    | 103-2 |         |         |         | 100        |         | %     |
| Scandium   | 45-1  |         |         |         | 101        |         | %     |
| Scandium   | 45-2  |         |         |         | 100        |         | %     |
| Selenium   | 82-1  | 6.26    | 5.51    | 5.44    | 5.74       | 7.89    | ppb   |
| Selenium   | 77-2  | 6.19    | 5.88    | 5.31    | 5.79       | 7.72    | ppb   |
| Selenium   | 78-2  | 6.36    | 6.02    | 7.36    | 6.58       | 10.63   | ppb   |
| Silicon    | 28-1  | 1.35    | 1.82    | 2.42    | 1.87       | 28.87   | ppb   |
| Silver     | 107-1 | 1.12    | 1.11    | 1.10    | 1.11       | 1.23    | ppb   |
| Silver     | 109-1 | 1.11    | 1.09    | 1.12    | 1.11       | 1.32    | ppb   |
| Sodium     | 23-2  | 509.02  | 511.64  | 516.39  | 512.35     | 0.73    | ppb   |
| Strontium  | 86-1  | 27.07   | 28.19   | 26.78   | 27.35      | 2.72    | ppb   |
| Strontium  | 88-1  | 26.87   | 26.47   | 26.71   | 26.68      | 0.75    | ppb   |
| Sulfur     | 34-1  | -37.81  | 21.24   | 106.24  | 29.89      | 242.28  | ppb   |
| Terbium    | 159-1 |         |         |         | 101        |         | %     |
| Terbium    | 159-2 |         |         |         | 101        |         | %     |
| Thallium   | 203-1 | 0.97    | 0.97    | 1.00    | 0.98       | 1.39    | ppb   |
| Thallium   | 205-1 | 0.96    | 0.97    | 0.96    | 0.96       | 0.98    | ppb   |
| Tin        | 118-1 | 5.60    | 5.65    | 5.53    | 5.59       | 1.01    | ppb   |
| Titanium   | 47-1  | 5.33    | 5.42    | 5.33    | 5.36       | 1.04    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

S02

Instrumnet Name :

P7

Client Sample ID :

S02

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 16:14:49

DataFile Name :

006CALS.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.90    | 0.93    | 0.92    | 0.92       | 2.02    | ppb   |
| Vanadium  | 51-2  | 5.58    | 5.46    | 5.55    | 5.53       | 1.12    | ppb   |
| Yttrium   | 89-1  |         |         |         | 100        |         | %     |
| Yttrium   | 89-2  |         |         |         | 100        |         | %     |
| Zinc      | 66-2  | 5.58    | 5.20    | 5.56    | 5.45       | 3.91    | ppb   |
| Zirconium | 90-1  | 1.05    | 1.04    | 1.05    | 1.05       | 0.87    | ppb   |
| Zirconium | 91-1  | 1.03    | 1.08    | 1.02    | 1.04       | 3.04    | ppb   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S03 Instrumnet Name : P7  
Client Sample ID : S03 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:18:06 DataFile Name : 007CALS.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 962.41  | 960.83  | 945.39  | 956.21     | 0.98    | ppb   |
| Antimony   | 121-1 | 50.44   | 51.20   | 50.83   | 50.82      | 0.74    | ppb   |
| Arsenic    | 75-2  | 52.92   | 51.78   | 51.50   | 52.07      | 1.45    | ppb   |
| Barium     | 135-1 | 247.86  | 253.91  | 249.32  | 250.37     | 1.26    | ppb   |
| Barium     | 137-1 | 248.31  | 253.21  | 250.59  | 250.70     | 0.98    | ppb   |
| Beryllium  | 9-1   | 54.64   | 54.76   | 56.19   | 55.20      | 1.56    | ppb   |
| Bismuth    | 209-1 |         |         |         | 101        |         | %     |
| Bismuth    | 209-2 |         |         |         | 100        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | 56.68   | 57.42   | 57.11   | 57.07      | 0.65    | ppb   |
| Cadmium    | 106-1 | 57.18   | 57.03   | 55.17   | 56.46      | 1.98    | ppb   |
| Cadmium    | 111-1 | 52.71   | 53.04   | 52.52   | 52.76      | 0.50    | ppb   |
| Calcium    | 43-1  | 5249.27 | 5281.18 | 5298.69 | 5276.38    | 0.47    | ppb   |
| Calcium    | 44-1  | 5056.47 | 5039.31 | 5183.42 | 5093.06    | 1.55    | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | 49.85   | 50.46   | 49.84   | 50.05      | 0.71    | ppb   |
| Cobalt     | 59-2  | 49.98   | 50.48   | 49.86   | 50.11      | 0.65    | ppb   |
| Copper     | 63-2  | 520.23  | 520.99  | 505.88  | 515.70     | 1.65    | 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 |         |         |         | 99         |         | %     |
| Indium     | 115-2 |         |         |         | 98         |         | %     |
| Iron       | 56-2  | 2616.99 | 2613.06 | 2597.47 | 2609.17    | 0.40    | ppb   |
| Iron       | 57-2  | 2596.63 | 2605.82 | 2594.24 | 2598.90    | 0.24    | ppb   |
| Iron       | 54-2  | 2654.23 | 2681.67 | 2643.41 | 2659.77    | 0.74    | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S03 Instrumnet Name : P7  
Client Sample ID : S03 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:18:06 DataFile Name : 007CAL.S.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 242.95  | 248.69  | 248.79  | 246.81     | 1.35    | ppb   |
| Lead       | 207-1 | 246.52  | 247.49  | 250.67  | 248.23     | 0.87    | ppb   |
| Lead       | 208-1 | 246.15  | 247.36  | 251.22  | 248.24     | 1.07    | ppb   |
| Lithium    | 6-1   |         |         |         | 104        |         | %     |
| Magnesium  | 24-2  | 4781.20 | 4773.09 | 4720.06 | 4758.11    | 0.70    | ppb   |
| Manganese  | 55-2  | 500.56  | 499.16  | 495.92  | 498.55     | 0.48    | ppb   |
| Molybdenum | 94-1  | 494.34  | 502.38  | 502.77  | 499.83     | 0.95    | ppb   |
| Molybdenum | 95-1  | 493.37  | 508.55  | 503.63  | 501.85     | 1.54    | ppb   |
| Molybdenum | 96-1  | 496.00  | 503.26  | 494.36  | 497.87     | 0.95    | ppb   |
| Molybdenum | 97-1  | 492.66  | 502.39  | 500.62  | 498.56     | 1.04    | ppb   |
| Molybdenum | 98-1  | 491.24  | 501.81  | 498.76  | 497.27     | 1.09    | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | 50.77   | 50.73   | 50.82   | 50.77      | 0.09    | ppb   |
| Phosphorus | 31-2  | 1040.02 | 1025.55 | 1043.73 | 1036.43    | 0.93    | ppb   |
| Potassium  | 39-2  | 2529.02 | 2544.24 | 2482.34 | 2518.53    | 1.28    | ppb   |
| Rhodium    | 103-1 |         |         |         | 99         |         | %     |
| Rhodium    | 103-2 |         |         |         | 98         |         | %     |
| Scandium   | 45-1  |         |         |         | 99         |         | %     |
| Scandium   | 45-2  |         |         |         | 99         |         | %     |
| Selenium   | 82-1  | 50.54   | 54.20   | 53.22   | 52.65      | 3.60    | ppb   |
| Selenium   | 77-2  | 54.93   | 50.99   | 56.86   | 54.26      | 5.51    | ppb   |
| Selenium   | 78-2  | 53.64   | 53.18   | 54.26   | 53.70      | 1.01    | ppb   |
| Silicon    | 28-1  | 67.67   | 67.30   | 65.78   | 66.92      | 1.50    | ppb   |
| Silver     | 107-1 | 53.74   | 55.04   | 53.84   | 54.21      | 1.33    | ppb   |
| Silver     | 109-1 | 54.15   | 54.99   | 54.18   | 54.44      | 0.87    | ppb   |
| Sodium     | 23-2  | 4943.54 | 4950.69 | 4884.38 | 4926.20    | 0.74    | ppb   |
| Strontium  | 86-1  | 1187.71 | 1240.19 | 1229.74 | 1219.21    | 2.28    | ppb   |
| Strontium  | 88-1  | 1256.17 | 1263.00 | 1253.67 | 1257.61    | 0.38    | ppb   |
| Sulfur     | 34-1  | 999.18  | 1071.45 | 1058.01 | 1042.88    | 3.69    | ppb   |
| Terbium    | 159-1 |         |         |         | 100        |         | %     |
| Terbium    | 159-2 |         |         |         | 100        |         | %     |
| Thallium   | 203-1 | 45.36   | 45.84   | 47.19   | 46.13      | 2.06    | ppb   |
| Thallium   | 205-1 | 45.30   | 45.57   | 46.15   | 45.67      | 0.94    | ppb   |
| Tin        | 118-1 | 51.27   | 52.41   | 51.34   | 51.67      | 1.24    | ppb   |
| Titanium   | 47-1  | 503.20  | 506.01  | 504.48  | 504.57     | 0.28    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

S03

Instrumnet Name :

P7

Client Sample ID :

S03

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 16:18:06

DataFile Name :

007CALS.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 46.22   | 42.91   | 47.21   | 45.45      | 4.96    | ppb   |
| Vanadium  | 51-2  | 50.23   | 49.68   | 48.79   | 49.57      | 1.47    | ppb   |
| Yttrium   | 89-1  |         |         |         | 99         |         | %     |
| Yttrium   | 89-2  |         |         |         | 98         |         | %     |
| Zinc      | 66-2  | 497.18  | 497.34  | 489.04  | 494.52     | 0.96    | ppb   |
| Zirconium | 90-1  | 47.49   | 49.30   | 49.02   | 48.61      | 2.00    | ppb   |
| Zirconium | 91-1  | 47.96   | 49.58   | 49.26   | 48.93      | 1.76    | ppb   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :S04Instrumnet Name :P7

Client Sample ID :S04Dilution Factor :1

Date & Time Acquired :2024-12-21 16:21:10DataFile Name :008CAL.S.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Aluminium  | 27-2  | 2195.01  | 2231.35  | 2229.73  | 2218.70    | 0.93    | ppb   |
| Antimony   | 121-1 | 114.89   | 116.54   | 115.96   | 115.80     | 0.72    | ppb   |
| Arsenic    | 75-2  | 119.03   | 120.39   | 120.19   | 119.87     | 0.61    | ppb   |
| Barium     | 135-1 | 599.22   | 600.92   | 598.02   | 599.39     | 0.24    | ppb   |
| Barium     | 137-1 | 600.69   | 606.96   | 597.15   | 601.60     | 0.83    | ppb   |
| Beryllium  | 9-1   | 123.47   | 122.41   | 122.36   | 122.75     | 0.51    | ppb   |
| Bismuth    | 209-1 |          |          |          | 101        |         | %     |
| Bismuth    | 209-2 |          |          |          | 100        |         | %     |
| Bromine    | 81-1  |          |          |          |            |         | cps   |
| Bromine    | 81-2  |          |          |          |            |         | cps   |
| Cadmium    | 108-1 | 126.68   | 126.93   | 127.65   | 127.09     | 0.40    | ppb   |
| Cadmium    | 106-1 | 126.82   | 127.90   | 124.79   | 126.50     | 1.25    | ppb   |
| Cadmium    | 111-1 | 120.45   | 122.13   | 121.07   | 121.22     | 0.70    | ppb   |
| Calcium    | 43-1  | 11998.83 | 12194.14 | 12194.01 | 12128.99   | 0.93    | ppb   |
| Calcium    | 44-1  | 11503.24 | 11707.62 | 11742.42 | 11651.09   | 1.11    | ppb   |
| Carbon     | 12-1  |          |          |          |            |         | cps   |
| Carbon     | 12-2  |          |          |          |            |         | cps   |
| Chlorine   | 35-1  |          |          |          |            |         | cps   |
| Chlorine   | 35-2  |          |          |          |            |         | cps   |
| Chromium   | 52-2  | 114.19   | 116.48   | 115.60   | 115.42     | 1.00    | ppb   |
| Cobalt     | 59-2  | 114.16   | 116.00   | 115.26   | 115.14     | 0.81    | ppb   |
| Copper     | 63-2  | 1175.87  | 1215.41  | 1194.28  | 1195.18    | 1.66    | 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 |          |          |          | 100        |         | %     |
| Holmium    | 165-2 |          |          |          | 100        |         | %     |
| Indium     | 115-1 |          |          |          | 96         |         | %     |
| Indium     | 115-2 |          |          |          | 95         |         | %     |
| Iron       | 56-2  | 5979.07  | 6056.86  | 6046.58  | 6027.50    | 0.70    | ppb   |
| Iron       | 57-2  | 5965.50  | 6099.77  | 6026.49  | 6030.59    | 1.11    | ppb   |
| Iron       | 54-2  | 6041.02  | 6187.50  | 6126.00  | 6118.17    | 1.20    | ppb   |
| Krypton    | 83-1  |          |          |          |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S04 Instrumnet Name : P7  
Client Sample ID : S04 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:21:10 DataFile Name : 008CAL.S.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Lead       | 206-1 | 565.81   | 582.89   | 579.06   | 575.92     | 1.56    | ppb   |
| Lead       | 207-1 | 574.00   | 588.83   | 580.76   | 581.20     | 1.28    | ppb   |
| Lead       | 208-1 | 571.10   | 586.29   | 577.76   | 578.38     | 1.32    | ppb   |
| Lithium    | 6-1   |          |          |          | 109        |         | %     |
| Magnesium  | 24-2  | 10832.66 | 11131.36 | 10919.40 | 10961.14   | 1.40    | ppb   |
| Manganese  | 55-2  | 1141.15  | 1186.44  | 1149.08  | 1158.89    | 2.09    | ppb   |
| Molybdenum | 94-1  | 1127.89  | 1142.15  | 1157.14  | 1142.39    | 1.28    | ppb   |
| Molybdenum | 95-1  | 1136.21  | 1162.17  | 1162.70  | 1153.70    | 1.31    | ppb   |
| Molybdenum | 96-1  | 1121.39  | 1140.47  | 1165.90  | 1142.59    | 1.95    | ppb   |
| Molybdenum | 97-1  | 1136.35  | 1145.45  | 1148.36  | 1143.38    | 0.55    | ppb   |
| Molybdenum | 98-1  | 1134.48  | 1154.60  | 1140.88  | 1143.32    | 0.90    | ppb   |
| Neodymium  | 150-1 |          |          |          |            |         | cps   |
| Neodymium  | 150-2 |          |          |          |            |         | cps   |
| Nickel     | 60-2  | 115.22   | 117.30   | 116.86   | 116.46     | 0.94    | ppb   |
| Phosphorus | 31-2  | 2315.10  | 2367.32  | 2347.14  | 2343.19    | 1.12    | ppb   |
| Potassium  | 39-2  | 5764.66  | 5816.91  | 5754.10  | 5778.55    | 0.58    | ppb   |
| Rhodium    | 103-1 |          |          |          | 96         |         | %     |
| Rhodium    | 103-2 |          |          |          | 94         |         | %     |
| Scandium   | 45-1  |          |          |          | 96         |         | %     |
| Scandium   | 45-2  |          |          |          | 93         |         | %     |
| Selenium   | 82-1  | 117.67   | 118.38   | 121.31   | 119.12     | 1.62    | ppb   |
| Selenium   | 77-2  | 119.18   | 118.67   | 115.10   | 117.65     | 1.89    | ppb   |
| Selenium   | 78-2  | 118.57   | 122.66   | 122.57   | 121.27     | 1.93    | ppb   |
| Silicon    | 28-1  | 127.70   | 131.44   | 131.66   | 130.27     | 1.71    | ppb   |
| Silver     | 107-1 | 126.50   | 126.84   | 126.34   | 126.56     | 0.20    | ppb   |
| Silver     | 109-1 | 129.85   | 128.53   | 126.43   | 128.27     | 1.35    | ppb   |
| Sodium     | 23-2  | 11359.33 | 11526.67 | 11339.75 | 11408.58   | 0.90    | ppb   |
| Strontium  | 86-1  | 2763.39  | 2819.24  | 2852.03  | 2811.56    | 1.59    | ppb   |
| Strontium  | 88-1  | 2861.94  | 2924.35  | 2913.78  | 2900.02    | 1.15    | ppb   |
| Sulfur     | 34-1  | 2235.87  | 2371.03  | 2308.02  | 2304.98    | 2.93    | ppb   |
| Terbium    | 159-1 |          |          |          | 100        |         | %     |
| Terbium    | 159-2 |          |          |          | 99         |         | %     |
| Thallium   | 203-1 | 105.30   | 108.06   | 105.82   | 106.39     | 1.38    | ppb   |
| Thallium   | 205-1 | 113.81   | 116.58   | 114.47   | 114.95     | 1.26    | ppb   |
| Tin        | 118-1 | 116.57   | 118.38   | 117.16   | 117.37     | 0.79    | ppb   |
| Titanium   | 47-1  | 1137.64  | 1171.91  | 1162.19  | 1157.24    | 1.53    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

S04

Instrumnet Name :

P7

Client Sample ID :

S04

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 16:21:10

DataFile Name :

008CALS.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 110.33  | 111.18  | 110.96  | 110.82     | 0.40    | ppb   |
| Vanadium  | 51-2  | 114.26  | 115.42  | 115.12  | 114.93     | 0.52    | ppb   |
| Yttrium   | 89-1  |         |         |         | 97         |         | %     |
| Yttrium   | 89-2  |         |         |         | 94         |         | %     |
| Zinc      | 66-2  | 1131.69 | 1148.81 | 1151.63 | 1144.04    | 0.94    | ppb   |
| Zirconium | 90-1  | 113.32  | 115.51  | 115.37  | 114.73     | 1.07    | ppb   |
| Zirconium | 91-1  | 110.91  | 111.88  | 114.01  | 112.27     | 1.41    | ppb   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :S05Instrumnet Name :P7

Client Sample ID :S05Dilution Factor :1

Date & Time Acquired :2024-12-21 16:24:01DataFile Name :009CAL.S.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Aluminium  | 27-2  | 4894.13  | 4982.30  | 4949.09  | 4941.84    | 0.90    | ppb   |
| Antimony   | 121-1 | 257.47   | 259.17   | 263.69   | 260.11     | 1.24    | ppb   |
| Arsenic    | 75-2  | 255.21   | 251.41   | 253.16   | 253.26     | 0.75    | ppb   |
| Barium     | 135-1 | 1276.28  | 1294.03  | 1281.42  | 1283.91    | 0.71    | ppb   |
| Barium     | 137-1 | 1286.04  | 1283.77  | 1288.31  | 1286.04    | 0.18    | ppb   |
| Beryllium  | 9-1   | 257.71   | 258.77   | 260.00   | 258.83     | 0.44    | ppb   |
| Bismuth    | 209-1 |          |          |          | 101        |         | %     |
| Bismuth    | 209-2 |          |          |          | 98         |         | %     |
| Bromine    | 81-1  |          |          |          |            |         | cps   |
| Bromine    | 81-2  |          |          |          |            |         | cps   |
| Cadmium    | 108-1 | 262.15   | 264.14   | 265.21   | 263.84     | 0.59    | ppb   |
| Cadmium    | 106-1 | 267.78   | 266.87   | 266.63   | 267.09     | 0.23    | ppb   |
| Cadmium    | 111-1 | 254.51   | 253.80   | 258.34   | 255.55     | 0.96    | ppb   |
| Calcium    | 43-1  | 25759.76 | 26548.66 | 26369.18 | 26225.87   | 1.58    | ppb   |
| Calcium    | 44-1  | 24935.89 | 25444.01 | 25392.16 | 25257.35   | 1.11    | ppb   |
| Carbon     | 12-1  |          |          |          |            |         | cps   |
| Carbon     | 12-2  |          |          |          |            |         | cps   |
| Chlorine   | 35-1  |          |          |          |            |         | cps   |
| Chlorine   | 35-2  |          |          |          |            |         | cps   |
| Chromium   | 52-2  | 248.53   | 252.46   | 250.42   | 250.47     | 0.78    | ppb   |
| Cobalt     | 59-2  | 256.22   | 258.15   | 256.78   | 257.05     | 0.39    | ppb   |
| Copper     | 63-2  | 2559.08  | 2577.66  | 2571.28  | 2569.34    | 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 |          |          |          | 100        |         | %     |
| Holmium    | 165-2 |          |          |          | 99         |         | %     |
| Indium     | 115-1 |          |          |          | 92         |         | %     |
| Indium     | 115-2 |          |          |          | 91         |         | %     |
| Iron       | 56-2  | 13122.82 | 13163.88 | 13240.35 | 13175.68   | 0.45    | ppb   |
| Iron       | 57-2  | 12912.37 | 13050.54 | 13063.40 | 13008.77   | 0.64    | ppb   |
| Iron       | 54-2  | 13161.19 | 13366.80 | 13443.49 | 13323.83   | 1.10    | ppb   |
| Krypton    | 83-1  |          |          |          |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S05 Instrumnet Name : P7  
Client Sample ID : S05 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:24:01 DataFile Name : 009CAL.S.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Lead       | 206-1 | 1235.98  | 1260.98  | 1260.13  | 1252.36    | 1.13    | ppb   |
| Lead       | 207-1 | 1257.91  | 1268.61  | 1270.05  | 1265.53    | 0.52    | ppb   |
| Lead       | 208-1 | 1249.42  | 1259.05  | 1267.51  | 1258.66    | 0.72    | ppb   |
| Lithium    | 6-1   |          |          |          | 111        |         | %     |
| Magnesium  | 24-2  | 23947.34 | 24135.74 | 24279.90 | 24120.99   | 0.69    | ppb   |
| Manganese  | 55-2  | 2525.21  | 2534.74  | 2564.63  | 2541.53    | 0.81    | ppb   |
| Molybdenum | 94-1  | 2433.93  | 2515.12  | 2530.14  | 2493.07    | 2.08    | ppb   |
| Molybdenum | 95-1  | 2446.74  | 2534.01  | 2540.14  | 2506.96    | 2.08    | ppb   |
| Molybdenum | 96-1  | 2474.29  | 2519.01  | 2572.91  | 2522.07    | 1.96    | ppb   |
| Molybdenum | 97-1  | 2442.34  | 2524.53  | 2503.00  | 2489.96    | 1.71    | ppb   |
| Molybdenum | 98-1  | 2464.88  | 2507.62  | 2525.28  | 2499.26    | 1.24    | ppb   |
| Neodymium  | 150-1 |          |          |          |            |         | cps   |
| Neodymium  | 150-2 |          |          |          |            |         | cps   |
| Nickel     | 60-2  | 249.94   | 252.58   | 252.19   | 251.57     | 0.57    | ppb   |
| Phosphorus | 31-2  | 5113.45  | 5146.32  | 5106.37  | 5122.05    | 0.42    | ppb   |
| Potassium  | 39-2  | 12406.95 | 12458.15 | 12504.91 | 12456.67   | 0.39    | ppb   |
| Rhodium    | 103-1 |          |          |          | 92         |         | %     |
| Rhodium    | 103-2 |          |          |          | 91         |         | %     |
| Scandium   | 45-1  |          |          |          | 93         |         | %     |
| Scandium   | 45-2  |          |          |          | 88         |         | %     |
| Selenium   | 82-1  | 253.81   | 259.26   | 260.99   | 258.02     | 1.45    | ppb   |
| Selenium   | 77-2  | 248.17   | 253.83   | 256.82   | 252.94     | 1.74    | ppb   |
| Selenium   | 78-2  | 256.09   | 256.55   | 261.60   | 258.08     | 1.18    | ppb   |
| Silicon    | 28-1  | 253.24   | 263.08   | 260.05   | 258.79     | 1.95    | ppb   |
| Silver     | 107-1 | 267.41   | 267.80   | 268.46   | 267.89     | 0.20    | ppb   |
| Silver     | 109-1 | 266.24   | 266.43   | 269.51   | 267.39     | 0.69    | ppb   |
| Sodium     | 23-2  | 25054.55 | 25023.90 | 25261.86 | 25113.44   | 0.52    | ppb   |
| Strontium  | 86-1  | 6056.67  | 6168.84  | 6173.94  | 6133.15    | 1.08    | ppb   |
| Strontium  | 88-1  | 6131.36  | 6279.26  | 6309.16  | 6239.93    | 1.53    | ppb   |
| Sulfur     | 34-1  | 4839.11  | 5046.80  | 4958.91  | 4948.27    | 2.11    | ppb   |
| Terbium    | 159-1 |          |          |          | 99         |         | %     |
| Terbium    | 159-2 |          |          |          | 99         |         | %     |
| Thallium   | 203-1 | 252.67   | 256.64   | 252.15   | 253.82     | 0.97    | ppb   |
| Thallium   | 205-1 | 248.90   | 252.07   | 250.41   | 250.46     | 0.63    | ppb   |
| Tin        | 118-1 | 264.51   | 260.13   | 261.69   | 262.11     | 0.85    | ppb   |
| Titanium   | 47-1  | 2433.37  | 2589.37  | 2538.22  | 2520.32    | 3.16    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

S05

Instrumnet Name :

P7

Client Sample ID :

S05

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 16:24:01

DataFile Name :

009CALS.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 239.69  | 244.00  | 243.55  | 242.42     | 0.98    | ppb   |
| Vanadium  | 51-2  | 247.89  | 250.52  | 251.54  | 249.98     | 0.75    | ppb   |
| Yttrium   | 89-1  |         |         |         | 93         |         | %     |
| Yttrium   | 89-2  |         |         |         | 91         |         | %     |
| Zinc      | 66-2  | 2562.92 | 2626.27 | 2562.83 | 2584.00    | 1.42    | ppb   |
| Zirconium | 90-1  | 244.34  | 246.42  | 249.01  | 246.59     | 0.95    | ppb   |
| Zirconium | 91-1  | 239.20  | 248.58  | 246.69  | 244.82     | 2.03    | ppb   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :S06Instrumnet Name :P7

Client Sample ID :S06Dilution Factor :1

Date & Time Acquired :2024-12-21 16:26:49DataFile Name :010CAL.S.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Aluminium  | 27-2  | 9804.77  | 9776.07  | 9727.16  | 9769.33    | 0.40    | ppb   |
| Antimony   | 121-1 | 498.16   | 507.29   | 504.61   | 503.35     | 0.93    | ppb   |
| Arsenic    | 75-2  | 498.86   | 487.92   | 501.14   | 495.97     | 1.42    | ppb   |
| Barium     | 135-1 | 2468.85  | 2492.49  | 2468.58  | 2476.64    | 0.55    | ppb   |
| Barium     | 137-1 | 2462.88  | 2497.40  | 2497.13  | 2485.81    | 0.80    | ppb   |
| Beryllium  | 9-1   | 496.88   | 505.62   | 503.01   | 501.83     | 0.89    | ppb   |
| Bismuth    | 209-1 |          |          |          | 102        |         | %     |
| Bismuth    | 209-2 |          |          |          | 98         |         | %     |
| Bromine    | 81-1  |          |          |          |            |         | cps   |
| Bromine    | 81-2  |          |          |          |            |         | cps   |
| Cadmium    | 108-1 | 510.05   | 512.48   | 513.33   | 511.95     | 0.33    | ppb   |
| Cadmium    | 106-1 | 504.83   | 509.37   | 513.79   | 509.33     | 0.88    | ppb   |
| Cadmium    | 111-1 | 486.05   | 493.49   | 497.41   | 492.32     | 1.17    | ppb   |
| Calcium    | 43-1  | 50759.92 | 51544.38 | 51277.89 | 51194.06   | 0.78    | ppb   |
| Calcium    | 44-1  | 50406.25 | 51396.35 | 50686.12 | 50829.57   | 1.00    | ppb   |
| Carbon     | 12-1  |          |          |          |            |         | cps   |
| Carbon     | 12-2  |          |          |          |            |         | cps   |
| Chlorine   | 35-1  |          |          |          |            |         | cps   |
| Chlorine   | 35-2  |          |          |          |            |         | cps   |
| Chromium   | 52-2  | 504.44   | 504.81   | 505.95   | 505.07     | 0.16    | ppb   |
| Cobalt     | 59-2  | 509.10   | 505.32   | 507.02   | 507.14     | 0.37    | ppb   |
| Copper     | 63-2  | 5004.66  | 5079.88  | 5041.61  | 5042.05    | 0.75    | 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 |          |          |          | 89         |         | %     |
| Indium     | 115-2 |          |          |          | 89         |         | %     |
| Iron       | 56-2  | 26342.83 | 26266.94 | 26040.40 | 26216.72   | 0.60    | ppb   |
| Iron       | 57-2  | 25760.01 | 26073.89 | 25703.49 | 25845.80   | 0.77    | ppb   |
| Iron       | 54-2  | 26371.52 | 26166.08 | 26391.80 | 26309.80   | 0.47    | ppb   |
| Krypton    | 83-1  |          |          |          |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S06 Instrumnet Name : P7  
Client Sample ID : S06 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:26:49 DataFile Name : 010CAL.S.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Lead       | 206-1 | 2464.03  | 2460.68  | 2499.66  | 2474.79    | 0.87    | ppb   |
| Lead       | 207-1 | 2469.77  | 2490.57  | 2499.96  | 2486.77    | 0.62    | ppb   |
| Lead       | 208-1 | 2455.70  | 2485.67  | 2513.15  | 2484.84    | 1.16    | ppb   |
| Lithium    | 6-1   |          |          |          | 111        |         | %     |
| Magnesium  | 24-2  | 48060.65 | 47342.95 | 47976.76 | 47793.45   | 0.82    | ppb   |
| Manganese  | 55-2  | 5060.63  | 5121.42  | 4996.73  | 5059.60    | 1.23    | ppb   |
| Molybdenum | 94-1  | 4908.92  | 5129.58  | 4957.50  | 4998.66    | 2.32    | ppb   |
| Molybdenum | 95-1  | 4900.67  | 5107.93  | 4947.67  | 4985.42    | 2.18    | ppb   |
| Molybdenum | 96-1  | 4901.12  | 5097.98  | 4988.86  | 4995.99    | 1.97    | ppb   |
| Molybdenum | 97-1  | 4912.48  | 5116.87  | 4997.85  | 5009.07    | 2.05    | ppb   |
| Molybdenum | 98-1  | 4889.84  | 5116.72  | 4954.14  | 4986.90    | 2.34    | ppb   |
| Neodymium  | 150-1 |          |          |          |            |         | cps   |
| Neodymium  | 150-2 |          |          |          |            |         | cps   |
| Nickel     | 60-2  | 491.22   | 489.12   | 487.48   | 489.27     | 0.38    | ppb   |
| Phosphorus | 31-2  | 10116.69 | 10137.35 | 10093.17 | 10115.74   | 0.22    | ppb   |
| Potassium  | 39-2  | 24751.47 | 24714.51 | 24643.77 | 24703.25   | 0.22    | ppb   |
| Rhodium    | 103-1 |          |          |          | 88         |         | %     |
| Rhodium    | 103-2 |          |          |          | 87         |         | %     |
| Scandium   | 45-1  |          |          |          | 88         |         | %     |
| Scandium   | 45-2  |          |          |          | 85         |         | %     |
| Selenium   | 82-1  | 499.22   | 513.23   | 510.18   | 507.54     | 1.45    | ppb   |
| Selenium   | 77-2  | 508.46   | 492.58   | 507.78   | 502.94     | 1.78    | ppb   |
| Selenium   | 78-2  | 508.12   | 489.66   | 514.96   | 504.25     | 2.60    | ppb   |
| Silicon    | 28-1  | 496.77   | 499.86   | 499.89   | 498.84     | 0.36    | ppb   |
| Silver     | 107-1 | 514.41   | 509.59   | 513.16   | 512.39     | 0.49    | ppb   |
| Silver     | 109-1 | 510.54   | 508.60   | 510.40   | 509.84     | 0.21    | ppb   |
| Sodium     | 23-2  | 49845.58 | 49646.18 | 50028.58 | 49840.11   | 0.38    | ppb   |
| Strontium  | 86-1  | 12251.62 | 12817.36 | 12730.05 | 12599.68   | 2.42    | ppb   |
| Strontium  | 88-1  | 12086.28 | 12847.89 | 12474.30 | 12469.49   | 3.05    | ppb   |
| Sulfur     | 34-1  | 9838.24  | 10084.62 | 9992.84  | 9971.90    | 1.25    | ppb   |
| Terbium    | 159-1 |          |          |          | 99         |         | %     |
| Terbium    | 159-2 |          |          |          | 97         |         | %     |
| Thallium   | 203-1 | 500.40   | 494.46   | 500.45   | 498.44     | 0.69    | ppb   |
| Thallium   | 205-1 | 489.52   | 494.96   | 495.90   | 493.46     | 0.70    | ppb   |
| Tin        | 118-1 | 502.90   | 509.43   | 498.35   | 503.56     | 1.11    | ppb   |
| Titanium   | 47-1  | 4975.61  | 5073.96  | 5050.61  | 5033.40    | 1.02    | ppb   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S06 Instrumnet Name : P7  
Client Sample ID : S06 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:26:49 DataFile Name : 010CALS.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 484.44  | 489.88  | 495.34  | 489.89     | 1.11    | ppb   |
| Vanadium  | 51-2  | 505.43  | 498.23  | 500.01  | 501.23     | 0.75    | ppb   |
| Yttrium   | 89-1  |         |         |         | 90         |         | %     |
| Yttrium   | 89-2  |         |         |         | 89         |         | %     |
| Zinc      | 66-2  | 5034.96 | 5132.91 | 5106.63 | 5091.50    | 1.00    | ppb   |
| Zirconium | 90-1  | 487.13  | 513.93  | 496.27  | 499.11     | 2.73    | ppb   |
| Zirconium | 91-1  | 483.88  | 512.83  | 484.47  | 493.73     | 3.35    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

S07

Instrumnet Name :

P7

Client Sample ID :

S07

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 16:29:33

DataFile Name :

011CALS.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Aluminium  | 27-2  | 19150.09  | 19623.73  | 19596.59  | 19456.81   | 1.37    | ppb   |
| Antimony   | 121-1 | 987.83    | 992.60    | 1010.27   | 996.90     | 1.19    | ppb   |
| Arsenic    | 75-2  | 991.97    | 1004.22   | 1009.02   | 1001.74    | 0.88    | ppb   |
| Barium     | 135-1 | 4962.44   | 4969.50   | 5087.21   | 5006.38    | 1.40    | ppb   |
| Barium     | 137-1 | 4971.87   | 4963.64   | 5067.42   | 5000.98    | 1.15    | ppb   |
| Beryllium  | 9-1   | 985.08    | 990.80    | 1014.81   | 996.90     | 1.58    | ppb   |
| Bismuth    | 209-1 |           |           |           | 100        |         | %     |
| Bismuth    | 209-2 |           |           |           | 97         |         | %     |
| Bromine    | 81-1  |           |           |           |            |         | cps   |
| Bromine    | 81-2  |           |           |           |            |         | cps   |
| Cadmium    | 108-1 | 982.06    | 984.10    | 1003.69   | 989.95     | 1.21    | ppb   |
| Cadmium    | 106-1 | 990.20    | 978.42    | 1003.04   | 990.55     | 1.24    | ppb   |
| Cadmium    | 111-1 | 992.38    | 997.82    | 1018.17   | 1002.79    | 1.36    | ppb   |
| Calcium    | 43-1  | 99422.47  | 100648.91 | 102663.06 | 100911.48  | 1.62    | ppb   |
| Calcium    | 44-1  | 100445.96 | 101360.87 | 102857.58 | 101554.80  | 1.20    | ppb   |
| Carbon     | 12-1  |           |           |           |            |         | cps   |
| Carbon     | 12-2  |           |           |           |            |         | cps   |
| Chlorine   | 35-1  |           |           |           |            |         | cps   |
| Chlorine   | 35-2  |           |           |           |            |         | cps   |
| Chromium   | 52-2  | 998.64    | 1001.21   | 995.78    | 998.54     | 0.27    | ppb   |
| Cobalt     | 59-2  | 997.84    | 998.33    | 991.51    | 995.89     | 0.38    | ppb   |
| Copper     | 63-2  | 9985.02   | 10072.51  | 9845.60   | 9967.71    | 1.15    | 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 |           |           |           | 87         |         | %     |
| Indium     | 115-2 |           |           |           | 86         |         | %     |
| Iron       | 56-2  | 51658.72  | 51716.21  | 51269.05  | 51548.00   | 0.47    | ppb   |
| Iron       | 57-2  | 51514.38  | 51784.92  | 50850.47  | 51383.26   | 0.94    | ppb   |
| Iron       | 54-2  | 51595.42  | 51696.55  | 52214.44  | 51835.47   | 0.64    | ppb   |
| Krypton    | 83-1  |           |           |           |            |         | cps   |

|                        |                     |                   |            |
|------------------------|---------------------|-------------------|------------|
| LB Number :            | LB134060            | Operator :        | Jaswal     |
| Lab Sample ID :        | S07                 | Instrumnet Name : | P7         |
| Client Sample ID :     | S07                 | Dilution Factor : | 1          |
| Date & Time Acquired : | 2024-12-21 16:29:33 | DataFile Name :   | 011CAL.S.d |

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Lead       | 206-1 | 4902.23  | 5113.24  | 5039.46  | 5018.31    | 2.13    | ppb   |
| Lead       | 207-1 | 4956.24  | 5035.08  | 5033.59  | 5008.30    | 0.90    | ppb   |
| Lead       | 208-1 | 4943.49  | 5046.55  | 5043.95  | 5011.33    | 1.17    | ppb   |
| Lithium    | 6-1   |          |          |          | 111        |         | %     |
| Magnesium  | 24-2  | 94097.77 | 94452.02 | 94806.73 | 94452.18   | 0.38    | ppb   |
| Manganese  | 55-2  | 9937.93  | 10019.36 | 9956.56  | 9971.28    | 0.43    | ppb   |
| Molybdenum | 94-1  | 9745.41  | 9968.45  | 10333.72 | 10015.86   | 2.97    | ppb   |
| Molybdenum | 95-1  | 9804.17  | 9960.52  | 10287.79 | 10017.49   | 2.46    | ppb   |
| Molybdenum | 96-1  | 9869.39  | 9972.43  | 10188.25 | 10010.02   | 1.63    | ppb   |
| Molybdenum | 97-1  | 9798.36  | 10045.85 | 10189.92 | 10011.38   | 1.98    | ppb   |
| Molybdenum | 98-1  | 9832.52  | 10039.52 | 10188.58 | 10020.21   | 1.78    | ppb   |
| Neodymium  | 150-1 |          |          |          |            |         | cps   |
| Neodymium  | 150-2 |          |          |          |            |         | cps   |
| Nickel     | 60-2  | 997.77   | 1024.35  | 995.88   | 1006.00    | 1.58    | ppb   |
| Phosphorus | 31-2  | 19895.87 | 19992.01 | 19900.32 | 19929.40   | 0.27    | ppb   |
| Potassium  | 39-2  | 48740.52 | 49342.28 | 48756.62 | 48946.47   | 0.70    | ppb   |
| Rhodium    | 103-1 |          |          |          | 85         |         | %     |
| Rhodium    | 103-2 |          |          |          | 86         |         | %     |
| Scandium   | 45-1  |          |          |          | 87         |         | %     |
| Scandium   | 45-2  |          |          |          | 85         |         | %     |
| Selenium   | 82-1  | 979.72   | 991.67   | 1013.09  | 994.82     | 1.70    | ppb   |
| Selenium   | 77-2  | 979.93   | 1018.07  | 997.49   | 998.50     | 1.91    | ppb   |
| Selenium   | 78-2  | 984.87   | 1001.98  | 1001.55  | 996.13     | 0.98    | ppb   |
| Silicon    | 28-1  | 991.70   | 993.51   | 1005.67  | 996.96     | 0.76    | ppb   |
| Silver     | 107-1 | 986.32   | 982.27   | 998.19   | 988.93     | 0.84    | ppb   |
| Silver     | 109-1 | 981.73   | 980.85   | 1007.71  | 990.10     | 1.54    | ppb   |
| Sodium     | 23-2  | 98301.73 | 99074.61 | 99132.14 | 98836.16   | 0.47    | ppb   |
| Strontium  | 86-1  | 24345.04 | 25153.50 | 25561.74 | 25020.09   | 2.47    | ppb   |
| Strontium  | 88-1  | 24519.10 | 25173.95 | 25443.49 | 25045.51   | 1.90    | ppb   |
| Sulfur     | 34-1  | 19673.61 | 20130.50 | 20343.54 | 20049.22   | 1.71    | ppb   |
| Terbium    | 159-1 |          |          |          | 99         |         | %     |
| Terbium    | 159-2 |          |          |          | 98         |         | %     |
| Thallium   | 203-1 | 985.50   | 1006.38  | 1015.16  | 1002.35    | 1.52    | ppb   |
| Thallium   | 205-1 | 997.26   | 1012.86  | 1003.76  | 1004.63    | 0.78    | ppb   |
| Tin        | 118-1 | 988.71   | 992.65   | 1006.82  | 996.06     | 0.96    | ppb   |
| Titanium   | 47-1  | 9816.02  | 10029.80 | 10122.94 | 9989.59    | 1.58    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

S07

Instrumnet Name :

P7

Client Sample ID :

S07

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 16:29:33

DataFile Name :

011CALS.d

| Parameter | Mass  | ConRep1 | ConRep2  | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|----------|---------|------------|---------|-------|
| Uranium   | 238-1 | 993.16  | 1028.92  | 1004.78 | 1008.95    | 1.81    | ppb   |
| Vanadium  | 51-2  | 992.82  | 1005.47  | 1003.71 | 1000.67    | 0.68    | ppb   |
| Yttrium   | 89-1  |         |          |         | 89         |         | %     |
| Yttrium   | 89-2  |         |          |         | 88         |         | %     |
| Zinc      | 66-2  | 9806.76 | 10048.67 | 9984.88 | 9946.77    | 1.26    | ppb   |
| Zirconium | 90-1  | 978.05  | 1004.79  | 1025.11 | 1002.65    | 2.35    | ppb   |
| Zirconium | 91-1  | 977.41  | 1008.91  | 1031.90 | 1006.08    | 2.72    | ppb   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :S08Instrumnet Name :P7

Client Sample ID :S08Dilution Factor :1

Date & Time Acquired :2024-12-21 16:32:20DataFile Name :012CALS.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Aluminium  | 27-2  | 100102.60 | 100336.18 | 99987.47  | 100142.08  | 0.18    | ppb   |
| Antimony   | 121-1 | 0.58      | 0.58      | 0.54      | 0.57       | 4.14    | ppb   |
| Arsenic    | 75-2  | 0.64      | 0.64      | 0.58      | 0.62       | 5.82    | ppb   |
| Barium     | 135-1 | 2.58      | 2.54      | 2.27      | 2.46       | 6.95    | ppb   |
| Barium     | 137-1 | 2.47      | 2.50      | 2.41      | 2.46       | 1.85    | ppb   |
| Beryllium  | 9-1   | 0.35      | 0.29      | 0.27      | 0.31       | 14.45   | ppb   |
| Bismuth    | 209-1 |           |           |           | 87         |         | %     |
| Bismuth    | 209-2 |           |           |           | 85         |         | %     |
| Bromine    | 81-1  |           |           |           |            |         | cps   |
| Bromine    | 81-2  |           |           |           |            |         | cps   |
| Cadmium    | 108-1 | 0.54      | 0.49      | 0.52      | 0.52       | 4.71    | ppb   |
| Cadmium    | 106-1 | 0.45      | 0.11      | 0.09      | 0.22       | 92.19   | ppb   |
| Cadmium    | 111-1 | 0.30      | 0.24      | 0.21      | 0.25       | 18.29   | ppb   |
| Calcium    | 43-1  | 495269.61 | 502602.29 | 501058.44 | 499643.45  | 0.77    | ppb   |
| Calcium    | 44-1  | 496007.95 | 504012.48 | 498819.90 | 499613.45  | 0.81    | ppb   |
| Carbon     | 12-1  |           |           |           |            |         | cps   |
| Carbon     | 12-2  |           |           |           |            |         | cps   |
| Chlorine   | 35-1  |           |           |           |            |         | cps   |
| Chlorine   | 35-2  |           |           |           |            |         | cps   |
| Chromium   | 52-2  | 1.70      | 1.45      | 1.32      | 1.49       | 13.08   | ppb   |
| Cobalt     | 59-2  | 2.63      | 2.67      | 2.67      | 2.66       | 0.86    | ppb   |
| Copper     | 63-2  | 2.01      | 1.84      | 1.67      | 1.84       | 9.37    | 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 |           |           |           | 94         |         | %     |
| Holmium    | 165-2 |           |           |           | 94         |         | %     |
| Indium     | 115-1 |           |           |           | 81         |         | %     |
| Indium     | 115-2 |           |           |           | 84         |         | %     |
| Iron       | 56-2  | 249026.85 | 250900.33 | 248691.07 | 249539.41  | 0.48    | ppb   |
| Iron       | 57-2  | 249160.15 | 250132.42 | 249560.91 | 249617.82  | 0.20    | ppb   |
| Iron       | 54-2  | 248883.37 | 250609.41 | 248894.51 | 249462.43  | 0.40    | ppb   |
| Krypton    | 83-1  |           |           |           |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S08 Instrumnet Name : P7  
Client Sample ID : S08 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:32:20 DataFile Name : 012CALS.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Lead       | 206-1 | 1.59      | 1.52      | 1.38      | 1.50       | 7.29    | ppb   |
| Lead       | 207-1 | 1.61      | 1.52      | 1.41      | 1.51       | 6.67    | ppb   |
| Lead       | 208-1 | 1.59      | 1.50      | 1.39      | 1.49       | 6.76    | ppb   |
| Lithium    | 6-1   |           |           |           | 102        |         | %     |
| Magnesium  | 24-2  | 502918.52 | 497918.90 | 503407.67 | 501415.03  | 0.61    | ppb   |
| Manganese  | 55-2  | 4.82      | 4.68      | 4.45      | 4.65       | 3.96    | ppb   |
| Molybdenum | 94-1  | 3.44      | 3.18      | 2.84      | 3.15       | 9.63    | ppb   |
| Molybdenum | 95-1  | 2.53      | 2.38      | 2.04      | 2.32       | 10.93   | ppb   |
| Molybdenum | 96-1  | 3.95      | 3.90      | 3.58      | 3.81       | 5.22    | ppb   |
| Molybdenum | 97-1  | 2.52      | 2.32      | 2.04      | 2.29       | 10.44   | ppb   |
| Molybdenum | 98-1  | 2.43      | 2.28      | 1.97      | 2.23       | 10.55   | ppb   |
| Neodymium  | 150-1 |           |           |           |            |         | cps   |
| Neodymium  | 150-2 |           |           |           |            |         | cps   |
| Nickel     | 60-2  | 3.35      | 3.44      | 3.41      | 3.40       | 1.43    | ppb   |
| Phosphorus | 31-2  | -8.33     | -10.96    | -6.93     | -8.74      |         | ppb   |
| Potassium  | 39-2  | 248800.18 | 250420.29 | 251541.64 | 250254.04  | 0.55    | ppb   |
| Rhodium    | 103-1 |           |           |           | 78         |         | %     |
| Rhodium    | 103-2 |           |           |           | 79         |         | %     |
| Scandium   | 45-1  |           |           |           | 86         |         | %     |
| Scandium   | 45-2  |           |           |           | 86         |         | %     |
| Selenium   | 82-1  | 1.29      | 1.05      | 0.69      | 1.01       | 29.89   | ppb   |
| Selenium   | 77-2  | 0.47      | 0.30      | 0.13      | 0.30       | 57.65   | ppb   |
| Selenium   | 78-2  | 0.61      | -0.07     | 0.96      | 0.50       | 104.94  | ppb   |
| Silicon    | 28-1  | 1.49      | 2.19      | 1.50      | 1.73       | 23.27   | ppb   |
| Silver     | 107-1 | 0.25      | 0.24      | 0.21      | 0.23       | 7.97    | ppb   |
| Silver     | 109-1 | 0.26      | 0.26      | 0.21      | 0.24       | 10.37   | ppb   |
| Sodium     | 23-2  | 500980.85 | 499456.15 | 500376.29 | 500271.10  | 0.15    | ppb   |
| Strontium  | 86-1  | 73.81     | 75.50     | 70.53     | 73.28      | 3.44    | ppb   |
| Strontium  | 88-1  | 75.19     | 75.52     | 73.42     | 74.71      | 1.51    | ppb   |
| Sulfur     | 34-1  | -502.45   | -332.24   | -264.11   | -366.27    |         | ppb   |
| Terbium    | 159-1 |           |           |           | 94         |         | %     |
| Terbium    | 159-2 |           |           |           | 93         |         | %     |
| Thallium   | 203-1 | 0.22      | 0.18      | 0.16      | 0.19       | 16.19   | ppb   |
| Thallium   | 205-1 | 0.21      | 0.18      | 0.15      | 0.18       | 16.06   | ppb   |
| Tin        | 118-1 | 0.35      | 0.34      | 0.31      | 0.33       | 7.19    | ppb   |
| Titanium   | 47-1  | 2.35      | 2.24      | 1.80      | 2.13       | 13.64   | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

S08

Instrumnet Name :

P7

Client Sample ID :

S08

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 16:32:20

DataFile Name :

012CALS.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.20    | 0.18    | 0.14    | 0.17       | 16.14   | ppb   |
| Vanadium  | 51-2  | 0.23    | 0.23    | 0.20    | 0.22       | 8.64    | ppb   |
| Yttrium   | 89-1  |         |         |         | 86         |         | %     |
| Yttrium   | 89-2  |         |         |         | 87         |         | %     |
| Zinc      | 66-2  | 7.62    | 7.63    | 7.46    | 7.57       | 1.24    | ppb   |
| Zirconium | 90-1  | 0.70    | 0.68    | 0.65    | 0.68       | 3.43    | ppb   |
| Zirconium | 91-1  | 0.71    | 0.73    | 0.67    | 0.70       | 4.41    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

ICV006

Instrumnet Name :

P7

Client Sample ID :

ICV006

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 17:01:52

DataFile Name :

017ICV.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 480.48  | 492.61  | 485.38  | 486.16     | 1.26    | ppb   |
| Antimony   | 121-1 | 215.16  | 215.61  | 215.55  | 215.44     | 0.11    | ppb   |
| Arsenic    | 75-2  | 217.27  | 218.49  | 214.56  | 216.77     | 0.93    | ppb   |
| Barium     | 135-1 | 101.13  | 101.62  | 100.44  | 101.06     | 0.59    | ppb   |
| Barium     | 137-1 | 101.63  | 101.65  | 102.31  | 101.86     | 0.38    | ppb   |
| Beryllium  | 9-1   | 108.69  | 108.84  | 107.54  | 108.36     | 0.66    | ppb   |
| Bismuth    | 209-1 |         |         |         | 103        |         | %     |
| Bismuth    | 209-2 |         |         |         | 102        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | 101.19  | 99.45   | 100.69  | 100.44     | 0.89    | ppb   |
| Cadmium    | 106-1 | 97.70   | 94.69   | 96.34   | 96.24      | 1.57    | ppb   |
| Cadmium    | 111-1 | 94.12   | 94.46   | 94.54   | 94.37      | 0.24    | ppb   |
| Calcium    | 43-1  | 2057.13 | 2076.29 | 2107.48 | 2080.30    | 1.22    | ppb   |
| Calcium    | 44-1  | 2063.57 | 2086.18 | 2104.66 | 2084.80    | 0.99    | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | 103.99  | 105.91  | 104.59  | 104.83     | 0.94    | ppb   |
| Cobalt     | 59-2  | 102.79  | 105.49  | 104.15  | 104.14     | 1.30    | ppb   |
| Copper     | 63-2  | 97.37   | 98.22   | 97.90   | 97.83      | 0.44    | 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 |         |         |         | 100        |         | %     |
| Holmium    | 165-2 |         |         |         | 100        |         | %     |
| Indium     | 115-1 |         |         |         | 95         |         | %     |
| Indium     | 115-2 |         |         |         | 98         |         | %     |
| Iron       | 56-2  | 2084.72 | 2122.04 | 2124.22 | 2110.32    | 1.05    | ppb   |
| Iron       | 57-2  | 2101.27 | 2135.96 | 2127.01 | 2121.41    | 0.85    | ppb   |
| Iron       | 54-2  | 2198.70 | 2223.59 | 2220.55 | 2214.28    | 0.61    | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : ICV006 Instrumnet Name : P7  
Client Sample ID : ICV006 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:01:52 DataFile Name : 017ICV.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 207.62  | 210.93  | 210.26  | 209.61     | 0.83    | ppb   |
| Lead       | 207-1 | 180.87  | 183.64  | 187.44  | 183.98     | 1.79    | ppb   |
| Lead       | 208-1 | 198.23  | 200.85  | 203.79  | 200.96     | 1.38    | ppb   |
| Lithium    | 6-1   |         |         |         | 113        |         | %     |
| Magnesium  | 24-2  | 1132.44 | 1155.35 | 1147.10 | 1144.96    | 1.01    | ppb   |
| Manganese  | 55-2  | 100.97  | 102.67  | 102.52  | 102.06     | 0.92    | ppb   |
| Molybdenum | 94-1  | 0.04    | 0.03    | 0.06    | 0.04       | 25.78   | ppb   |
| Molybdenum | 95-1  | 0.02    | 0.02    | 0.02    | 0.02       | 3.24    | ppb   |
| Molybdenum | 96-1  | 0.05    | 0.04    | 0.03    | 0.04       | 26.10   | ppb   |
| Molybdenum | 97-1  | 0.02    | 0.02    | 0.03    | 0.02       | 25.90   | ppb   |
| Molybdenum | 98-1  | 0.02    | 0.01    | 0.02    | 0.02       | 23.25   | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | 105.14  | 107.11  | 105.37  | 105.87     | 1.02    | ppb   |
| Phosphorus | 31-2  | -15.35  | -15.89  | -15.23  | -15.49     |         | ppb   |
| Potassium  | 39-2  | 1964.08 | 1954.14 | 1997.92 | 1972.05    | 1.16    | ppb   |
| Rhodium    | 103-1 |         |         |         | 96         |         | %     |
| Rhodium    | 103-2 |         |         |         | 96         |         | %     |
| Scandium   | 45-1  |         |         |         | 96         |         | %     |
| Scandium   | 45-2  |         |         |         | 95         |         | %     |
| Selenium   | 82-1  | 218.78  | 220.40  | 220.89  | 220.03     | 0.50    | ppb   |
| Selenium   | 77-2  | 216.50  | 216.44  | 212.94  | 215.29     | 0.95    | ppb   |
| Selenium   | 78-2  | 227.58  | 224.97  | 233.11  | 228.55     | 1.82    | ppb   |
| Silicon    | 28-1  | -7.11   | -6.60   | -6.31   | -6.67      |         | ppb   |
| Silver     | 107-1 | 50.62   | 50.84   | 51.18   | 50.88      | 0.55    | ppb   |
| Silver     | 109-1 | 50.74   | 50.62   | 51.32   | 50.89      | 0.73    | ppb   |
| Sodium     | 23-2  | 2001.19 | 2003.47 | 2008.36 | 2004.34    | 0.18    | ppb   |
| Strontium  | 86-1  | 5.58    | 6.22    | 6.19    | 6.00       | 6.06    | ppb   |
| Strontium  | 88-1  | 6.02    | 6.09    | 6.05    | 6.05       | 0.56    | ppb   |
| Sulfur     | 34-1  | -250.56 | -273.86 | -201.86 | -242.09    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 100        |         | %     |
| Terbium    | 159-2 |         |         |         | 99         |         | %     |
| Thallium   | 203-1 | 202.74  | 211.95  | 210.14  | 208.28     | 2.34    | ppb   |
| Thallium   | 205-1 | 201.70  | 204.93  | 206.49  | 204.37     | 1.19    | ppb   |
| Tin        | 118-1 | 0.01    | -0.01   | -0.01   | 0.00       |         | ppb   |
| Titanium   | 47-1  | 0.01    | 0.02    | 0.02    | 0.02       | 43.73   | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

ICV006

Instrumnet Name :

P7

Client Sample ID :

ICV006

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 17:01:52

DataFile Name :

017ICV.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.00    | 0.00    | 0.00    | 0.00       | 82.68   | ppb   |
| Vanadium  | 51-2  | 100.14  | 101.94  | 101.35  | 101.14     | 0.91    | ppb   |
| Yttrium   | 89-1  |         |         |         | 95         |         | %     |
| Yttrium   | 89-2  |         |         |         | 95         |         | %     |
| Zinc      | 66-2  | 200.82  | 204.91  | 201.73  | 202.48     | 1.06    | ppb   |
| Zirconium | 90-1  | 0.01    | 0.01    | 0.01    | 0.01       | 11.01   | ppb   |
| Zirconium | 91-1  | 0.07    | 0.06    | 0.06    | 0.07       | 4.39    | ppb   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : ICB006 Instrumnet Name : P7  
Client Sample ID : ICB006 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:08:20 DataFile Name : 019CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 0.03    | 0.08    | 0.09    | 0.07       | 45.58   | ppb   |
| Antimony   | 121-1 | 0.03    | 0.03    | 0.04    | 0.03       | 12.04   | ppb   |
| Arsenic    | 75-2  | 0.00    | -0.01   | 0.00    | 0.00       |         | ppb   |
| Barium     | 135-1 | 0.01    | 0.00    | 0.00    | 0.00       | 74.41   | ppb   |
| Barium     | 137-1 | 0.00    | 0.01    | 0.01    | 0.01       | 83.56   | ppb   |
| Beryllium  | 9-1   | 0.04    | 0.03    | 0.04    | 0.03       | 17.96   | ppb   |
| Bismuth    | 209-1 |         |         |         | 103        |         | %     |
| Bismuth    | 209-2 |         |         |         | 103        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | -0.02   | -0.02   | -0.03   | -0.02      |         | ppb   |
| Cadmium    | 106-1 | 0.36    | 0.09    | -0.27   | 0.06       | 525.93  | ppb   |
| Cadmium    | 111-1 | 0.03    | 0.01    | 0.00    | 0.01       | 143.32  | ppb   |
| Calcium    | 43-1  | -2.48   | -1.65   | -2.77   | -2.30      |         | ppb   |
| Calcium    | 44-1  | -2.04   | -1.45   | -0.75   | -1.42      |         | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | -0.01   | -0.01   | 0.01    | 0.00       |         | ppb   |
| Cobalt     | 59-2  | 0.00    | -0.01   | -0.01   | 0.00       |         | ppb   |
| Copper     | 63-2  | 0.01    | 0.02    | 0.02    | 0.01       | 41.06   | 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 |         |         |         | 100        |         | %     |
| Holmium    | 165-2 |         |         |         | 101        |         | %     |
| Indium     | 115-1 |         |         |         | 96         |         | %     |
| Indium     | 115-2 |         |         |         | 98         |         | %     |
| Iron       | 56-2  | -0.11   | -0.11   | -0.18   | -0.14      |         | ppb   |
| Iron       | 57-2  | -1.32   | -2.17   | -1.21   | -1.57      |         | ppb   |
| Iron       | 54-2  | 0.20    | 0.05    | 0.37    | 0.21       | 77.28   | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : ICB006 Instrumnet Name : P7  
Client Sample ID : ICB006 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:08:20 DataFile Name : 019CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 0.02    | 0.02    | 0.02    | 0.02       | 17.91   | ppb   |
| Lead       | 207-1 | 0.02    | 0.03    | 0.02    | 0.02       | 37.60   | ppb   |
| Lead       | 208-1 | 0.02    | 0.02    | 0.01    | 0.02       | 22.78   | ppb   |
| Lithium    | 6-1   |         |         |         | 112        |         | %     |
| Magnesium  | 24-2  | 0.18    | 0.24    | 0.28    | 0.23       | 20.93   | ppb   |
| Manganese  | 55-2  | -0.01   | -0.01   | 0.00    | 0.00       |         | ppb   |
| Molybdenum | 94-1  | 0.01    | -0.01   | 0.00    | 0.00       | 1980.17 | ppb   |
| Molybdenum | 95-1  | 0.00    | 0.00    | 0.00    | 0.00       | 109.74  | ppb   |
| Molybdenum | 96-1  | -0.01   | -0.01   | 0.00    | 0.00       |         | ppb   |
| Molybdenum | 97-1  | 0.01    | 0.01    | 0.00    | 0.01       | 88.29   | ppb   |
| Molybdenum | 98-1  | 0.00    | 0.00    | 0.00    | 0.00       |         | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | 0.02    | 0.01    | 0.05    | 0.03       | 82.54   | ppb   |
| Phosphorus | 31-2  | -15.86  | -14.36  | -17.74  | -15.99     |         | ppb   |
| Potassium  | 39-2  | -6.48   | -5.38   | -4.94   | -5.60      |         | ppb   |
| Rhodium    | 103-1 |         |         |         | 96         |         | %     |
| Rhodium    | 103-2 |         |         |         | 98         |         | %     |
| Scandium   | 45-1  |         |         |         | 96         |         | %     |
| Scandium   | 45-2  |         |         |         | 96         |         | %     |
| Selenium   | 82-1  | -0.14   | 0.18    | -0.14   | -0.04      |         | ppb   |
| Selenium   | 77-2  | -0.05   | -0.05   | -0.05   | -0.05      |         | ppb   |
| Selenium   | 78-2  | 1.05    | 0.91    | 0.88    | 0.95       | 9.40    | ppb   |
| Silicon    | 28-1  | -6.93   | -6.61   | -5.72   | -6.42      |         | ppb   |
| Silver     | 107-1 | 0.01    | 0.00    | 0.01    | 0.01       | 23.17   | ppb   |
| Silver     | 109-1 | 0.01    | 0.01    | 0.01    | 0.01       | 12.62   | ppb   |
| Sodium     | 23-2  | 6.20    | 7.08    | 6.04    | 6.44       | 8.71    | ppb   |
| Strontium  | 86-1  | -0.23   | -0.44   | -0.78   | -0.48      |         | ppb   |
| Strontium  | 88-1  | -0.02   | 0.01    | 0.00    | 0.00       |         | ppb   |
| Sulfur     | 34-1  | -287.44 | -241.18 | -113.03 | -213.88    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 100        |         | %     |
| Terbium    | 159-2 |         |         |         | 101        |         | %     |
| Thallium   | 203-1 | 0.01    | 0.01    | 0.01    | 0.01       | 13.95   | ppb   |
| Thallium   | 205-1 | 0.02    | 0.02    | 0.02    | 0.02       | 6.14    | ppb   |
| Tin        | 118-1 | 0.01    | 0.00    | -0.03   | -0.01      |         | ppb   |
| Titanium   | 47-1  | 0.00    | 0.02    | 0.02    | 0.01       | 87.60   | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

ICB006

Instrumnet Name :

P7

Client Sample ID :

ICB006

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 17:08:20

DataFile Name :

019CCBE.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.00    | 0.00    | 0.00    | 0.00       | 619.67  | ppb   |
| Vanadium  | 51-2  | 0.00    | 0.00    | 0.00    | 0.00       | 71.32   | ppb   |
| Yttrium   | 89-1  |         |         |         | 96         |         | %     |
| Yttrium   | 89-2  |         |         |         | 97         |         | %     |
| Zinc      | 66-2  | 0.04    | 0.11    | 0.04    | 0.06       | 59.16   | ppb   |
| Zirconium | 90-1  | 0.00    | 0.00    | 0.00    | 0.00       |         | ppb   |
| Zirconium | 91-1  | 0.00    | 0.00    | 0.00    | 0.00       | 321.25  | ppb   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :ICSA006Instrumnet Name :P7

Client Sample ID :ICSA006Dilution Factor :1

Date & Time Acquired :2024-12-21 17:11:36DataFile Name :020ICSA.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Aluminium  | 27-2  | 92408.30  | 92213.69  | 91109.32  | 91910.44   | 0.76    | ppb   |
| Antimony   | 121-1 | 1.12      | 1.08      | 1.14      | 1.11       | 2.54    | ppb   |
| Arsenic    | 75-2  | 0.34      | 0.27      | 0.32      | 0.31       | 10.68   | ppb   |
| Barium     | 135-1 | 1.38      | 1.40      | 1.42      | 1.40       | 1.26    | ppb   |
| Barium     | 137-1 | 1.44      | 1.39      | 1.43      | 1.42       | 1.64    | ppb   |
| Beryllium  | 9-1   | 0.32      | 0.32      | 0.27      | 0.30       | 7.99    | ppb   |
| Bismuth    | 209-1 |           |           |           | 99         |         | %     |
| Bismuth    | 209-2 |           |           |           | 97         |         | %     |
| Bromine    | 81-1  |           |           |           |            |         | cps   |
| Bromine    | 81-2  |           |           |           |            |         | cps   |
| Cadmium    | 108-1 | 9.04      | 9.07      | 7.79      | 8.63       | 8.43    | ppb   |
| Cadmium    | 106-1 | -0.20     | -0.53     | 0.00      | -0.24      |         | ppb   |
| Cadmium    | 111-1 | 0.34      | 0.28      | 0.36      | 0.33       | 12.59   | ppb   |
| Calcium    | 43-1  | 100559.78 | 102335.79 | 103126.67 | 102007.41  | 1.29    | ppb   |
| Calcium    | 44-1  | 101760.78 | 102794.21 | 102323.66 | 102292.88  | 0.51    | ppb   |
| Carbon     | 12-1  |           |           |           |            |         | cps   |
| Carbon     | 12-2  |           |           |           |            |         | cps   |
| Chlorine   | 35-1  |           |           |           |            |         | cps   |
| Chlorine   | 35-2  |           |           |           |            |         | cps   |
| Chromium   | 52-2  | 20.50     | 20.67     | 20.60     | 20.59      | 0.41    | ppb   |
| Cobalt     | 59-2  | 1.25      | 1.24      | 1.27      | 1.25       | 1.45    | ppb   |
| Copper     | 63-2  | 7.07      | 7.08      | 7.17      | 7.11       | 0.81    | 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 |           |           |           | 101        |         | %     |
| Holmium    | 165-2 |           |           |           | 101        |         | %     |
| Indium     | 115-1 |           |           |           | 90         |         | %     |
| Indium     | 115-2 |           |           |           | 91         |         | %     |
| Iron       | 56-2  | 106319.35 | 104485.39 | 104881.02 | 105228.59  | 0.92    | ppb   |
| Iron       | 57-2  | 104153.27 | 103304.83 | 104757.48 | 104071.86  | 0.70    | ppb   |
| Iron       | 54-2  | 105347.94 | 105773.23 | 106747.09 | 105956.08  | 0.68    | ppb   |
| Krypton    | 83-1  |           |           |           |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : ICSA006 Instrumnet Name : P7  
Client Sample ID : ICSA006 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:11:36 DataFile Name : 020ICSA.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Lead       | 206-1 | 5.25      | 5.07      | 4.86      | 5.06       | 3.87    | ppb   |
| Lead       | 207-1 | 4.80      | 4.63      | 4.51      | 4.64       | 3.08    | ppb   |
| Lead       | 208-1 | 4.93      | 4.73      | 4.62      | 4.76       | 3.35    | ppb   |
| Lithium    | 6-1   |           |           |           | 109        |         | %     |
| Magnesium  | 24-2  | 94876.96  | 94154.83  | 94607.47  | 94546.42   | 0.39    | ppb   |
| Manganese  | 55-2  | 7.73      | 7.97      | 8.07      | 7.93       | 2.23    | ppb   |
| Molybdenum | 94-1  | 1627.30   | 1648.24   | 1626.12   | 1633.89    | 0.76    | ppb   |
| Molybdenum | 95-1  | 2024.21   | 2004.69   | 1970.34   | 1999.75    | 1.36    | ppb   |
| Molybdenum | 96-1  | 1981.53   | 1946.26   | 1952.93   | 1960.24    | 0.96    | ppb   |
| Molybdenum | 97-1  | 1987.27   | 1978.45   | 1971.84   | 1979.18    | 0.39    | ppb   |
| Molybdenum | 98-1  | 2001.30   | 1981.37   | 1980.81   | 1987.83    | 0.59    | ppb   |
| Neodymium  | 150-1 |           |           |           |            |         | cps   |
| Neodymium  | 150-2 |           |           |           |            |         | cps   |
| Nickel     | 60-2  | 5.38      | 5.34      | 5.43      | 5.38       | 0.84    | ppb   |
| Phosphorus | 31-2  | 100143.92 | 101320.07 | 100473.43 | 100645.81  | 0.60    | ppb   |
| Potassium  | 39-2  | 98338.79  | 98081.25  | 97629.92  | 98016.65   | 0.37    | ppb   |
| Rhodium    | 103-1 |           |           |           | 87         |         | %     |
| Rhodium    | 103-2 |           |           |           | 88         |         | %     |
| Scandium   | 45-1  |           |           |           | 90         |         | %     |
| Scandium   | 45-2  |           |           |           | 88         |         | %     |
| Selenium   | 82-1  | 0.40      | 0.41      | 0.40      | 0.40       | 2.22    | ppb   |
| Selenium   | 77-2  | 0.12      | -0.05     | 0.28      | 0.12       | 144.42  | ppb   |
| Selenium   | 78-2  | -0.21     | 0.16      | 1.07      | 0.34       | 193.78  | ppb   |
| Silicon    | 28-1  | -1.55     | -2.38     | -1.32     | -1.75      |         | ppb   |
| Silver     | 107-1 | 0.05      | 0.05      | 0.03      | 0.05       | 22.76   | ppb   |
| Silver     | 109-1 | 0.06      | 0.04      | 0.03      | 0.05       | 34.99   | ppb   |
| Sodium     | 23-2  | 99529.99  | 99044.91  | 98469.59  | 99014.83   | 0.54    | ppb   |
| Strontium  | 86-1  | 865.23    | 854.44    | 856.54    | 858.74     | 0.67    | ppb   |
| Strontium  | 88-1  | 859.95    | 844.59    | 848.23    | 850.92     | 0.94    | ppb   |
| Sulfur     | 34-1  | 103674.15 | 103545.41 | 104849.70 | 104023.09  | 0.69    | ppb   |
| Terbium    | 159-1 |           |           |           | 100        |         | %     |
| Terbium    | 159-2 |           |           |           | 100        |         | %     |
| Thallium   | 203-1 | 0.12      | 0.13      | 0.15      | 0.14       | 11.98   | ppb   |
| Thallium   | 205-1 | 0.12      | 0.15      | 0.15      | 0.14       | 14.32   | ppb   |
| Tin        | 118-1 | 0.17      | 0.17      | 0.17      | 0.17       | 2.91    | ppb   |
| Titanium   | 47-1  | 2066.94   | 2082.88   | 2089.00   | 2079.61    | 0.55    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

ICSA006

Instrumnet Name :

P7

Client Sample ID :

ICSA006

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 17:11:36

DataFile Name :

020ICSA.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.01    | 0.02    | 0.02    | 0.02       | 9.53    | ppb   |
| Vanadium  | 51-2  | 0.20    | 0.20    | 0.21    | 0.20       | 3.24    | ppb   |
| Yttrium   | 89-1  |         |         |         | 91         |         | %     |
| Yttrium   | 89-2  |         |         |         | 91         |         | %     |
| Zinc      | 66-2  | 10.85   | 10.60   | 11.25   | 10.90      | 2.98    | ppb   |
| Zirconium | 90-1  | 0.03    | 0.04    | 0.04    | 0.04       | 12.14   | ppb   |
| Zirconium | 91-1  | 0.04    | 0.04    | 0.05    | 0.04       | 17.18   | ppb   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :ICSAB006Instrumnet Name :P7

Client Sample ID :ICSAB006Dilution Factor :1

Date & Time Acquired :2024-12-21 17:20:33DataFile Name :023ICSB.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Aluminium  | 27-2  | 91570.13  | 90950.21  | 89767.72  | 90762.68   | 1.01    | ppb   |
| Antimony   | 121-1 | 20.95     | 21.49     | 21.07     | 21.17      | 1.32    | ppb   |
| Arsenic    | 75-2  | 20.24     | 21.05     | 21.72     | 21.00      | 3.51    | ppb   |
| Barium     | 135-1 | 20.97     | 21.56     | 21.32     | 21.29      | 1.38    | ppb   |
| Barium     | 137-1 | 21.49     | 21.93     | 21.51     | 21.64      | 1.16    | ppb   |
| Beryllium  | 9-1   | 21.54     | 21.36     | 21.25     | 21.38      | 0.68    | ppb   |
| Bismuth    | 209-1 |           |           |           | 101        |         | %     |
| Bismuth    | 209-2 |           |           |           | 98         |         | %     |
| Bromine    | 81-1  |           |           |           |            |         | cps   |
| Bromine    | 81-2  |           |           |           |            |         | cps   |
| Cadmium    | 108-1 | 27.42     | 26.32     | 26.26     | 26.67      | 2.45    | ppb   |
| Cadmium    | 106-1 | 16.92     | 16.20     | 15.89     | 16.34      | 3.21    | ppb   |
| Cadmium    | 111-1 | 17.17     | 17.53     | 17.37     | 17.36      | 1.06    | ppb   |
| Calcium    | 43-1  | 100081.13 | 103626.94 | 103085.10 | 102264.39  | 1.87    | ppb   |
| Calcium    | 44-1  | 99798.70  | 101650.91 | 102580.70 | 101343.43  | 1.40    | ppb   |
| Carbon     | 12-1  |           |           |           |            |         | cps   |
| Carbon     | 12-2  |           |           |           |            |         | cps   |
| Chlorine   | 35-1  |           |           |           |            |         | cps   |
| Chlorine   | 35-2  |           |           |           |            |         | cps   |
| Chromium   | 52-2  | 40.57     | 40.80     | 40.79     | 40.72      | 0.31    | ppb   |
| Cobalt     | 59-2  | 21.51     | 21.51     | 21.30     | 21.44      | 0.57    | ppb   |
| Copper     | 63-2  | 26.44     | 26.47     | 26.20     | 26.37      | 0.56    | 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 |           |           |           | 103        |         | %     |
| Holmium    | 165-2 |           |           |           | 102        |         | %     |
| Indium     | 115-1 |           |           |           | 93         |         | %     |
| Indium     | 115-2 |           |           |           | 92         |         | %     |
| Iron       | 56-2  | 106120.14 | 104943.35 | 104353.71 | 105139.07  | 0.86    | ppb   |
| Iron       | 57-2  | 103854.31 | 103077.05 | 103193.89 | 103375.08  | 0.41    | ppb   |
| Iron       | 54-2  | 105829.57 | 104578.05 | 103105.87 | 104504.50  | 1.30    | ppb   |
| Krypton    | 83-1  |           |           |           |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : ICSAB006 Instrumnet Name : P7  
Client Sample ID : ICSAB006 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:20:33 DataFile Name : 023ICSB.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Lead       | 206-1 | 24.59     | 24.60     | 24.81     | 24.67      | 0.50    | ppb   |
| Lead       | 207-1 | 23.49     | 23.31     | 23.82     | 23.54      | 1.11    | ppb   |
| Lead       | 208-1 | 23.60     | 23.76     | 23.90     | 23.75      | 0.63    | ppb   |
| Lithium    | 6-1   |           |           |           | 106        |         | %     |
| Magnesium  | 24-2  | 94525.58  | 93975.08  | 91851.78  | 93450.82   | 1.51    | ppb   |
| Manganese  | 55-2  | 28.78     | 28.59     | 28.16     | 28.51      | 1.12    | ppb   |
| Molybdenum | 94-1  | 1588.89   | 1616.37   | 1595.24   | 1600.17    | 0.90    | ppb   |
| Molybdenum | 95-1  | 1953.90   | 1938.11   | 1949.91   | 1947.31    | 0.42    | ppb   |
| Molybdenum | 96-1  | 1965.48   | 1918.46   | 1919.02   | 1934.32    | 1.39    | ppb   |
| Molybdenum | 97-1  | 1951.39   | 1954.38   | 1933.74   | 1946.50    | 0.57    | ppb   |
| Molybdenum | 98-1  | 1987.39   | 1969.51   | 1947.13   | 1968.01    | 1.02    | ppb   |
| Neodymium  | 150-1 |           |           |           |            |         | cps   |
| Neodymium  | 150-2 |           |           |           |            |         | cps   |
| Nickel     | 60-2  | 25.39     | 25.56     | 25.33     | 25.43      | 0.46    | ppb   |
| Phosphorus | 31-2  | 99691.47  | 101638.63 | 99082.29  | 100137.46  | 1.33    | ppb   |
| Potassium  | 39-2  | 97677.07  | 96608.75  | 97268.48  | 97184.77   | 0.55    | ppb   |
| Rhodium    | 103-1 |           |           |           | 89         |         | %     |
| Rhodium    | 103-2 |           |           |           | 91         |         | %     |
| Scandium   | 45-1  |           |           |           | 91         |         | %     |
| Scandium   | 45-2  |           |           |           | 89         |         | %     |
| Selenium   | 82-1  | 21.13     | 20.88     | 21.11     | 21.04      | 0.66    | ppb   |
| Selenium   | 77-2  | 21.36     | 16.94     | 19.86     | 19.39      | 11.59   | ppb   |
| Selenium   | 78-2  | 20.87     | 22.84     | 20.57     | 21.43      | 5.77    | ppb   |
| Silicon    | 28-1  | 1.41      | 2.40      | 2.23      | 2.01       | 26.33   | ppb   |
| Silver     | 107-1 | 18.96     | 19.15     | 18.85     | 18.99      | 0.81    | ppb   |
| Silver     | 109-1 | 18.85     | 19.33     | 18.87     | 19.02      | 1.42    | ppb   |
| Sodium     | 23-2  | 99240.88  | 98862.66  | 97394.28  | 98499.27   | 0.99    | ppb   |
| Strontium  | 86-1  | 844.24    | 855.31    | 846.68    | 848.74     | 0.69    | ppb   |
| Strontium  | 88-1  | 839.46    | 838.23    | 836.83    | 838.17     | 0.16    | ppb   |
| Sulfur     | 34-1  | 102211.69 | 103368.55 | 102022.99 | 102534.41  | 0.71    | ppb   |
| Terbium    | 159-1 |           |           |           | 103        |         | %     |
| Terbium    | 159-2 |           |           |           | 101        |         | %     |
| Thallium   | 203-1 | 19.73     | 19.89     | 19.97     | 19.87      | 0.62    | ppb   |
| Thallium   | 205-1 | 19.60     | 19.76     | 19.87     | 19.74      | 0.70    | ppb   |
| Tin        | 118-1 | 0.24      | 0.24      | 0.20      | 0.23       | 9.45    | ppb   |
| Titanium   | 47-1  | 2029.39   | 2034.72   | 2051.64   | 2038.58    | 0.57    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

ICSAB006

Instrumnet Name :

P7

Client Sample ID :

ICSAB006

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 17:20:33

DataFile Name :

023ICSB.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.09    | 0.08    | 0.08    | 0.09       | 10.27   | ppb   |
| Vanadium  | 51-2  | 20.66   | 20.65   | 20.47   | 20.60      | 0.52    | ppb   |
| Yttrium   | 89-1  |         |         |         | 95         |         | %     |
| Yttrium   | 89-2  |         |         |         | 93         |         | %     |
| Zinc      | 66-2  | 31.58   | 30.95   | 31.63   | 31.39      | 1.21    | ppb   |
| Zirconium | 90-1  | 0.20    | 0.19    | 0.17    | 0.18       | 9.24    | ppb   |
| Zirconium | 91-1  | 0.21    | 0.19    | 0.16    | 0.19       | 13.76   | ppb   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :CCV037Instrumnet Name :P7

Client Sample ID :CCV037Dilution Factor :1

Date & Time Acquired :2024-12-21 17:23:36DataFile Name :024CCV.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Aluminium  | 27-2  | 49385.72  | 49413.30  | 50434.19  | 49744.40   | 1.20    | ppb   |
| Antimony   | 121-1 | 503.86    | 510.60    | 503.63    | 506.03     | 0.78    | ppb   |
| Arsenic    | 75-2  | 487.00    | 487.07    | 490.57    | 488.22     | 0.42    | ppb   |
| Barium     | 135-1 | 2533.33   | 2494.52   | 2509.76   | 2512.54    | 0.78    | ppb   |
| Barium     | 137-1 | 2550.60   | 2557.54   | 2503.84   | 2537.32    | 1.15    | ppb   |
| Beryllium  | 9-1   | 508.58    | 522.04    | 514.26    | 514.96     | 1.31    | ppb   |
| Bismuth    | 209-1 |           |           |           | 97         |         | %     |
| Bismuth    | 209-2 |           |           |           | 93         |         | %     |
| Bromine    | 81-1  |           |           |           |            |         | cps   |
| Bromine    | 81-2  |           |           |           |            |         | cps   |
| Cadmium    | 108-1 | 492.14    | 496.06    | 490.99    | 493.06     | 0.54    | ppb   |
| Cadmium    | 106-1 | 495.13    | 496.02    | 493.15    | 494.76     | 0.30    | ppb   |
| Cadmium    | 111-1 | 480.04    | 479.15    | 475.56    | 478.25     | 0.50    | ppb   |
| Calcium    | 43-1  | 248795.66 | 252018.65 | 253591.56 | 251468.62  | 0.97    | ppb   |
| Calcium    | 44-1  | 250751.96 | 251577.22 | 253752.07 | 252027.09  | 0.61    | ppb   |
| Carbon     | 12-1  |           |           |           |            |         | cps   |
| Carbon     | 12-2  |           |           |           |            |         | cps   |
| Chlorine   | 35-1  |           |           |           |            |         | cps   |
| Chlorine   | 35-2  |           |           |           |            |         | cps   |
| Chromium   | 52-2  | 491.36    | 498.66    | 499.09    | 496.37     | 0.88    | ppb   |
| Cobalt     | 59-2  | 490.49    | 483.82    | 504.97    | 493.10     | 2.19    | ppb   |
| Copper     | 63-2  | 4673.85   | 4737.69   | 4806.69   | 4739.41    | 1.40    | 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 |           |           |           | 101        |         | %     |
| Holmium    | 165-2 |           |           |           | 100        |         | %     |
| Indium     | 115-1 |           |           |           | 89         |         | %     |
| Indium     | 115-2 |           |           |           | 88         |         | %     |
| Iron       | 56-2  | 127664.36 | 127715.96 | 128741.19 | 128040.51  | 0.47    | ppb   |
| Iron       | 57-2  | 125912.77 | 124445.78 | 129045.82 | 126468.12  | 1.86    | ppb   |
| Iron       | 54-2  | 126135.11 | 127597.91 | 130091.60 | 127941.54  | 1.56    | ppb   |
| Krypton    | 83-1  |           |           |           |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : CCV037 Instrumnet Name : P7  
Client Sample ID : CCV037 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:23:36 DataFile Name : 024CCV.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Lead       | 206-1 | 2573.71   | 2579.98   | 2571.31   | 2575.00    | 0.17    | ppb   |
| Lead       | 207-1 | 2572.97   | 2589.10   | 2533.96   | 2565.34    | 1.11    | ppb   |
| Lead       | 208-1 | 2562.72   | 2577.42   | 2540.08   | 2560.07    | 0.73    | ppb   |
| Lithium    | 6-1   |           |           |           | 101        |         | %     |
| Magnesium  | 24-2  | 236920.74 | 237333.18 | 241831.15 | 238695.03  | 1.14    | ppb   |
| Manganese  | 55-2  | 4879.15   | 4902.31   | 4989.38   | 4923.61    | 1.18    | ppb   |
| Molybdenum | 94-1  | 4988.11   | 5065.96   | 5086.44   | 5046.84    | 1.03    | ppb   |
| Molybdenum | 95-1  | 4942.12   | 5059.29   | 5093.26   | 5031.55    | 1.58    | ppb   |
| Molybdenum | 96-1  | 4992.79   | 5094.26   | 5108.39   | 5065.14    | 1.24    | ppb   |
| Molybdenum | 97-1  | 4955.34   | 5076.56   | 5032.58   | 5021.50    | 1.22    | ppb   |
| Molybdenum | 98-1  | 4945.29   | 5016.45   | 5045.38   | 5002.38    | 1.03    | ppb   |
| Neodymium  | 150-1 |           |           |           |            |         | cps   |
| Neodymium  | 150-2 |           |           |           |            |         | cps   |
| Nickel     | 60-2  | 459.32    | 456.50    | 469.15    | 461.66     | 1.44    | ppb   |
| Phosphorus | 31-2  | 9769.15   | 9858.57   | 10071.10  | 9899.61    | 1.57    | ppb   |
| Potassium  | 39-2  | 124307.57 | 122991.78 | 125760.21 | 124353.19  | 1.11    | ppb   |
| Rhodium    | 103-1 |           |           |           | 86         |         | %     |
| Rhodium    | 103-2 |           |           |           | 86         |         | %     |
| Scandium   | 45-1  |           |           |           | 91         |         | %     |
| Scandium   | 45-2  |           |           |           | 89         |         | %     |
| Selenium   | 82-1  | 467.19    | 480.72    | 482.02    | 476.64     | 1.72    | ppb   |
| Selenium   | 77-2  | 471.33    | 454.67    | 470.38    | 465.46     | 2.01    | ppb   |
| Selenium   | 78-2  | 474.73    | 473.79    | 476.33    | 474.95     | 0.27    | ppb   |
| Silicon    | 28-1  | 199.34    | 201.67    | 203.87    | 201.63     | 1.12    | ppb   |
| Silver     | 107-1 | 494.28    | 490.14    | 496.54    | 493.65     | 0.66    | ppb   |
| Silver     | 109-1 | 483.58    | 492.17    | 491.24    | 489.00     | 0.96    | ppb   |
| Sodium     | 23-2  | 244743.72 | 243619.05 | 248517.77 | 245626.85  | 1.04    | ppb   |
| Strontium  | 86-1  | 12516.85  | 12700.18  | 12754.36  | 12657.13   | 0.98    | ppb   |
| Strontium  | 88-1  | 12484.84  | 12658.96  | 12689.33  | 12611.04   | 0.87    | ppb   |
| Sulfur     | 34-1  | 9260.85   | 9299.22   | 9378.27   | 9312.78    | 0.64    | ppb   |
| Terbium    | 159-1 |           |           |           | 100        |         | %     |
| Terbium    | 159-2 |           |           |           | 98         |         | %     |
| Thallium   | 203-1 | 523.28    | 522.11    | 520.32    | 521.90     | 0.29    | ppb   |
| Thallium   | 205-1 | 520.99    | 511.62    | 518.01    | 516.87     | 0.93    | ppb   |
| Tin        | 118-1 | 510.91    | 498.82    | 502.38    | 504.04     | 1.23    | ppb   |
| Titanium   | 47-1  | 4980.90   | 4948.66   | 4998.01   | 4975.86    | 0.50    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

CCV037

Instrumnet Name :

P7

Client Sample ID :

CCV037

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 17:23:36

DataFile Name :

024CCV.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 517.09  | 522.33  | 518.66  | 519.36     | 0.52    | ppb   |
| Vanadium  | 51-2  | 507.94  | 501.18  | 511.53  | 506.88     | 1.04    | ppb   |
| Yttrium   | 89-1  |         |         |         | 93         |         | %     |
| Yttrium   | 89-2  |         |         |         | 91         |         | %     |
| Zinc      | 66-2  | 4668.83 | 4683.48 | 4840.19 | 4730.83    | 2.01    | ppb   |
| Zirconium | 90-1  | 491.69  | 508.61  | 508.58  | 502.96     | 1.94    | ppb   |
| Zirconium | 91-1  | 494.85  | 513.94  | 505.62  | 504.80     | 1.90    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

CCB037

Instrumnet Name :

P7

Client Sample ID :

CCB037

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 17:29:37

DataFile Name :

026CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 0.27    | 0.32    | 0.38    | 0.32       | 16.10   | ppb   |
| Antimony   | 121-1 | 0.06    | 0.06    | 0.05    | 0.06       | 6.52    | ppb   |
| Arsenic    | 75-2  | 0.00    | 0.01    | 0.00    | 0.00       | 257.85  | ppb   |
| Barium     | 135-1 | 0.02    | 0.01    | 0.01    | 0.01       | 41.32   | ppb   |
| Barium     | 137-1 | 0.02    | 0.01    | 0.01    | 0.01       | 30.43   | ppb   |
| Beryllium  | 9-1   | 0.05    | 0.02    | 0.03    | 0.03       | 46.67   | ppb   |
| Bismuth    | 209-1 |         |         |         | 106        |         | %     |
| Bismuth    | 209-2 |         |         |         | 105        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | 0.03    | 0.01    | 0.00    | 0.01       | 105.14  | ppb   |
| Cadmium    | 106-1 | -0.23   | -0.10   | -0.15   | -0.16      |         | ppb   |
| Cadmium    | 111-1 | 0.00    | 0.01    | 0.00    | 0.00       | 6814.75 | ppb   |
| Calcium    | 43-1  | -0.63   | 1.50    | 0.92    | 0.59       | 185.45  | ppb   |
| Calcium    | 44-1  | 0.92    | 0.54    | -0.12   | 0.44       | 118.55  | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | 0.02    | 0.00    | 0.03    | 0.02       | 102.09  | ppb   |
| Cobalt     | 59-2  | 0.00    | 0.00    | 0.00    | 0.00       |         | ppb   |
| Copper     | 63-2  | 0.06    | 0.06    | 0.06    | 0.06       | 5.05    | 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 |         |         |         | 103        |         | %     |
| Holmium    | 165-2 |         |         |         | 102        |         | %     |
| Indium     | 115-1 |         |         |         | 97         |         | %     |
| Indium     | 115-2 |         |         |         | 97         |         | %     |
| Iron       | 56-2  | 0.42    | 0.26    | 0.44    | 0.37       | 26.94   | ppb   |
| Iron       | 57-2  | -0.37   | -0.94   | -0.88   | -0.73      |         | ppb   |
| Iron       | 54-2  | 0.37    | 0.18    | 0.05    | 0.20       | 80.37   | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : CCB037 Instrumnet Name : P7  
Client Sample ID : CCB037 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:29:37 DataFile Name : 026CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 0.08    | 0.07    | 0.08    | 0.08       | 8.88    | ppb   |
| Lead       | 207-1 | 0.08    | 0.08    | 0.08    | 0.08       | 5.24    | ppb   |
| Lead       | 208-1 | 0.08    | 0.07    | 0.07    | 0.07       | 1.78    | ppb   |
| Lithium    | 6-1   |         |         |         | 109        |         | %     |
| Magnesium  | 24-2  | 1.09    | 1.11    | 1.26    | 1.15       | 8.04    | ppb   |
| Manganese  | 55-2  | 0.04    | 0.03    | 0.03    | 0.03       | 23.06   | ppb   |
| Molybdenum | 94-1  | 0.06    | 0.06    | 0.07    | 0.06       | 15.26   | ppb   |
| Molybdenum | 95-1  | 0.07    | 0.06    | 0.05    | 0.06       | 14.53   | ppb   |
| Molybdenum | 96-1  | 0.06    | 0.06    | 0.04    | 0.05       | 12.06   | ppb   |
| Molybdenum | 97-1  | 0.06    | 0.04    | 0.04    | 0.05       | 17.94   | ppb   |
| Molybdenum | 98-1  | 0.06    | 0.06    | 0.04    | 0.05       | 16.39   | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | 0.02    | -0.01   | 0.01    | 0.01       | 199.57  | ppb   |
| Phosphorus | 31-2  | -14.95  | -16.89  | -17.43  | -16.42     |         | ppb   |
| Potassium  | 39-2  | -1.78   | -2.24   | -0.77   | -1.60      |         | ppb   |
| Rhodium    | 103-1 |         |         |         | 97         |         | %     |
| Rhodium    | 103-2 |         |         |         | 98         |         | %     |
| Scandium   | 45-1  |         |         |         | 94         |         | %     |
| Scandium   | 45-2  |         |         |         | 92         |         | %     |
| Selenium   | 82-1  | -0.02   | 0.04    | -0.15   | -0.05      |         | ppb   |
| Selenium   | 77-2  | -0.05   | -0.05   | 0.11    | 0.00       | 3697.03 | ppb   |
| Selenium   | 78-2  | 0.77    | 0.36    | 0.19    | 0.44       | 66.88   | ppb   |
| Silicon    | 28-1  | -8.43   | -7.60   | -8.21   | -8.08      |         | ppb   |
| Silver     | 107-1 | 0.02    | 0.02    | 0.01    | 0.01       | 14.89   | ppb   |
| Silver     | 109-1 | 0.02    | 0.02    | 0.02    | 0.02       | 9.21    | ppb   |
| Sodium     | 23-2  | 32.45   | 32.83   | 31.38   | 32.22      | 2.34    | ppb   |
| Strontium  | 86-1  | -0.28   | -0.23   | -0.36   | -0.29      |         | ppb   |
| Strontium  | 88-1  | 0.05    | 0.05    | 0.00    | 0.03       | 82.74   | ppb   |
| Sulfur     | 34-1  | -495.45 | -426.43 | -437.38 | -453.09    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 103        |         | %     |
| Terbium    | 159-2 |         |         |         | 101        |         | %     |
| Thallium   | 203-1 | 0.07    | 0.06    | 0.06    | 0.07       | 8.94    | ppb   |
| Thallium   | 205-1 | 0.07    | 0.07    | 0.07    | 0.07       | 2.29    | ppb   |
| Tin        | 118-1 | 0.00    | -0.01   | 0.00    | 0.00       |         | ppb   |
| Titanium   | 47-1  | 0.08    | 0.06    | 0.08    | 0.08       | 12.15   | ppb   |

LB Number :LB134060

Operator :Jaswal

Lab Sample ID :CCB037

Instrumnet Name :P7

Client Sample ID :CCB037

Dilution Factor :1

Date & Time Acquired :2024-12-21 17:29:37

DataFile Name :026CCBE.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.00    | 0.00    | 0.00    | 0.00       | 31.57   | ppb   |
| Vanadium  | 51-2  | 0.01    | 0.00    | 0.00    | 0.00       | 59.26   | ppb   |
| Yttrium   | 89-1  |         |         |         | 97         |         | %     |
| Yttrium   | 89-2  |         |         |         | 95         |         | %     |
| Zinc      | 66-2  | 0.06    | 0.12    | 0.02    | 0.07       | 74.52   | ppb   |
| Zirconium | 90-1  | 0.01    | 0.01    | 0.01    | 0.01       | 10.29   | ppb   |
| Zirconium | 91-1  | 0.01    | 0.02    | 0.02    | 0.02       | 17.75   | ppb   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :PB165675BLInstrumnet Name :P7

Client Sample ID :PBS675Dilution Factor :1

Date & Time Acquired :2024-12-21 17:32:56DataFile Name :027CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 0.30    | 0.32    | 0.50    | 0.37       | 29.52   | ppb   |
| Antimony   | 121-1 | 0.03    | 0.03    | 0.03    | 0.03       | 5.20    | ppb   |
| Arsenic    | 75-2  | 0.01    | -0.01   | 0.00    | 0.00       | 2215.29 | ppb   |
| Barium     | 135-1 | 0.00    | 0.00    | 0.01    | 0.00       | 39.27   | ppb   |
| Barium     | 137-1 | 0.00    | 0.00    | 0.00    | 0.00       | 830.43  | ppb   |
| Beryllium  | 9-1   | 0.03    | 0.01    | 0.04    | 0.03       | 43.33   | ppb   |
| Bismuth    | 209-1 |         |         |         | 107        |         | %     |
| Bismuth    | 209-2 |         |         |         | 103        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | 0.04    | -0.05   | -0.03   | -0.01      |         | ppb   |
| Cadmium    | 106-1 | -0.05   | -0.47   | -0.75   | -0.42      |         | ppb   |
| Cadmium    | 111-1 | 0.00    | -0.02   | -0.03   | -0.02      |         | ppb   |
| Calcium    | 43-1  | -0.68   | -1.01   | -0.63   | -0.77      |         | ppb   |
| Calcium    | 44-1  | -0.29   | -0.36   | -0.35   | -0.33      |         | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | 0.00    | 0.00    | -0.01   | 0.00       |         | ppb   |
| Cobalt     | 59-2  | -0.01   | 0.00    | 0.00    | 0.00       |         | ppb   |
| Copper     | 63-2  | 0.05    | 0.03    | 0.04    | 0.04       | 22.12   | 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 |         |         |         | 103        |         | %     |
| Holmium    | 165-2 |         |         |         | 102        |         | %     |
| Indium     | 115-1 |         |         |         | 99         |         | %     |
| Indium     | 115-2 |         |         |         | 97         |         | %     |
| Iron       | 56-2  | 0.06    | 0.11    | 0.11    | 0.09       | 31.96   | ppb   |
| Iron       | 57-2  | -1.16   | -1.13   | -0.96   | -1.08      |         | ppb   |
| Iron       | 54-2  | 0.04    | 0.93    | 0.16    | 0.38       | 126.78  | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : PB165675BL Instrumnet Name : P7  
Client Sample ID : PBS675 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:32:56 DataFile Name : 027CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD  | Units |
|------------|-------|---------|---------|---------|------------|----------|-------|
| Lead       | 206-1 | 0.06    | 0.05    | 0.05    | 0.05       | 8.78     | ppb   |
| Lead       | 207-1 | 0.06    | 0.05    | 0.05    | 0.05       | 5.59     | ppb   |
| Lead       | 208-1 | 0.05    | 0.05    | 0.05    | 0.05       | 6.01     | ppb   |
| Lithium    | 6-1   |         |         |         | 108        |          | %     |
| Magnesium  | 24-2  | 0.92    | 0.99    | 0.83    | 0.91       | 8.39     | ppb   |
| Manganese  | 55-2  | 0.02    | 0.01    | 0.01    | 0.01       | 51.48    | ppb   |
| Molybdenum | 94-1  | 0.02    | 0.02    | 0.04    | 0.03       | 32.07    | ppb   |
| Molybdenum | 95-1  | 0.01    | 0.02    | 0.01    | 0.01       | 34.47    | ppb   |
| Molybdenum | 96-1  | 0.02    | 0.02    | 0.02    | 0.02       | 11.36    | ppb   |
| Molybdenum | 97-1  | 0.02    | 0.02    | 0.03    | 0.02       | 27.89    | ppb   |
| Molybdenum | 98-1  | 0.02    | 0.01    | 0.02    | 0.02       | 27.04    | ppb   |
| Neodymium  | 150-1 |         |         |         |            |          | cps   |
| Neodymium  | 150-2 |         |         |         |            |          | cps   |
| Nickel     | 60-2  | 0.01    | -0.01   | 0.00    | 0.00       |          | ppb   |
| Phosphorus | 31-2  | -17.06  | -18.48  | -13.43  | -16.32     |          | ppb   |
| Potassium  | 39-2  | -2.08   | -3.96   | -3.34   | -3.13      |          | ppb   |
| Rhodium    | 103-1 |         |         |         | 97         |          | %     |
| Rhodium    | 103-2 |         |         |         | 98         |          | %     |
| Scandium   | 45-1  |         |         |         | 96         |          | %     |
| Scandium   | 45-2  |         |         |         | 93         |          | %     |
| Selenium   | 82-1  | 0.14    | 0.02    | -0.37   | -0.07      |          | ppb   |
| Selenium   | 77-2  | 0.11    | -0.05   | -0.05   | 0.00       | 10189.99 | ppb   |
| Selenium   | 78-2  | 1.05    | -0.16   | 0.31    | 0.40       | 154.00   | ppb   |
| Silicon    | 28-1  | -8.13   | -7.44   | -7.02   | -7.53      |          | ppb   |
| Silver     | 107-1 | 0.01    | 0.01    | 0.01    | 0.01       | 5.17     | ppb   |
| Silver     | 109-1 | 0.01    | 0.01    | 0.01    | 0.01       | 19.54    | ppb   |
| Sodium     | 23-2  | 21.58   | 20.22   | 18.87   | 20.22      | 6.71     | ppb   |
| Strontium  | 86-1  | -0.33   | -0.01   | -0.31   | -0.21      |          | ppb   |
| Strontium  | 88-1  | -0.01   | -0.01   | 0.04    | 0.01       | 383.18   | ppb   |
| Sulfur     | 34-1  | -567.00 | -434.28 | -411.43 | -470.90    |          | ppb   |
| Terbium    | 159-1 |         |         |         | 102        |          | %     |
| Terbium    | 159-2 |         |         |         | 101        |          | %     |
| Thallium   | 203-1 | 0.06    | 0.05    | 0.06    | 0.06       | 7.88     | ppb   |
| Thallium   | 205-1 | 0.06    | 0.06    | 0.06    | 0.06       | 2.57     | ppb   |
| Tin        | 118-1 | -0.01   | 0.01    | 0.00    | 0.00       |          | ppb   |
| Titanium   | 47-1  | 0.02    | 0.06    | 0.01    | 0.03       | 75.97    | ppb   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : PB165675BL Instrumnet Name : P7  
Client Sample ID : PBS675 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:32:56 DataFile Name : 027CCBE.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.00    | 0.00    | 0.00    | 0.00       | 190.45  | ppb   |
| Vanadium  | 51-2  | 0.00    | 0.00    | 0.00    | 0.00       | 91.88   | ppb   |
| Yttrium   | 89-1  |         |         |         | 97         |         | %     |
| Yttrium   | 89-2  |         |         |         | 96         |         | %     |
| Zinc      | 66-2  | 0.03    | 0.10    | -0.01   | 0.04       | 138.18  | ppb   |
| Zirconium | 90-1  | 0.00    | 0.00    | 0.01    | 0.00       | 49.94   | ppb   |
| Zirconium | 91-1  | 0.01    | 0.01    | 0.01    | 0.01       | 28.78   | ppb   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :PB165675BSInstrumnet Name :P7

Client Sample ID :LCS675Dilution Factor :1

Date & Time Acquired :2024-12-21 17:36:12DataFile Name :028LCSE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 42.38   | 40.92   | 40.99   | 41.43      | 1.99    | ppb   |
| Antimony   | 121-1 | 4.04    | 4.05    | 4.17    | 4.09       | 1.80    | ppb   |
| Arsenic    | 75-2  | 2.15    | 2.21    | 2.31    | 2.22       | 3.53    | ppb   |
| Barium     | 135-1 | 19.45   | 19.44   | 19.85   | 19.58      | 1.19    | ppb   |
| Barium     | 137-1 | 19.73   | 19.93   | 20.39   | 20.02      | 1.71    | ppb   |
| Beryllium  | 9-1   | 2.23    | 2.26    | 2.30    | 2.26       | 1.55    | ppb   |
| Bismuth    | 209-1 |         |         |         | 106        |         | %     |
| Bismuth    | 209-2 |         |         |         | 104        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | 2.18    | 1.96    | 2.18    | 2.11       | 6.06    | ppb   |
| Cadmium    | 106-1 | 2.53    | 1.83    | 2.06    | 2.14       | 16.75   | ppb   |
| Cadmium    | 111-1 | 2.12    | 2.10    | 2.20    | 2.14       | 2.54    | ppb   |
| Calcium    | 43-1  | 1080.63 | 1076.46 | 1054.97 | 1070.69    | 1.29    | ppb   |
| Calcium    | 44-1  | 1075.34 | 1066.63 | 1071.90 | 1071.29    | 0.41    | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | 4.16    | 4.06    | 4.11    | 4.11       | 1.20    | ppb   |
| Cobalt     | 59-2  | 2.15    | 2.08    | 2.14    | 2.12       | 1.65    | ppb   |
| Copper     | 63-2  | 4.39    | 4.29    | 4.35    | 4.34       | 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 |         |         |         | 103        |         | %     |
| Holmium    | 165-2 |         |         |         | 103        |         | %     |
| Indium     | 115-1 |         |         |         | 98         |         | %     |
| Indium     | 115-2 |         |         |         | 99         |         | %     |
| Iron       | 56-2  | 439.23  | 437.29  | 436.89  | 437.81     | 0.29    | ppb   |
| Iron       | 57-2  | 438.15  | 437.39  | 439.47  | 438.34     | 0.24    | ppb   |
| Iron       | 54-2  | 445.62  | 443.17  | 445.33  | 444.71     | 0.30    | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : PB165675BS Instrumnet Name : P7  
Client Sample ID : LCS675 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:36:12 DataFile Name : 028LCSE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 1.93    | 1.96    | 2.01    | 1.97       | 2.05    | ppb   |
| Lead       | 207-1 | 1.93    | 1.94    | 1.94    | 1.94       | 0.40    | ppb   |
| Lead       | 208-1 | 1.92    | 1.96    | 1.97    | 1.95       | 1.46    | ppb   |
| Lithium    | 6-1   |         |         |         | 106        |         | %     |
| Magnesium  | 24-2  | 966.57  | 960.64  | 972.82  | 966.68     | 0.63    | ppb   |
| Manganese  | 55-2  | 2.18    | 2.14    | 2.17    | 2.16       | 0.92    | ppb   |
| Molybdenum | 94-1  | 11.62   | 11.62   | 11.91   | 11.72      | 1.43    | ppb   |
| Molybdenum | 95-1  | 9.91    | 10.07   | 10.10   | 10.03      | 1.03    | ppb   |
| Molybdenum | 96-1  | 10.05   | 10.17   | 10.21   | 10.14      | 0.79    | ppb   |
| Molybdenum | 97-1  | 9.87    | 9.91    | 10.08   | 9.95       | 1.08    | ppb   |
| Molybdenum | 98-1  | 9.93    | 9.95    | 10.07   | 9.98       | 0.77    | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | 2.15    | 1.97    | 2.09    | 2.07       | 4.27    | ppb   |
| Phosphorus | 31-2  | 27.94   | 30.91   | 35.21   | 31.36      | 11.67   | ppb   |
| Potassium  | 39-2  | 1053.29 | 1051.34 | 1057.16 | 1053.93    | 0.28    | ppb   |
| Rhodium    | 103-1 |         |         |         | 97         |         | %     |
| Rhodium    | 103-2 |         |         |         | 98         |         | %     |
| Scandium   | 45-1  |         |         |         | 97         |         | %     |
| Scandium   | 45-2  |         |         |         | 95         |         | %     |
| Selenium   | 82-1  | 10.57   | 11.13   | 10.18   | 10.63      | 4.51    | ppb   |
| Selenium   | 77-2  | 14.36   | 10.89   | 11.03   | 12.09      | 16.24   | ppb   |
| Selenium   | 78-2  | 11.73   | 10.35   | 10.66   | 10.91      | 6.62    | ppb   |
| Silicon    | 28-1  | 0.98    | 1.16    | 0.87    | 1.00       | 14.77   | ppb   |
| Silver     | 107-1 | 2.04    | 2.06    | 2.18    | 2.09       | 3.58    | ppb   |
| Silver     | 109-1 | 2.03    | 2.06    | 2.12    | 2.07       | 2.37    | ppb   |
| Sodium     | 23-2  | 999.08  | 982.22  | 990.88  | 990.73     | 0.85    | ppb   |
| Strontium  | 86-1  | 50.69   | 47.90   | 52.39   | 50.33      | 4.51    | ppb   |
| Strontium  | 88-1  | 50.85   | 50.98   | 51.40   | 51.07      | 0.56    | ppb   |
| Sulfur     | 34-1  | -378.46 | -348.43 | -393.66 | -373.52    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 103        |         | %     |
| Terbium    | 159-2 |         |         |         | 102        |         | %     |
| Thallium   | 203-1 | 1.96    | 1.92    | 1.93    | 1.93       | 1.08    | ppb   |
| Thallium   | 205-1 | 1.92    | 1.93    | 1.92    | 1.92       | 0.42    | ppb   |
| Tin        | 118-1 | 10.28   | 10.32   | 10.58   | 10.39      | 1.57    | ppb   |
| Titanium   | 47-1  | 2.53    | 2.42    | 2.57    | 2.50       | 3.17    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

PB165675BS

Instrumnet Name :

P7

Client Sample ID :

LCS675

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 17:36:12

DataFile Name :

028LCSE.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 1.74    | 1.78    | 1.76    | 1.76       | 1.06    | ppb   |
| Vanadium  | 51-2  | 10.61   | 10.52   | 10.51   | 10.54      | 0.52    | ppb   |
| Yttrium   | 89-1  |         |         |         | 97         |         | %     |
| Yttrium   | 89-2  |         |         |         | 96         |         | %     |
| Zinc      | 66-2  | 10.60   | 11.10   | 10.50   | 10.73      | 3.02    | ppb   |
| Zirconium | 90-1  | 2.01    | 2.01    | 2.05    | 2.02       | 1.12    | ppb   |
| Zirconium | 91-1  | 1.95    | 2.01    | 2.03    | 2.00       | 2.07    | ppb   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :PB165800BLInstrumnet Name :P7

Client Sample ID :PBS800Dilution Factor :1

Date & Time Acquired :2024-12-21 17:39:29DataFile Name :029CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 0.27    | 0.45    | 0.22    | 0.31       | 39.39   | ppb   |
| Antimony   | 121-1 | 0.01    | 0.02    | 0.01    | 0.01       | 14.13   | ppb   |
| Arsenic    | 75-2  | 0.00    | 0.00    | 0.01    | 0.00       | 135.39  | ppb   |
| Barium     | 135-1 | 0.01    | 0.00    | 0.00    | 0.01       | 77.92   | ppb   |
| Barium     | 137-1 | 0.01    | 0.00    | 0.01    | 0.01       | 34.37   | ppb   |
| Beryllium  | 9-1   | 0.01    | 0.01    | 0.03    | 0.02       | 44.79   | ppb   |
| Bismuth    | 209-1 |         |         |         | 106        |         | %     |
| Bismuth    | 209-2 |         |         |         | 103        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | 0.03    | -0.02   | 0.00    | 0.00       | 595.83  | ppb   |
| Cadmium    | 106-1 | -0.82   | 0.29    | -0.78   | -0.43      |         | ppb   |
| Cadmium    | 111-1 | -0.05   | 0.03    | -0.05   | -0.02      |         | ppb   |
| Calcium    | 43-1  | -0.30   | 1.46    | -0.08   | 0.36       | 266.83  | ppb   |
| Calcium    | 44-1  | 0.51    | 0.77    | 0.36    | 0.55       | 37.77   | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | 0.01    | 0.00    | 0.02    | 0.01       | 117.74  | ppb   |
| Cobalt     | 59-2  | 0.00    | 0.00    | 0.00    | 0.00       |         | ppb   |
| Copper     | 63-2  | 0.04    | 0.03    | 0.03    | 0.03       | 8.98    | 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 |         |         |         | 98         |         | %     |
| Indium     | 115-2 |         |         |         | 98         |         | %     |
| Iron       | 56-2  | 0.14    | 0.12    | 0.05    | 0.10       | 43.26   | ppb   |
| Iron       | 57-2  | -0.38   | 0.42    | 1.08    | 0.37       | 196.03  | ppb   |
| Iron       | 54-2  | 0.35    | 0.17    | 0.30    | 0.27       | 33.42   | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : PB165800BL Instrumnet Name : P7  
Client Sample ID : PBS800 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:39:29 DataFile Name : 029CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 0.04    | 0.03    | 0.04    | 0.04       | 7.72    | ppb   |
| Lead       | 207-1 | 0.04    | 0.03    | 0.04    | 0.04       | 11.17   | ppb   |
| Lead       | 208-1 | 0.04    | 0.04    | 0.04    | 0.04       | 2.56    | ppb   |
| Lithium    | 6-1   |         |         |         | 106        |         | %     |
| Magnesium  | 24-2  | 1.34    | 0.99    | 1.03    | 1.12       | 17.12   | ppb   |
| Manganese  | 55-2  | 0.01    | 0.01    | 0.02    | 0.01       | 55.25   | ppb   |
| Molybdenum | 94-1  | 0.03    | 0.02    | 0.02    | 0.02       | 21.61   | ppb   |
| Molybdenum | 95-1  | 0.00    | 0.01    | 0.02    | 0.01       | 114.75  | ppb   |
| Molybdenum | 96-1  | 0.00    | 0.01    | 0.00    | 0.01       | 58.38   | ppb   |
| Molybdenum | 97-1  | 0.03    | 0.01    | 0.02    | 0.02       | 45.19   | ppb   |
| Molybdenum | 98-1  | 0.01    | 0.01    | 0.01    | 0.01       | 25.33   | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | 0.00    | -0.02   | -0.01   | -0.01      |         | ppb   |
| Phosphorus | 31-2  | -15.16  | -18.72  | -14.94  | -16.27     |         | ppb   |
| Potassium  | 39-2  | -2.74   | -3.76   | -2.59   | -3.03      |         | ppb   |
| Rhodium    | 103-1 |         |         |         | 99         |         | %     |
| Rhodium    | 103-2 |         |         |         | 98         |         | %     |
| Scandium   | 45-1  |         |         |         | 96         |         | %     |
| Scandium   | 45-2  |         |         |         | 95         |         | %     |
| Selenium   | 82-1  | -0.06   | 0.29    | 0.04    | 0.09       | 200.57  | ppb   |
| Selenium   | 77-2  | 0.11    | -0.05   | 0.11    | 0.06       | 167.53  | ppb   |
| Selenium   | 78-2  | 1.58    | 0.42    | 0.33    | 0.77       | 90.08   | ppb   |
| Silicon    | 28-1  | -8.20   | -6.40   | -6.60   | -7.06      |         | ppb   |
| Silver     | 107-1 | 0.02    | 0.01    | 0.01    | 0.01       | 13.98   | ppb   |
| Silver     | 109-1 | 0.02    | 0.01    | 0.01    | 0.01       | 26.84   | ppb   |
| Sodium     | 23-2  | 13.02   | 12.32   | 12.11   | 12.48      | 3.82    | ppb   |
| Strontium  | 86-1  | -0.07   | -0.06   | -0.29   | -0.14      |         | ppb   |
| Strontium  | 88-1  | 0.15    | 0.18    | 0.12    | 0.15       | 19.41   | ppb   |
| Sulfur     | 34-1  | -449.91 | -335.90 | -329.30 | -371.70    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 102        |         | %     |
| Terbium    | 159-2 |         |         |         | 100        |         | %     |
| Thallium   | 203-1 | 0.05    | 0.05    | 0.04    | 0.05       | 2.74    | ppb   |
| Thallium   | 205-1 | 0.05    | 0.05    | 0.04    | 0.05       | 4.90    | ppb   |
| Tin        | 118-1 | -0.01   | 0.00    | 0.00    | 0.00       |         | ppb   |
| Titanium   | 47-1  | 0.02    | 0.03    | 0.01    | 0.02       | 41.94   | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

PB165800BL

Instrumnet Name :

P7

Client Sample ID :

PBS800

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 17:39:29

DataFile Name :

029CCBE.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.00    | 0.00    | 0.00    | 0.00       | 52.42   | ppb   |
| Vanadium  | 51-2  | 0.00    | 0.00    | 0.00    | 0.00       | 200.15  | ppb   |
| Yttrium   | 89-1  |         |         |         | 99         |         | %     |
| Yttrium   | 89-2  |         |         |         | 96         |         | %     |
| Zinc      | 66-2  | -0.04   | 0.03    | 0.04    | 0.01       | 398.82  | ppb   |
| Zirconium | 90-1  | 0.01    | 0.00    | 0.00    | 0.00       | 74.36   | ppb   |
| Zirconium | 91-1  | 0.01    | 0.01    | 0.00    | 0.01       | 66.18   | ppb   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :PB165800BSInstrumnet Name :P7

Client Sample ID :LCS800Dilution Factor :1

Date & Time Acquired :2024-12-21 17:42:46DataFile Name :030LCSE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 41.13   | 41.29   | 40.91   | 41.11      | 0.46    | ppb   |
| Antimony   | 121-1 | 4.05    | 4.15    | 4.16    | 4.12       | 1.48    | ppb   |
| Arsenic    | 75-2  | 2.25    | 2.40    | 2.37    | 2.34       | 3.21    | ppb   |
| Barium     | 135-1 | 20.19   | 19.70   | 20.15   | 20.01      | 1.35    | ppb   |
| Barium     | 137-1 | 19.84   | 19.97   | 20.67   | 20.16      | 2.21    | ppb   |
| Beryllium  | 9-1   | 2.28    | 2.30    | 2.30    | 2.29       | 0.42    | ppb   |
| Bismuth    | 209-1 |         |         |         | 105        |         | %     |
| Bismuth    | 209-2 |         |         |         | 103        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | 2.56    | 2.09    | 2.24    | 2.30       | 10.41   | ppb   |
| Cadmium    | 106-1 | 2.77    | 2.25    | 2.27    | 2.43       | 11.99   | ppb   |
| Cadmium    | 111-1 | 2.21    | 2.11    | 2.21    | 2.18       | 2.85    | ppb   |
| Calcium    | 43-1  | 1051.75 | 1069.53 | 1048.73 | 1056.67    | 1.06    | ppb   |
| Calcium    | 44-1  | 1065.69 | 1073.99 | 1069.85 | 1069.84    | 0.39    | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | 4.08    | 4.04    | 4.15    | 4.09       | 1.30    | ppb   |
| Cobalt     | 59-2  | 2.17    | 2.12    | 2.14    | 2.14       | 1.18    | ppb   |
| Copper     | 63-2  | 4.32    | 4.30    | 4.31    | 4.31       | 0.28    | 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 |         |         |         | 102        |         | %     |
| Indium     | 115-1 |         |         |         | 98         |         | %     |
| Indium     | 115-2 |         |         |         | 99         |         | %     |
| Iron       | 56-2  | 432.55  | 439.73  | 423.93  | 432.07     | 1.83    | ppb   |
| Iron       | 57-2  | 434.10  | 434.64  | 423.38  | 430.71     | 1.47    | ppb   |
| Iron       | 54-2  | 444.05  | 446.79  | 435.36  | 442.07     | 1.35    | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : PB165800BS Instrumnet Name : P7  
Client Sample ID : LCS800 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:42:46 DataFile Name : 030LCSE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 1.98    | 1.94    | 1.97    | 1.96       | 0.99    | ppb   |
| Lead       | 207-1 | 1.92    | 1.94    | 2.00    | 1.95       | 2.08    | ppb   |
| Lead       | 208-1 | 1.92    | 1.95    | 1.94    | 1.94       | 0.88    | ppb   |
| Lithium    | 6-1   |         |         |         | 104        |         | %     |
| Magnesium  | 24-2  | 959.44  | 968.89  | 943.90  | 957.41     | 1.32    | ppb   |
| Manganese  | 55-2  | 2.02    | 2.16    | 2.17    | 2.12       | 4.06    | ppb   |
| Molybdenum | 94-1  | 11.63   | 11.73   | 11.66   | 11.67      | 0.45    | ppb   |
| Molybdenum | 95-1  | 9.89    | 10.05   | 10.00   | 9.98       | 0.81    | ppb   |
| Molybdenum | 96-1  | 10.24   | 10.11   | 9.95    | 10.10      | 1.44    | ppb   |
| Molybdenum | 97-1  | 9.79    | 9.93    | 10.02   | 9.91       | 1.15    | ppb   |
| Molybdenum | 98-1  | 9.94    | 10.05   | 9.82    | 9.93       | 1.17    | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | 2.02    | 2.11    | 2.00    | 2.05       | 2.92    | ppb   |
| Phosphorus | 31-2  | 33.12   | 35.49   | 33.57   | 34.06      | 3.70    | ppb   |
| Potassium  | 39-2  | 1048.76 | 1059.33 | 1036.33 | 1048.14    | 1.10    | ppb   |
| Rhodium    | 103-1 |         |         |         | 99         |         | %     |
| Rhodium    | 103-2 |         |         |         | 99         |         | %     |
| Scandium   | 45-1  |         |         |         | 98         |         | %     |
| Scandium   | 45-2  |         |         |         | 96         |         | %     |
| Selenium   | 82-1  | 10.49   | 10.82   | 9.99    | 10.43      | 4.02    | ppb   |
| Selenium   | 77-2  | 10.62   | 10.91   | 8.86    | 10.13      | 10.97   | ppb   |
| Selenium   | 78-2  | 11.09   | 10.97   | 10.02   | 10.70      | 5.46    | ppb   |
| Silicon    | 28-1  | 1.72    | 2.11    | 1.88    | 1.90       | 10.24   | ppb   |
| Silver     | 107-1 | 2.06    | 2.12    | 2.13    | 2.10       | 1.68    | ppb   |
| Silver     | 109-1 | 2.09    | 2.11    | 2.10    | 2.10       | 0.33    | ppb   |
| Sodium     | 23-2  | 986.41  | 992.64  | 972.61  | 983.89     | 1.04    | ppb   |
| Strontium  | 86-1  | 51.27   | 49.87   | 49.30   | 50.15      | 2.01    | ppb   |
| Strontium  | 88-1  | 49.10   | 50.26   | 49.86   | 49.74      | 1.19    | ppb   |
| Sulfur     | 34-1  | -288.76 | -311.69 | -284.51 | -294.99    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 102        |         | %     |
| Terbium    | 159-2 |         |         |         | 101        |         | %     |
| Thallium   | 203-1 | 1.92    | 1.93    | 1.94    | 1.93       | 0.66    | ppb   |
| Thallium   | 205-1 | 1.91    | 1.95    | 1.94    | 1.93       | 0.98    | ppb   |
| Tin        | 118-1 | 10.30   | 10.44   | 10.55   | 10.43      | 1.17    | ppb   |
| Titanium   | 47-1  | 2.45    | 2.50    | 2.44    | 2.46       | 1.15    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

PB165800BS

Instrumnet Name :

P7

Client Sample ID :

LCS800

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 17:42:46

DataFile Name :

030LCSE.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 1.72    | 1.76    | 1.75    | 1.74       | 1.23    | ppb   |
| Vanadium  | 51-2  | 10.68   | 10.43   | 10.45   | 10.52      | 1.32    | ppb   |
| Yttrium   | 89-1  |         |         |         | 99         |         | %     |
| Yttrium   | 89-2  |         |         |         | 97         |         | %     |
| Zinc      | 66-2  | 10.66   | 10.70   | 10.15   | 10.50      | 2.94    | ppb   |
| Zirconium | 90-1  | 1.97    | 2.00    | 1.99    | 1.99       | 0.67    | ppb   |
| Zirconium | 91-1  | 2.00    | 1.94    | 1.98    | 1.98       | 1.51    | ppb   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :PB165755BLInstrumnet Name :P7

Client Sample ID :PBS755Dilution Factor :1

Date & Time Acquired :2024-12-21 17:46:03DataFile Name :031CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD  | Units |
|------------|-------|---------|---------|---------|------------|----------|-------|
| Aluminium  | 27-2  | 0.33    | 0.26    | 0.26    | 0.28       | 14.65    | ppb   |
| Antimony   | 121-1 | 0.01    | 0.01    | 0.01    | 0.01       | 25.54    | ppb   |
| Arsenic    | 75-2  | 0.02    | 0.03    | -0.01   | 0.01       | 175.61   | ppb   |
| Barium     | 135-1 | 0.01    | 0.01    | 0.01    | 0.01       | 27.71    | ppb   |
| Barium     | 137-1 | 0.01    | 0.00    | 0.00    | 0.00       | 53.56    | ppb   |
| Beryllium  | 9-1   | 0.02    | 0.02    | 0.01    | 0.02       | 27.37    | ppb   |
| Bismuth    | 209-1 |         |         |         | 105        |          | %     |
| Bismuth    | 209-2 |         |         |         | 104        |          | %     |
| Bromine    | 81-1  |         |         |         |            |          | cps   |
| Bromine    | 81-2  |         |         |         |            |          | cps   |
| Cadmium    | 108-1 | 0.00    | -0.05   | 0.01    | -0.01      |          | ppb   |
| Cadmium    | 106-1 | 0.36    | -0.05   | -0.30   | 0.00       | 11701.09 | ppb   |
| Cadmium    | 111-1 | 0.03    | 0.00    | -0.01   | 0.01       | 269.58   | ppb   |
| Calcium    | 43-1  | -1.19   | -0.46   | 0.06    | -0.53      |          | ppb   |
| Calcium    | 44-1  | 0.06    | -1.04   | -1.11   | -0.70      |          | ppb   |
| Carbon     | 12-1  |         |         |         |            |          | cps   |
| Carbon     | 12-2  |         |         |         |            |          | cps   |
| Chlorine   | 35-1  |         |         |         |            |          | cps   |
| Chlorine   | 35-2  |         |         |         |            |          | cps   |
| Chromium   | 52-2  | 0.02    | 0.01    | 0.02    | 0.02       | 28.38    | ppb   |
| Cobalt     | 59-2  | 0.00    | 0.00    | -0.01   | 0.00       |          | ppb   |
| Copper     | 63-2  | 0.03    | 0.01    | 0.02    | 0.02       | 50.22    | 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 |         |         |         | 102        |          | %     |
| Holmium    | 165-2 |         |         |         | 103        |          | %     |
| Indium     | 115-1 |         |         |         | 99         |          | %     |
| Indium     | 115-2 |         |         |         | 99         |          | %     |
| Iron       | 56-2  | 0.06    | 0.13    | 0.01    | 0.07       | 90.76    | ppb   |
| Iron       | 57-2  | -1.29   | -0.58   | -0.30   | -0.72      |          | ppb   |
| Iron       | 54-2  | -0.24   | 0.87    | 0.31    | 0.31       | 178.73   | ppb   |
| Krypton    | 83-1  |         |         |         |            |          | cps   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :PB165755BLInstrumnet Name :P7

Client Sample ID :PBS755Dilution Factor :1

Date & Time Acquired :2024-12-21 17:46:03DataFile Name :031CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD  | Units |
|------------|-------|---------|---------|---------|------------|----------|-------|
| Lead       | 206-1 | 0.03    | 0.03    | 0.03    | 0.03       | 2.67     | ppb   |
| Lead       | 207-1 | 0.03    | 0.03    | 0.03    | 0.03       | 5.59     | ppb   |
| Lead       | 208-1 | 0.03    | 0.03    | 0.03    | 0.03       | 9.21     | ppb   |
| Lithium    | 6-1   |         |         |         | 104        |          | %     |
| Magnesium  | 24-2  | 0.84    | 0.90    | 0.90    | 0.88       | 3.93     | ppb   |
| Manganese  | 55-2  | 0.01    | 0.00    | 0.00    | 0.01       | 142.47   | ppb   |
| Molybdenum | 94-1  | 0.00    | 0.02    | 0.02    | 0.01       | 66.60    | ppb   |
| Molybdenum | 95-1  | 0.01    | 0.01    | 0.00    | 0.01       | 55.93    | ppb   |
| Molybdenum | 96-1  | 0.01    | 0.00    | 0.01    | 0.01       | 22.86    | ppb   |
| Molybdenum | 97-1  | 0.00    | 0.01    | 0.00    | 0.00       | 79.86    | ppb   |
| Molybdenum | 98-1  | 0.01    | 0.00    | 0.01    | 0.01       | 64.22    | ppb   |
| Neodymium  | 150-1 |         |         |         |            |          | cps   |
| Neodymium  | 150-2 |         |         |         |            |          | cps   |
| Nickel     | 60-2  | -0.01   | 0.03    | 0.01    | 0.01       | 174.10   | ppb   |
| Phosphorus | 31-2  | -19.34  | -17.84  | -17.36  | -18.18     |          | ppb   |
| Potassium  | 39-2  | -5.60   | -4.57   | -4.42   | -4.86      |          | ppb   |
| Rhodium    | 103-1 |         |         |         | 99         |          | %     |
| Rhodium    | 103-2 |         |         |         | 100        |          | %     |
| Scandium   | 45-1  |         |         |         | 97         |          | %     |
| Scandium   | 45-2  |         |         |         | 96         |          | %     |
| Selenium   | 82-1  | 0.39    | -0.20   | -0.05   | 0.04       | 722.73   | ppb   |
| Selenium   | 77-2  | -0.05   | 0.10    | -0.05   | 0.00       | 32633.84 | ppb   |
| Selenium   | 78-2  | 0.87    | 1.25    | 0.19    | 0.77       | 70.01    | ppb   |
| Silicon    | 28-1  | -6.21   | -5.91   | -6.12   | -6.08      |          | ppb   |
| Silver     | 107-1 | 0.01    | 0.01    | 0.01    | 0.01       | 3.39     | ppb   |
| Silver     | 109-1 | 0.01    | 0.01    | 0.01    | 0.01       | 8.08     | ppb   |
| Sodium     | 23-2  | 8.14    | 8.18    | 8.26    | 8.20       | 0.72     | ppb   |
| Strontium  | 86-1  | -0.50   | -0.10   | -0.17   | -0.26      |          | ppb   |
| Strontium  | 88-1  | 0.01    | 0.03    | 0.00    | 0.01       | 124.39   | ppb   |
| Sulfur     | 34-1  | -311.84 | -281.77 | -224.96 | -272.86    |          | ppb   |
| Terbium    | 159-1 |         |         |         | 102        |          | %     |
| Terbium    | 159-2 |         |         |         | 101        |          | %     |
| Thallium   | 203-1 | 0.04    | 0.03    | 0.04    | 0.04       | 9.88     | ppb   |
| Thallium   | 205-1 | 0.04    | 0.04    | 0.04    | 0.04       | 0.81     | ppb   |
| Tin        | 118-1 | -0.01   | -0.01   | -0.02   | -0.01      |          | ppb   |
| Titanium   | 47-1  | 0.01    | 0.01    | 0.02    | 0.01       | 38.32    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

PB165755BL

Instrumnet Name :

P7

Client Sample ID :

PBS755

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 17:46:03

DataFile Name :

031CCBE.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.00    | 0.00    | 0.00    | 0.00       | 86.90   | ppb   |
| Vanadium  | 51-2  | 0.00    | 0.00    | 0.00    | 0.00       | 123.28  | ppb   |
| Yttrium   | 89-1  |         |         |         | 99         |         | %     |
| Yttrium   | 89-2  |         |         |         | 98         |         | %     |
| Zinc      | 66-2  | 0.01    | -0.01   | 0.10    | 0.03       | 167.07  | ppb   |
| Zirconium | 90-1  | 0.00    | 0.00    | 0.00    | 0.00       | 388.47  | ppb   |
| Zirconium | 91-1  | 0.01    | 0.01    | 0.00    | 0.01       | 58.40   | ppb   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :PB165755BSInstrumnet Name :P7

Client Sample ID :LCS755Dilution Factor :1

Date & Time Acquired :2024-12-21 17:49:20DataFile Name :032LCSE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 39.89   | 41.18   | 41.78   | 40.95      | 2.36    | ppb   |
| Antimony   | 121-1 | 4.07    | 4.23    | 4.17    | 4.16       | 2.01    | ppb   |
| Arsenic    | 75-2  | 2.10    | 2.15    | 2.33    | 2.19       | 5.53    | ppb   |
| Barium     | 135-1 | 19.44   | 20.51   | 20.45   | 20.14      | 2.99    | ppb   |
| Barium     | 137-1 | 20.18   | 20.29   | 20.31   | 20.26      | 0.35    | ppb   |
| Beryllium  | 9-1   | 2.41    | 2.34    | 2.36    | 2.37       | 1.44    | ppb   |
| Bismuth    | 209-1 |         |         |         | 105        |         | %     |
| Bismuth    | 209-2 |         |         |         | 104        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | 2.30    | 2.05    | 1.88    | 2.08       | 10.23   | ppb   |
| Cadmium    | 106-1 | 3.15    | 2.17    | 2.12    | 2.48       | 23.48   | ppb   |
| Cadmium    | 111-1 | 2.08    | 2.19    | 2.20    | 2.15       | 3.08    | ppb   |
| Calcium    | 43-1  | 1051.11 | 1089.30 | 1079.34 | 1073.25    | 1.85    | ppb   |
| Calcium    | 44-1  | 1066.55 | 1074.44 | 1093.65 | 1078.21    | 1.29    | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | 4.21    | 4.09    | 4.10    | 4.13       | 1.69    | ppb   |
| Cobalt     | 59-2  | 2.14    | 2.14    | 2.06    | 2.11       | 2.19    | ppb   |
| Copper     | 63-2  | 4.31    | 4.35    | 4.31    | 4.32       | 0.48    | 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 |         |         |         | 103        |         | %     |
| Holmium    | 165-2 |         |         |         | 104        |         | %     |
| Indium     | 115-1 |         |         |         | 99         |         | %     |
| Indium     | 115-2 |         |         |         | 100        |         | %     |
| Iron       | 56-2  | 439.16  | 441.03  | 435.51  | 438.57     | 0.64    | ppb   |
| Iron       | 57-2  | 437.45  | 440.75  | 439.40  | 439.20     | 0.38    | ppb   |
| Iron       | 54-2  | 447.19  | 443.44  | 444.33  | 444.99     | 0.44    | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : PB165755BS Instrumnet Name : P7  
Client Sample ID : LCS755 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:49:20 DataFile Name : 032LCSE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 1.91    | 1.96    | 2.03    | 1.96       | 3.05    | ppb   |
| Lead       | 207-1 | 1.97    | 1.94    | 2.03    | 1.98       | 2.31    | ppb   |
| Lead       | 208-1 | 1.91    | 1.95    | 2.00    | 1.95       | 2.44    | ppb   |
| Lithium    | 6-1   |         |         |         | 104        |         | %     |
| Magnesium  | 24-2  | 965.49  | 962.91  | 962.95  | 963.78     | 0.15    | ppb   |
| Manganese  | 55-2  | 2.23    | 2.16    | 2.20    | 2.20       | 1.68    | ppb   |
| Molybdenum | 94-1  | 11.62   | 11.96   | 11.88   | 11.82      | 1.46    | ppb   |
| Molybdenum | 95-1  | 9.78    | 10.08   | 10.08   | 9.98       | 1.72    | ppb   |
| Molybdenum | 96-1  | 10.08   | 10.22   | 10.17   | 10.16      | 0.73    | ppb   |
| Molybdenum | 97-1  | 10.00   | 9.90    | 10.07   | 9.99       | 0.82    | ppb   |
| Molybdenum | 98-1  | 9.82    | 10.11   | 10.05   | 10.00      | 1.54    | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | 2.06    | 2.13    | 2.09    | 2.09       | 1.59    | ppb   |
| Phosphorus | 31-2  | 35.22   | 36.36   | 38.47   | 36.68      | 4.49    | ppb   |
| Potassium  | 39-2  | 1063.88 | 1064.90 | 1059.00 | 1062.60    | 0.30    | ppb   |
| Rhodium    | 103-1 |         |         |         | 100        |         | %     |
| Rhodium    | 103-2 |         |         |         | 100        |         | %     |
| Scandium   | 45-1  |         |         |         | 99         |         | %     |
| Scandium   | 45-2  |         |         |         | 97         |         | %     |
| Selenium   | 82-1  | 11.00   | 10.75   | 10.96   | 10.90      | 1.24    | ppb   |
| Selenium   | 77-2  | 12.62   | 9.74    | 10.74   | 11.03      | 13.24   | ppb   |
| Selenium   | 78-2  | 12.84   | 12.05   | 10.94   | 11.95      | 8.00    | ppb   |
| Silicon    | 28-1  | 1.46    | 2.07    | 3.01    | 2.18       | 35.70   | ppb   |
| Silver     | 107-1 | 2.06    | 2.16    | 2.18    | 2.13       | 2.90    | ppb   |
| Silver     | 109-1 | 2.10    | 2.15    | 2.19    | 2.15       | 2.01    | ppb   |
| Sodium     | 23-2  | 989.91  | 989.20  | 990.97  | 990.03     | 0.09    | ppb   |
| Strontium  | 86-1  | 50.62   | 48.89   | 52.18   | 50.56      | 3.25    | ppb   |
| Strontium  | 88-1  | 50.36   | 51.05   | 51.27   | 50.89      | 0.93    | ppb   |
| Sulfur     | 34-1  | -359.43 | -284.49 | -191.54 | -278.49    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 105        |         | %     |
| Terbium    | 159-2 |         |         |         | 102        |         | %     |
| Thallium   | 203-1 | 1.86    | 1.99    | 1.95    | 1.93       | 3.61    | ppb   |
| Thallium   | 205-1 | 1.91    | 1.94    | 1.98    | 1.94       | 1.93    | ppb   |
| Tin        | 118-1 | 10.19   | 10.62   | 10.60   | 10.47      | 2.35    | ppb   |
| Titanium   | 47-1  | 2.38    | 2.49    | 2.56    | 2.48       | 3.51    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

PB165755BS

Instrumnet Name :

P7

Client Sample ID :

LCS755

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 17:49:20

DataFile Name :

032LCSE.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 1.71    | 1.81    | 1.79    | 1.77       | 2.96    | ppb   |
| Vanadium  | 51-2  | 10.74   | 10.51   | 10.68   | 10.64      | 1.12    | ppb   |
| Yttrium   | 89-1  |         |         |         | 100        |         | %     |
| Yttrium   | 89-2  |         |         |         | 99         |         | %     |
| Zinc      | 66-2  | 10.50   | 10.63   | 10.47   | 10.53      | 0.79    | ppb   |
| Zirconium | 90-1  | 1.95    | 2.02    | 2.05    | 2.01       | 2.53    | ppb   |
| Zirconium | 91-1  | 2.04    | 2.03    | 2.08    | 2.05       | 1.24    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

P5248-01

Instrumnet Name :

P7

Client Sample ID :

MJNKD0

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 17:53:45

DataFile Name :

033SMPL.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Aluminium  | 27-2  | 16096.55  | 15820.07  | 15937.61  | 15951.41   | 0.87    | ppb   |
| Antimony   | 121-1 | 724.47    | 724.32    | 717.54    | 722.11     | 0.55    | ppb   |
| Arsenic    | 75-2  | 1592.87   | 1569.60   | 1601.02   | 1587.83    | 1.03    | ppb   |
| Barium     | 135-1 | 245.49    | 246.19    | 247.11    | 246.26     | 0.33    | ppb   |
| Barium     | 137-1 | 247.70    | 248.96    | 252.33    | 249.66     | 0.96    | ppb   |
| Beryllium  | 9-1   | 0.77      | 0.71      | 0.77      | 0.75       | 4.90    | ppb   |
| Bismuth    | 209-1 |           |           |           | 112        |         | %     |
| Bismuth    | 209-2 |           |           |           | 109        |         | %     |
| Bromine    | 81-1  |           |           |           |            |         | cps   |
| Bromine    | 81-2  |           |           |           |            |         | cps   |
| Cadmium    | 108-1 | 5.76      | 5.47      | 6.69      | 5.97       | 10.61   | ppb   |
| Cadmium    | 106-1 | 6.21      | 6.12      | 6.40      | 6.24       | 2.29    | ppb   |
| Cadmium    | 111-1 | 2.81      | 2.85      | 2.82      | 2.82       | 0.72    | ppb   |
| Calcium    | 43-1  | 14113.46  | 14269.77  | 14216.43  | 14199.88   | 0.56    | ppb   |
| Calcium    | 44-1  | 13544.19  | 13788.95  | 14066.58  | 13799.91   | 1.89    | ppb   |
| Carbon     | 12-1  |           |           |           |            |         | cps   |
| Carbon     | 12-2  |           |           |           |            |         | cps   |
| Chlorine   | 35-1  |           |           |           |            |         | cps   |
| Chlorine   | 35-2  |           |           |           |            |         | cps   |
| Chromium   | 52-2  | 43.26     | 43.30     | 43.35     | 43.30      | 0.10    | ppb   |
| Cobalt     | 59-2  | 171.42    | 169.07    | 168.58    | 169.69     | 0.90    | ppb   |
| Copper     | 63-2  | 1038.43   | 1027.90   | 1036.84   | 1034.39    | 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 |           |           |           | 110        |         | %     |
| Holmium    | 165-2 |           |           |           | 108        |         | %     |
| Indium     | 115-1 |           |           |           | 113        |         | %     |
| Indium     | 115-2 |           |           |           | 113        |         | %     |
| Iron       | 56-2  | 103896.62 | 103106.99 | 104101.96 | 103701.86  | 0.51    | ppb   |
| Iron       | 57-2  | 103047.49 | 99561.43  | 99812.71  | 100807.21  | 1.93    | ppb   |
| Iron       | 54-2  | 103653.26 | 102138.90 | 103184.65 | 102992.27  | 0.75    | ppb   |
| Krypton    | 83-1  |           |           |           |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5248-01 Instrumnet Name : P7  
Client Sample ID : MJNKD0 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:53:45 DataFile Name : 033SMPL.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Lead       | 206-1 | 1593.35  | 1621.28  | 1613.54  | 1609.39    | 0.90    | ppb   |
| Lead       | 207-1 | 1584.73  | 1619.94  | 1615.32  | 1606.66    | 1.19    | ppb   |
| Lead       | 208-1 | 1593.15  | 1610.92  | 1602.52  | 1602.20    | 0.56    | ppb   |
| Lithium    | 6-1   |          |          |          | 105        |         | %     |
| Magnesium  | 24-2  | 9752.66  | 9635.09  | 9678.78  | 9688.84    | 0.61    | ppb   |
| Manganese  | 55-2  | 694.70   | 706.51   | 696.02   | 699.08     | 0.93    | ppb   |
| Molybdenum | 94-1  | 34.76    | 35.53    | 35.65    | 35.31      | 1.36    | ppb   |
| Molybdenum | 95-1  | 21.39    | 21.92    | 21.83    | 21.72      | 1.31    | ppb   |
| Molybdenum | 96-1  | 23.60    | 23.98    | 23.86    | 23.81      | 0.82    | ppb   |
| Molybdenum | 97-1  | 21.34    | 21.64    | 21.72    | 21.57      | 0.94    | ppb   |
| Molybdenum | 98-1  | 21.44    | 21.66    | 21.52    | 21.54      | 0.53    | ppb   |
| Neodymium  | 150-1 |          |          |          |            |         | cps   |
| Neodymium  | 150-2 |          |          |          |            |         | cps   |
| Nickel     | 60-2  | 47.35    | 47.04    | 47.46    | 47.28      | 0.45    | ppb   |
| Phosphorus | 31-2  | 1406.71  | 1435.44  | 1422.26  | 1421.47    | 1.01    | ppb   |
| Potassium  | 39-2  | 4197.06  | 4232.89  | 4260.34  | 4230.10    | 0.75    | ppb   |
| Rhodium    | 103-1 |          |          |          | 102        |         | %     |
| Rhodium    | 103-2 |          |          |          | 105        |         | %     |
| Scandium   | 45-1  |          |          |          | 104        |         | %     |
| Scandium   | 45-2  |          |          |          | 104        |         | %     |
| Selenium   | 82-1  | 2.53     | 2.72     | 1.90     | 2.38       | 18.01   | ppb   |
| Selenium   | 77-2  | 4.36     | 5.34     | 5.41     | 5.04       | 11.66   | ppb   |
| Selenium   | 78-2  | 3.51     | 2.00     | 4.04     | 3.18       | 33.19   | ppb   |
| Silicon    | 28-1  | 1724.43  | 1710.00  | 1728.01  | 1720.81    | 0.55    | ppb   |
| Silver     | 107-1 | 3.03     | 3.07     | 3.09     | 3.06       | 0.94    | ppb   |
| Silver     | 109-1 | 3.08     | 3.03     | 3.06     | 3.05       | 0.71    | ppb   |
| Sodium     | 23-2  | 12565.96 | 12417.41 | 12611.27 | 12531.55   | 0.81    | ppb   |
| Strontium  | 86-1  | 2915.15  | 2937.21  | 2947.69  | 2933.35    | 0.57    | ppb   |
| Strontium  | 88-1  | 2989.75  | 3060.84  | 3034.36  | 3028.32    | 1.19    | ppb   |
| Sulfur     | 34-1  | 2364.30  | 2260.25  | 2221.67  | 2282.07    | 3.23    | ppb   |
| Terbium    | 159-1 |          |          |          | 109        |         | %     |
| Terbium    | 159-2 |          |          |          | 107        |         | %     |
| Thallium   | 203-1 | 0.72     | 0.71     | 0.75     | 0.73       | 2.99    | ppb   |
| Thallium   | 205-1 | 0.71     | 0.73     | 0.73     | 0.72       | 1.44    | ppb   |
| Tin        | 118-1 | 223.89   | 225.59   | 224.81   | 224.77     | 0.38    | ppb   |
| Titanium   | 47-1  | 713.39   | 716.17   | 729.32   | 719.62     | 1.18    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

P5248-01

Instrumnet Name :

P7

Client Sample ID :

MJNKD0

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 17:53:45

DataFile Name :

033SMPL.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 2.11    | 2.19    | 2.14    | 2.15       | 1.99    | ppb   |
| Vanadium  | 51-2  | 59.91   | 59.30   | 59.43   | 59.55      | 0.55    | ppb   |
| Yttrium   | 89-1  |         |         |         | 108        |         | %     |
| Yttrium   | 89-2  |         |         |         | 107        |         | %     |
| Zinc      | 66-2  | 7017.20 | 6972.03 | 7114.52 | 7034.58    | 1.04    | ppb   |
| Zirconium | 90-1  | 9.64    | 9.84    | 9.75    | 9.75       | 1.02    | ppb   |
| Zirconium | 91-1  | 9.96    | 10.07   | 10.21   | 10.08      | 1.22    | ppb   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :P5248-02Instrumnet Name :P7

Client Sample ID :MJNKD0DDilution Factor :1

Date & Time Acquired :2024-12-21 17:56:44DataFile Name :034SMPL.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Aluminium  | 27-2  | 15417.41  | 15178.21  | 15533.50  | 15376.37   | 1.18    | ppb   |
| Antimony   | 121-1 | 677.43    | 705.86    | 702.14    | 695.14     | 2.22    | ppb   |
| Arsenic    | 75-2  | 1541.90   | 1533.18   | 1580.91   | 1552.00    | 1.64    | ppb   |
| Barium     | 135-1 | 234.12    | 241.69    | 240.64    | 238.82     | 1.72    | ppb   |
| Barium     | 137-1 | 235.31    | 244.77    | 242.76    | 240.95     | 2.07    | ppb   |
| Beryllium  | 9-1   | 0.71      | 0.74      | 0.75      | 0.73       | 2.44    | ppb   |
| Bismuth    | 209-1 |           |           |           | 114        |         | %     |
| Bismuth    | 209-2 |           |           |           | 109        |         | %     |
| Bromine    | 81-1  |           |           |           |            |         | cps   |
| Bromine    | 81-2  |           |           |           |            |         | cps   |
| Cadmium    | 108-1 | 4.89      | 5.46      | 5.43      | 5.26       | 6.09    | ppb   |
| Cadmium    | 106-1 | 5.72      | 6.67      | 6.51      | 6.30       | 8.09    | ppb   |
| Cadmium    | 111-1 | 2.65      | 2.81      | 2.65      | 2.71       | 3.38    | ppb   |
| Calcium    | 43-1  | 13118.97  | 13544.79  | 13573.60  | 13412.45   | 1.90    | ppb   |
| Calcium    | 44-1  | 12799.42  | 13173.23  | 12938.22  | 12970.29   | 1.46    | ppb   |
| Carbon     | 12-1  |           |           |           |            |         | cps   |
| Carbon     | 12-2  |           |           |           |            |         | cps   |
| Chlorine   | 35-1  |           |           |           |            |         | cps   |
| Chlorine   | 35-2  |           |           |           |            |         | cps   |
| Chromium   | 52-2  | 41.78     | 41.98     | 42.31     | 42.03      | 0.64    | ppb   |
| Cobalt     | 59-2  | 159.10    | 160.48    | 162.11    | 160.56     | 0.94    | ppb   |
| Copper     | 63-2  | 984.59    | 987.39    | 1001.93   | 991.30     | 0.94    | 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 |           |           |           | 109        |         | %     |
| Indium     | 115-1 |           |           |           | 115        |         | %     |
| Indium     | 115-2 |           |           |           | 113        |         | %     |
| Iron       | 56-2  | 101193.47 | 99800.08  | 101268.53 | 100754.03  | 0.82    | ppb   |
| Iron       | 57-2  | 98232.58  | 98343.09  | 99703.87  | 98759.85   | 0.83    | ppb   |
| Iron       | 54-2  | 99989.10  | 101918.09 | 101190.53 | 101032.57  | 0.96    | ppb   |
| Krypton    | 83-1  |           |           |           |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5248-02 Instrumnet Name : P7  
Client Sample ID : MJNKD0D Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:56:44 DataFile Name : 034SMPL.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Lead       | 206-1 | 1536.98  | 1534.44  | 1558.85  | 1543.43    | 0.87    | ppb   |
| Lead       | 207-1 | 1526.96  | 1548.21  | 1557.92  | 1544.37    | 1.03    | ppb   |
| Lead       | 208-1 | 1520.37  | 1543.90  | 1551.79  | 1538.69    | 1.06    | ppb   |
| Lithium    | 6-1   |          |          |          | 101        |         | %     |
| Magnesium  | 24-2  | 9447.68  | 9469.43  | 9455.59  | 9457.57    | 0.12    | ppb   |
| Manganese  | 55-2  | 689.46   | 686.20   | 696.43   | 690.70     | 0.76    | ppb   |
| Molybdenum | 94-1  | 32.84    | 33.41    | 33.05    | 33.10      | 0.88    | ppb   |
| Molybdenum | 95-1  | 20.47    | 21.04    | 20.88    | 20.80      | 1.41    | ppb   |
| Molybdenum | 96-1  | 22.58    | 23.05    | 22.79    | 22.81      | 1.04    | ppb   |
| Molybdenum | 97-1  | 20.50    | 20.63    | 20.66    | 20.60      | 0.41    | ppb   |
| Molybdenum | 98-1  | 20.32    | 20.73    | 20.57    | 20.54      | 0.99    | ppb   |
| Neodymium  | 150-1 |          |          |          |            |         | cps   |
| Neodymium  | 150-2 |          |          |          |            |         | cps   |
| Nickel     | 60-2  | 46.08    | 45.92    | 46.24    | 46.08      | 0.35    | ppb   |
| Phosphorus | 31-2  | 1359.80  | 1413.95  | 1421.99  | 1398.58    | 2.42    | ppb   |
| Potassium  | 39-2  | 4086.82  | 4091.03  | 4123.03  | 4100.29    | 0.48    | ppb   |
| Rhodium    | 103-1 |          |          |          | 104        |         | %     |
| Rhodium    | 103-2 |          |          |          | 105        |         | %     |
| Scandium   | 45-1  |          |          |          | 104        |         | %     |
| Scandium   | 45-2  |          |          |          | 104        |         | %     |
| Selenium   | 82-1  | 1.65     | 2.04     | 1.90     | 1.86       | 10.76   | ppb   |
| Selenium   | 77-2  | 7.46     | 4.72     | 6.01     | 6.07       | 22.63   | ppb   |
| Selenium   | 78-2  | 3.17     | 2.44     | 3.78     | 3.13       | 21.43   | ppb   |
| Silicon    | 28-1  | 1617.82  | 1639.14  | 1670.44  | 1642.47    | 1.61    | ppb   |
| Silver     | 107-1 | 2.80     | 2.89     | 2.86     | 2.85       | 1.69    | ppb   |
| Silver     | 109-1 | 2.76     | 2.87     | 2.88     | 2.84       | 2.25    | ppb   |
| Sodium     | 23-2  | 12030.63 | 12134.40 | 12109.24 | 12091.42   | 0.45    | ppb   |
| Strontium  | 86-1  | 2752.19  | 2830.57  | 2794.28  | 2792.34    | 1.40    | ppb   |
| Strontium  | 88-1  | 2838.86  | 2856.96  | 2885.34  | 2860.38    | 0.82    | ppb   |
| Sulfur     | 34-1  | 1662.22  | 1815.71  | 1728.15  | 1735.36    | 4.44    | ppb   |
| Terbium    | 159-1 |          |          |          | 111        |         | %     |
| Terbium    | 159-2 |          |          |          | 107        |         | %     |
| Thallium   | 203-1 | 0.62     | 0.66     | 0.70     | 0.66       | 5.89    | ppb   |
| Thallium   | 205-1 | 0.64     | 0.67     | 0.70     | 0.67       | 4.33    | ppb   |
| Tin        | 118-1 | 207.15   | 217.94   | 215.92   | 213.67     | 2.69    | ppb   |
| Titanium   | 47-1  | 660.78   | 688.58   | 692.12   | 680.49     | 2.52    | ppb   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5248-02 Instrumnet Name : P7  
Client Sample ID : MJNKD0D Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:56:44 DataFile Name : 034SMPL.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 2.04    | 2.07    | 2.09    | 2.07       | 0.98    | ppb   |
| Vanadium  | 51-2  | 58.55   | 58.28   | 59.04   | 58.62      | 0.65    | ppb   |
| Yttrium   | 89-1  |         |         |         | 110        |         | %     |
| Yttrium   | 89-2  |         |         |         | 108        |         | %     |
| Zinc      | 66-2  | 6850.37 | 6866.66 | 6868.42 | 6861.82    | 0.15    | ppb   |
| Zirconium | 90-1  | 8.88    | 9.10    | 9.02    | 9.00       | 1.24    | ppb   |
| Zirconium | 91-1  | 9.12    | 9.49    | 9.31    | 9.31       | 2.01    | ppb   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :P5248-01LX5Instrumnet Name :P7

Client Sample ID :MJNKD0LDilution Factor :5

Date & Time Acquired :2024-12-21 17:59:45DataFile Name :035SMPL.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Aluminium  | 27-2  | 3192.53  | 3226.47  | 3220.63  | 3213.21    | 0.56    | ppb   |
| Antimony   | 121-1 | 145.09   | 145.46   | 145.47   | 145.34     | 0.15    | ppb   |
| Arsenic    | 75-2  | 330.70   | 334.15   | 323.52   | 329.46     | 1.65    | ppb   |
| Barium     | 135-1 | 49.93    | 50.10    | 50.05    | 50.03      | 0.17    | ppb   |
| Barium     | 137-1 | 50.20    | 50.18    | 50.15    | 50.17      | 0.04    | ppb   |
| Beryllium  | 9-1   | 0.10     | 0.14     | 0.18     | 0.14       | 29.71   | ppb   |
| Bismuth    | 209-1 |          |          |          | 110        |         | %     |
| Bismuth    | 209-2 |          |          |          | 107        |         | %     |
| Bromine    | 81-1  |          |          |          |            |         | cps   |
| Bromine    | 81-2  |          |          |          |            |         | cps   |
| Cadmium    | 108-1 | 1.25     | 0.88     | 1.27     | 1.14       | 19.27   | ppb   |
| Cadmium    | 106-1 | 1.49     | 1.09     | 0.67     | 1.08       | 37.90   | ppb   |
| Cadmium    | 111-1 | 0.55     | 0.57     | 0.57     | 0.56       | 1.42    | ppb   |
| Calcium    | 43-1  | 2855.03  | 2908.77  | 2858.05  | 2873.95    | 1.05    | ppb   |
| Calcium    | 44-1  | 2794.44  | 2814.91  | 2765.73  | 2791.69    | 0.88    | ppb   |
| Carbon     | 12-1  |          |          |          |            |         | cps   |
| Carbon     | 12-2  |          |          |          |            |         | cps   |
| Chlorine   | 35-1  |          |          |          |            |         | cps   |
| Chlorine   | 35-2  |          |          |          |            |         | cps   |
| Chromium   | 52-2  | 8.87     | 8.84     | 8.92     | 8.88       | 0.48    | ppb   |
| Cobalt     | 59-2  | 34.46    | 34.08    | 34.46    | 34.33      | 0.64    | ppb   |
| Copper     | 63-2  | 206.71   | 205.87   | 205.17   | 205.92     | 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 |          |          |          | 107        |         | %     |
| Holmium    | 165-2 |          |          |          | 106        |         | %     |
| Indium     | 115-1 |          |          |          | 105        |         | %     |
| Indium     | 115-2 |          |          |          | 104        |         | %     |
| Iron       | 56-2  | 21233.76 | 21248.25 | 21289.67 | 21257.23   | 0.14    | ppb   |
| Iron       | 57-2  | 20953.05 | 20683.41 | 20848.51 | 20828.32   | 0.65    | ppb   |
| Iron       | 54-2  | 21353.52 | 20718.09 | 21221.01 | 21097.54   | 1.59    | ppb   |
| Krypton    | 83-1  |          |          |          |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5248-01LX5 Instrumnet Name : P7  
Client Sample ID : MJNKD0L Dilution Factor : 5  
Date & Time Acquired : 2024-12-21 17:59:45 DataFile Name : 035SMPL.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 323.79  | 327.38  | 323.72  | 324.96     | 0.64    | ppb   |
| Lead       | 207-1 | 327.88  | 327.25  | 324.97  | 326.70     | 0.47    | ppb   |
| Lead       | 208-1 | 325.27  | 324.26  | 325.36  | 324.96     | 0.19    | ppb   |
| Lithium    | 6-1   |         |         |         | 98         |         | %     |
| Magnesium  | 24-2  | 1953.78 | 1942.46 | 1948.26 | 1948.17    | 0.29    | ppb   |
| Manganese  | 55-2  | 140.19  | 140.17  | 141.46  | 140.61     | 0.52    | ppb   |
| Molybdenum | 94-1  | 7.09    | 7.28    | 7.09    | 7.15       | 1.52    | ppb   |
| Molybdenum | 95-1  | 4.46    | 4.52    | 4.39    | 4.46       | 1.38    | ppb   |
| Molybdenum | 96-1  | 4.90    | 4.95    | 4.80    | 4.88       | 1.61    | ppb   |
| Molybdenum | 97-1  | 4.49    | 4.45    | 4.41    | 4.45       | 0.90    | ppb   |
| Molybdenum | 98-1  | 4.44    | 4.49    | 4.39    | 4.44       | 1.06    | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | 10.02   | 9.94    | 9.66    | 9.87       | 1.92    | ppb   |
| Phosphorus | 31-2  | 268.03  | 271.45  | 296.07  | 278.52     | 5.49    | ppb   |
| Potassium  | 39-2  | 887.57  | 886.66  | 888.20  | 887.48     | 0.09    | ppb   |
| Rhodium    | 103-1 |         |         |         | 102        |         | %     |
| Rhodium    | 103-2 |         |         |         | 103        |         | %     |
| Scandium   | 45-1  |         |         |         | 101        |         | %     |
| Scandium   | 45-2  |         |         |         | 100        |         | %     |
| Selenium   | 82-1  | 0.74    | 0.61    | 0.42    | 0.59       | 27.62   | ppb   |
| Selenium   | 77-2  | 0.40    | 0.86    | 1.13    | 0.79       | 46.60   | ppb   |
| Selenium   | 78-2  | 1.29    | 0.79    | 0.57    | 0.88       | 41.86   | ppb   |
| Silicon    | 28-1  | 344.70  | 352.98  | 349.43  | 349.04     | 1.19    | ppb   |
| Silver     | 107-1 | 0.61    | 0.63    | 0.64    | 0.63       | 2.43    | ppb   |
| Silver     | 109-1 | 0.62    | 0.61    | 0.61    | 0.61       | 0.49    | ppb   |
| Sodium     | 23-2  | 2624.16 | 2596.84 | 2544.80 | 2588.60    | 1.56    | ppb   |
| Strontium  | 86-1  | 601.99  | 614.87  | 598.83  | 605.23     | 1.40    | ppb   |
| Strontium  | 88-1  | 601.60  | 606.67  | 603.17  | 603.81     | 0.43    | ppb   |
| Sulfur     | 34-1  | -566.40 | -460.79 | -513.81 | -513.66    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 107        |         | %     |
| Terbium    | 159-2 |         |         |         | 104        |         | %     |
| Thallium   | 203-1 | 0.18    | 0.16    | 0.16    | 0.17       | 4.90    | ppb   |
| Thallium   | 205-1 | 0.18    | 0.17    | 0.17    | 0.17       | 2.08    | ppb   |
| Tin        | 118-1 | 43.25   | 43.23   | 43.25   | 43.24      | 0.02    | ppb   |
| Titanium   | 47-1  | 144.28  | 146.87  | 142.92  | 144.69     | 1.39    | ppb   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5248-01LX5 Instrumnet Name : P7  
Client Sample ID : MJNKD0L Dilution Factor : 5  
Date & Time Acquired : 2024-12-21 17:59:45 DataFile Name : 035SMPL.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.42    | 0.43    | 0.44    | 0.43       | 1.92    | ppb   |
| Vanadium  | 51-2  | 12.30   | 12.06   | 12.20   | 12.19      | 0.96    | ppb   |
| Yttrium   | 89-1  |         |         |         | 103        |         | %     |
| Yttrium   | 89-2  |         |         |         | 102        |         | %     |
| Zinc      | 66-2  | 1413.43 | 1415.23 | 1417.66 | 1415.44    | 0.15    | ppb   |
| Zirconium | 90-1  | 1.96    | 1.94    | 1.90    | 1.93       | 1.41    | ppb   |
| Zirconium | 91-1  | 2.04    | 2.04    | 2.03    | 2.04       | 0.25    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

P5248-03

Instrumnet Name :

P7

Client Sample ID :

MJNKD0S

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 18:02:51

DataFile Name :

036SMPL.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Aluminium  | 27-2  | 15864.45  | 15785.86  | 15524.10  | 15724.80   | 1.13    | ppb   |
| Antimony   | 121-1 | 718.08    | 718.65    | 726.77    | 721.16     | 0.67    | ppb   |
| Arsenic    | 75-2  | 1588.54   | 1551.73   | 1531.55   | 1557.27    | 1.86    | ppb   |
| Barium     | 135-1 | 672.23    | 676.49    | 682.01    | 676.91     | 0.72    | ppb   |
| Barium     | 137-1 | 683.80    | 675.49    | 671.85    | 677.05     | 0.90    | ppb   |
| Beryllium  | 9-1   | 11.58     | 11.92     | 11.72     | 11.74      | 1.47    | ppb   |
| Bismuth    | 209-1 |           |           |           | 113        |         | %     |
| Bismuth    | 209-2 |           |           |           | 108        |         | %     |
| Bromine    | 81-1  |           |           |           |            |         | cps   |
| Bromine    | 81-2  |           |           |           |            |         | cps   |
| Cadmium    | 108-1 | 15.28     | 15.07     | 15.52     | 15.29      | 1.48    | ppb   |
| Cadmium    | 106-1 | 15.87     | 14.95     | 15.65     | 15.49      | 3.09    | ppb   |
| Cadmium    | 111-1 | 12.09     | 11.82     | 12.22     | 12.04      | 1.68    | ppb   |
| Calcium    | 43-1  | 13751.92  | 13746.15  | 13749.20  | 13749.09   | 0.02    | ppb   |
| Calcium    | 44-1  | 13186.53  | 13263.52  | 13136.43  | 13195.49   | 0.49    | ppb   |
| Carbon     | 12-1  |           |           |           |            |         | cps   |
| Carbon     | 12-2  |           |           |           |            |         | cps   |
| Chlorine   | 35-1  |           |           |           |            |         | cps   |
| Chlorine   | 35-2  |           |           |           |            |         | cps   |
| Chromium   | 52-2  | 83.11     | 83.43     | 83.44     | 83.33      | 0.22    | ppb   |
| Cobalt     | 59-2  | 274.09    | 267.94    | 269.50    | 270.51     | 1.18    | ppb   |
| Copper     | 63-2  | 1063.14   | 1045.11   | 1042.23   | 1050.16    | 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 |           |           |           | 109        |         | %     |
| Holmium    | 165-2 |           |           |           | 108        |         | %     |
| Indium     | 115-1 |           |           |           | 114        |         | %     |
| Indium     | 115-2 |           |           |           | 112        |         | %     |
| Iron       | 56-2  | 100198.97 | 100884.15 | 99899.58  | 100327.57  | 0.50    | ppb   |
| Iron       | 57-2  | 99581.41  | 98383.37  | 97031.53  | 98332.10   | 1.30    | ppb   |
| Iron       | 54-2  | 100319.44 | 99555.22  | 100485.37 | 100120.01  | 0.50    | ppb   |
| Krypton    | 83-1  |           |           |           |            |         | cps   |

|                        |                     |                   |           |
|------------------------|---------------------|-------------------|-----------|
| LB Number :            | LB134060            | Operator :        | Jaswal    |
| Lab Sample ID :        | P5248-03            | Instrumnet Name : | P7        |
| Client Sample ID :     | MJNKD0S             | Dilution Factor : | 1         |
| Date & Time Acquired : | 2024-12-21 18:02:51 | DataFile Name :   | 036SMPL.d |

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Lead       | 206-1 | 1519.04  | 1547.98  | 1536.48  | 1534.50    | 0.95    | ppb   |
| Lead       | 207-1 | 1533.26  | 1552.86  | 1536.85  | 1540.99    | 0.68    | ppb   |
| Lead       | 208-1 | 1532.95  | 1557.08  | 1532.54  | 1540.86    | 0.91    | ppb   |
| Lithium    | 6-1   |          |          |          | 100        |         | %     |
| Magnesium  | 24-2  | 9448.55  | 9493.92  | 9277.87  | 9406.78    | 1.21    | ppb   |
| Manganese  | 55-2  | 778.25   | 784.84   | 783.76   | 782.28     | 0.45    | ppb   |
| Molybdenum | 94-1  | 33.35    | 34.26    | 33.97    | 33.86      | 1.36    | ppb   |
| Molybdenum | 95-1  | 20.74    | 20.82    | 20.92    | 20.83      | 0.43    | ppb   |
| Molybdenum | 96-1  | 22.53    | 23.15    | 22.87    | 22.85      | 1.34    | ppb   |
| Molybdenum | 97-1  | 20.52    | 20.87    | 20.87    | 20.75      | 0.98    | ppb   |
| Molybdenum | 98-1  | 20.56    | 20.75    | 20.68    | 20.67      | 0.46    | ppb   |
| Neodymium  | 150-1 |          |          |          |            |         | cps   |
| Neodymium  | 150-2 |          |          |          |            |         | cps   |
| Nickel     | 60-2  | 150.13   | 149.81   | 147.24   | 149.06     | 1.06    | ppb   |
| Phosphorus | 31-2  | 1372.86  | 1409.15  | 1374.47  | 1385.49    | 1.48    | ppb   |
| Potassium  | 39-2  | 4116.42  | 4071.22  | 4081.24  | 4089.63    | 0.58    | ppb   |
| Rhodium    | 103-1 |          |          |          | 103        |         | %     |
| Rhodium    | 103-2 |          |          |          | 104        |         | %     |
| Scandium   | 45-1  |          |          |          | 102        |         | %     |
| Scandium   | 45-2  |          |          |          | 103        |         | %     |
| Selenium   | 82-1  | 23.04    | 22.73    | 22.71    | 22.83      | 0.80    | ppb   |
| Selenium   | 77-2  | 30.04    | 25.04    | 27.09    | 27.39      | 9.19    | ppb   |
| Selenium   | 78-2  | 23.24    | 24.27    | 23.21    | 23.58      | 2.56    | ppb   |
| Silicon    | 28-1  | 1663.05  | 1696.85  | 1681.00  | 1680.30    | 1.01    | ppb   |
| Silver     | 107-1 | 13.37    | 13.33    | 13.46    | 13.39      | 0.52    | ppb   |
| Silver     | 109-1 | 13.26    | 13.38    | 13.47    | 13.37      | 0.82    | ppb   |
| Sodium     | 23-2  | 12165.54 | 12114.06 | 12063.72 | 12114.44   | 0.42    | ppb   |
| Strontium  | 86-1  | 2802.88  | 2861.21  | 2826.24  | 2830.11    | 1.04    | ppb   |
| Strontium  | 88-1  | 2904.29  | 2950.18  | 2911.67  | 2922.04    | 0.84    | ppb   |
| Sulfur     | 34-1  | 1813.94  | 1758.95  | 1721.77  | 1764.89    | 2.63    | ppb   |
| Terbium    | 159-1 |          |          |          | 110        |         | %     |
| Terbium    | 159-2 |          |          |          | 106        |         | %     |
| Thallium   | 203-1 | 9.75     | 9.85     | 9.85     | 9.82       | 0.62    | ppb   |
| Thallium   | 205-1 | 9.64     | 9.80     | 9.91     | 9.78       | 1.39    | ppb   |
| Tin        | 118-1 | 217.71   | 215.45   | 215.22   | 216.12     | 0.64    | ppb   |
| Titanium   | 47-1  | 695.97   | 688.89   | 693.94   | 692.93     | 0.53    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

P5248-03

Instrumnet Name :

P7

Client Sample ID :

MJNKD0S

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 18:02:51

DataFile Name :

036SMPL.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 2.04    | 2.08    | 2.08    | 2.07       | 1.16    | ppb   |
| Vanadium  | 51-2  | 160.57  | 157.38  | 157.93  | 158.62     | 1.07    | ppb   |
| Yttrium   | 89-1  |         |         |         | 109        |         | %     |
| Yttrium   | 89-2  |         |         |         | 106        |         | %     |
| Zinc      | 66-2  | 6977.08 | 6895.51 | 6835.82 | 6902.80    | 1.03    | ppb   |
| Zirconium | 90-1  | 9.21    | 9.44    | 9.26    | 9.31       | 1.29    | ppb   |
| Zirconium | 91-1  | 9.56    | 9.65    | 9.74    | 9.65       | 0.91    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

P5249-01

Instrumnet Name :

P7

Client Sample ID :

MJNKG0

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 18:05:49

DataFile Name :

037SMPL.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Aluminium  | 27-2  | 11374.16 | 11763.53 | 12116.20 | 11751.30   | 3.16    | ppb   |
| Antimony   | 121-1 | 261.72   | 294.61   | 292.23   | 282.85     | 6.48    | ppb   |
| Arsenic    | 75-2  | 516.75   | 542.06   | 550.40   | 536.40     | 3.27    | ppb   |
| Barium     | 135-1 | 95.70    | 107.70   | 108.74   | 104.04     | 6.97    | ppb   |
| Barium     | 137-1 | 97.02    | 107.75   | 109.86   | 104.87     | 6.57    | ppb   |
| Beryllium  | 9-1   | 0.36     | 0.41     | 0.45     | 0.41       | 11.91   | ppb   |
| Bismuth    | 209-1 |          |          |          | 118        |         | %     |
| Bismuth    | 209-2 |          |          |          | 109        |         | %     |
| Bromine    | 81-1  |          |          |          |            |         | cps   |
| Bromine    | 81-2  |          |          |          |            |         | cps   |
| Cadmium    | 108-1 | 2.38     | 2.39     | 2.57     | 2.45       | 4.41    | ppb   |
| Cadmium    | 106-1 | 1.79     | 2.05     | 2.00     | 1.94       | 7.02    | ppb   |
| Cadmium    | 111-1 | 1.20     | 1.36     | 1.48     | 1.35       | 10.39   | ppb   |
| Calcium    | 43-1  | 8290.42  | 9560.44  | 9537.95  | 9129.60    | 7.96    | ppb   |
| Calcium    | 44-1  | 8030.43  | 9161.96  | 9107.46  | 8766.62    | 7.28    | ppb   |
| Carbon     | 12-1  |          |          |          |            |         | cps   |
| Carbon     | 12-2  |          |          |          |            |         | cps   |
| Chlorine   | 35-1  |          |          |          |            |         | cps   |
| Chlorine   | 35-2  |          |          |          |            |         | cps   |
| Chromium   | 52-2  | 33.19    | 35.26    | 35.46    | 34.64      | 3.63    | ppb   |
| Cobalt     | 59-2  | 57.16    | 60.69    | 61.25    | 59.70      | 3.72    | ppb   |
| Copper     | 63-2  | 334.70   | 359.34   | 358.44   | 350.83     | 3.98    | 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 |          |          |          | 110        |         | %     |
| Indium     | 115-1 |          |          |          | 115        |         | %     |
| Indium     | 115-2 |          |          |          | 108        |         | %     |
| Iron       | 56-2  | 47395.38 | 50233.38 | 50841.93 | 49490.23   | 3.72    | ppb   |
| Iron       | 57-2  | 46479.70 | 48914.73 | 49880.24 | 48424.89   | 3.62    | ppb   |
| Iron       | 54-2  | 46907.81 | 49755.11 | 51050.39 | 49237.77   | 4.30    | ppb   |
| Krypton    | 83-1  |          |          |          |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5249-01 Instrumnet Name : P7  
Client Sample ID : MJNKG0 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:05:49 DataFile Name : 037SMPL.d

| Parameter  | Mass  | ConRep1 | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|----------|----------|------------|---------|-------|
| Lead       | 206-1 | 543.22  | 619.92   | 610.12   | 591.09     | 7.06    | ppb   |
| Lead       | 207-1 | 544.23  | 610.00   | 607.77   | 587.33     | 6.36    | ppb   |
| Lead       | 208-1 | 539.52  | 611.48   | 606.54   | 585.84     | 6.86    | ppb   |
| Lithium    | 6-1   |         |          |          | 103        |         | %     |
| Magnesium  | 24-2  | 7582.47 | 7978.67  | 8061.17  | 7874.10    | 3.25    | ppb   |
| Manganese  | 55-2  | 467.18  | 487.11   | 507.21   | 487.16     | 4.11    | ppb   |
| Molybdenum | 94-1  | 10.96   | 12.13    | 12.26    | 11.78      | 6.09    | ppb   |
| Molybdenum | 95-1  | 7.36    | 8.37     | 8.50     | 8.08       | 7.76    | ppb   |
| Molybdenum | 96-1  | 8.04    | 9.11     | 9.18     | 8.78       | 7.30    | ppb   |
| Molybdenum | 97-1  | 7.45    | 8.34     | 8.39     | 8.06       | 6.52    | ppb   |
| Molybdenum | 98-1  | 7.33    | 8.35     | 8.45     | 8.04       | 7.75    | ppb   |
| Neodymium  | 150-1 |         |          |          |            |         | cps   |
| Neodymium  | 150-2 |         |          |          |            |         | cps   |
| Nickel     | 60-2  | 37.56   | 40.25    | 40.78    | 39.53      | 4.38    | ppb   |
| Phosphorus | 31-2  | 912.93  | 987.18   | 955.25   | 951.78     | 3.91    | ppb   |
| Potassium  | 39-2  | 2862.66 | 3007.06  | 3003.15  | 2957.62    | 2.78    | ppb   |
| Rhodium    | 103-1 |         |          |          | 109        |         | %     |
| Rhodium    | 103-2 |         |          |          | 106        |         | %     |
| Scandium   | 45-1  |         |          |          | 107        |         | %     |
| Scandium   | 45-2  |         |          |          | 106        |         | %     |
| Selenium   | 82-1  | 1.45    | 1.17     | 0.93     | 1.18       | 22.26   | ppb   |
| Selenium   | 77-2  | 3.52    | 4.55     | 4.02     | 4.03       | 12.78   | ppb   |
| Selenium   | 78-2  | 0.53    | 2.11     | 2.30     | 1.65       | 58.94   | ppb   |
| Silicon    | 28-1  | 1063.89 | 1246.24  | 1252.55  | 1187.56    | 9.02    | ppb   |
| Silver     | 107-1 | 0.92    | 1.00     | 1.01     | 0.97       | 5.16    | ppb   |
| Silver     | 109-1 | 0.93    | 0.98     | 0.98     | 0.96       | 2.97    | ppb   |
| Sodium     | 23-2  | 9577.73 | 10103.36 | 10322.71 | 10001.27   | 3.83    | ppb   |
| Strontium  | 86-1  | 1578.50 | 1790.19  | 1821.76  | 1730.15    | 7.65    | ppb   |
| Strontium  | 88-1  | 1645.80 | 1841.88  | 1876.71  | 1788.13    | 6.96    | ppb   |
| Sulfur     | 34-1  | 332.69  | 970.18   | 876.53   | 726.46     | 47.38   | ppb   |
| Terbium    | 159-1 |         |          |          | 116        |         | %     |
| Terbium    | 159-2 |         |          |          | 109        |         | %     |
| Thallium   | 203-1 | 0.33    | 0.40     | 0.40     | 0.38       | 9.88    | ppb   |
| Thallium   | 205-1 | 0.35    | 0.41     | 0.41     | 0.39       | 9.11    | ppb   |
| Tin        | 118-1 | 59.01   | 66.14    | 67.07    | 64.07      | 6.88    | ppb   |
| Titanium   | 47-1  | 455.85  | 526.04   | 525.92   | 502.60     | 8.06    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

P5249-01

Instrumnet Name :

P7

Client Sample ID :

MJNKG0

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 18:05:49

DataFile Name :

037SMPL.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 1.09    | 1.25    | 1.24    | 1.19       | 7.73    | ppb   |
| Vanadium  | 51-2  | 48.24   | 50.87   | 51.03   | 50.04      | 3.13    | ppb   |
| Yttrium   | 89-1  |         |         |         | 114        |         | %     |
| Yttrium   | 89-2  |         |         |         | 108        |         | %     |
| Zinc      | 66-2  | 2559.34 | 2755.71 | 2801.31 | 2705.45    | 4.75    | ppb   |
| Zirconium | 90-1  | 2.57    | 2.95    | 3.09    | 2.87       | 9.33    | ppb   |
| Zirconium | 91-1  | 2.66    | 3.15    | 3.11    | 2.97       | 9.13    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

P5249-02

Instrumnet Name :

P7

Client Sample ID :

MJNKG0D

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 18:08:49

DataFile Name :

038SMPL.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Aluminium  | 27-2  | 10358.39 | 10343.74 | 10411.90 | 10371.34   | 0.35    | ppb   |
| Antimony   | 121-1 | 261.80   | 263.49   | 265.87   | 263.72     | 0.78    | ppb   |
| Arsenic    | 75-2  | 478.89   | 481.10   | 477.87   | 479.29     | 0.34    | ppb   |
| Barium     | 135-1 | 95.49    | 95.69    | 95.27    | 95.48      | 0.22    | ppb   |
| Barium     | 137-1 | 95.95    | 96.86    | 97.18    | 96.66      | 0.66    | ppb   |
| Beryllium  | 9-1   | 0.37     | 0.52     | 0.45     | 0.45       | 16.35   | ppb   |
| Bismuth    | 209-1 |          |          |          | 113        |         | %     |
| Bismuth    | 209-2 |          |          |          | 107        |         | %     |
| Bromine    | 81-1  |          |          |          |            |         | cps   |
| Bromine    | 81-2  |          |          |          |            |         | cps   |
| Cadmium    | 108-1 | 2.24     | 2.34     | 2.11     | 2.23       | 5.01    | ppb   |
| Cadmium    | 106-1 | 2.22     | 1.98     | 1.62     | 1.94       | 15.77   | ppb   |
| Cadmium    | 111-1 | 1.32     | 1.32     | 1.25     | 1.30       | 3.21    | ppb   |
| Calcium    | 43-1  | 9512.30  | 9483.00  | 9623.08  | 9539.46    | 0.77    | ppb   |
| Calcium    | 44-1  | 9228.11  | 9119.85  | 9463.63  | 9270.53    | 1.90    | ppb   |
| Carbon     | 12-1  |          |          |          |            |         | cps   |
| Carbon     | 12-2  |          |          |          |            |         | cps   |
| Chlorine   | 35-1  |          |          |          |            |         | cps   |
| Chlorine   | 35-2  |          |          |          |            |         | cps   |
| Chromium   | 52-2  | 30.73    | 30.32    | 30.11    | 30.39      | 1.04    | ppb   |
| Cobalt     | 59-2  | 57.05    | 57.53    | 56.73    | 57.11      | 0.71    | ppb   |
| Copper     | 63-2  | 336.57   | 337.37   | 333.78   | 335.91     | 0.56    | 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 |          |          |          | 111        |         | %     |
| Holmium    | 165-2 |          |          |          | 108        |         | %     |
| Indium     | 115-1 |          |          |          | 109        |         | %     |
| Indium     | 115-2 |          |          |          | 107        |         | %     |
| Iron       | 56-2  | 45568.72 | 45937.72 | 44859.98 | 45455.48   | 1.20    | ppb   |
| Iron       | 57-2  | 45045.12 | 44320.69 | 43979.83 | 44448.55   | 1.22    | ppb   |
| Iron       | 54-2  | 45259.71 | 45041.68 | 44654.30 | 44985.23   | 0.68    | ppb   |
| Krypton    | 83-1  |          |          |          |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5249-02 Instrumnet Name : P7  
Client Sample ID : MJNKG0D Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:08:49 DataFile Name : 038SMPL.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 543.87  | 547.59  | 541.41  | 544.29     | 0.57    | ppb   |
| Lead       | 207-1 | 555.71  | 552.94  | 548.75  | 552.47     | 0.63    | ppb   |
| Lead       | 208-1 | 545.96  | 547.48  | 542.76  | 545.40     | 0.44    | ppb   |
| Lithium    | 6-1   |         |         |         | 96         |         | %     |
| Magnesium  | 24-2  | 7098.17 | 7227.77 | 7149.40 | 7158.45    | 0.91    | ppb   |
| Manganese  | 55-2  | 446.34  | 433.60  | 435.94  | 438.63     | 1.55    | ppb   |
| Molybdenum | 94-1  | 10.37   | 10.34   | 10.16   | 10.29      | 1.09    | ppb   |
| Molybdenum | 95-1  | 7.09    | 7.18    | 7.13    | 7.13       | 0.63    | ppb   |
| Molybdenum | 96-1  | 7.82    | 7.79    | 7.75    | 7.79       | 0.44    | ppb   |
| Molybdenum | 97-1  | 7.14    | 7.18    | 6.97    | 7.10       | 1.52    | ppb   |
| Molybdenum | 98-1  | 7.05    | 7.20    | 7.02    | 7.09       | 1.36    | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | 36.70   | 36.52   | 36.10   | 36.44      | 0.85    | ppb   |
| Phosphorus | 31-2  | 901.45  | 882.93  | 904.30  | 896.23     | 1.29    | ppb   |
| Potassium  | 39-2  | 2738.83 | 2704.47 | 2697.33 | 2713.54    | 0.82    | ppb   |
| Rhodium    | 103-1 |         |         |         | 104        |         | %     |
| Rhodium    | 103-2 |         |         |         | 105        |         | %     |
| Scandium   | 45-1  |         |         |         | 103        |         | %     |
| Scandium   | 45-2  |         |         |         | 102        |         | %     |
| Selenium   | 82-1  | 0.88    | 0.87    | 0.54    | 0.76       | 25.00   | ppb   |
| Selenium   | 77-2  | 3.25    | 5.56    | 4.40    | 4.40       | 26.34   | ppb   |
| Selenium   | 78-2  | 2.44    | 1.78    | 1.49    | 1.90       | 25.72   | ppb   |
| Silicon    | 28-1  | 1127.25 | 1144.86 | 1120.70 | 1130.94    | 1.10    | ppb   |
| Silver     | 107-1 | 0.91    | 0.92    | 0.89    | 0.90       | 1.92    | ppb   |
| Silver     | 109-1 | 0.88    | 0.92    | 0.88    | 0.89       | 2.87    | ppb   |
| Sodium     | 23-2  | 9426.65 | 9527.87 | 9335.73 | 9430.09    | 1.02    | ppb   |
| Strontium  | 86-1  | 1667.31 | 1710.99 | 1665.52 | 1681.28    | 1.53    | ppb   |
| Strontium  | 88-1  | 1730.11 | 1767.24 | 1708.07 | 1735.14    | 1.72    | ppb   |
| Sulfur     | 34-1  | 705.56  | 647.82  | 728.69  | 694.02     | 6.00    | ppb   |
| Terbium    | 159-1 |         |         |         | 111        |         | %     |
| Terbium    | 159-2 |         |         |         | 107        |         | %     |
| Thallium   | 203-1 | 0.34    | 0.35    | 0.36    | 0.35       | 2.42    | ppb   |
| Thallium   | 205-1 | 0.33    | 0.35    | 0.35    | 0.34       | 3.06    | ppb   |
| Tin        | 118-1 | 59.66   | 59.91   | 59.31   | 59.63      | 0.51    | ppb   |
| Titanium   | 47-1  | 440.69  | 442.55  | 446.44  | 443.22     | 0.66    | ppb   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5249-02 Instrumnet Name : P7  
Client Sample ID : MJNKG0D Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:08:49 DataFile Name : 038SMPL.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 1.09    | 1.12    | 1.10    | 1.10       | 1.40    | ppb   |
| Vanadium  | 51-2  | 44.64   | 45.12   | 44.30   | 44.69      | 0.93    | ppb   |
| Yttrium   | 89-1  |         |         |         | 110        |         | %     |
| Yttrium   | 89-2  |         |         |         | 106        |         | %     |
| Zinc      | 66-2  | 2560.14 | 2583.78 | 2505.01 | 2549.64    | 1.59    | ppb   |
| Zirconium | 90-1  | 2.48    | 2.51    | 2.48    | 2.49       | 0.59    | ppb   |
| Zirconium | 91-1  | 2.61    | 2.52    | 2.53    | 2.55       | 2.04    | ppb   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :P5249-01LX5Instrumnet Name :P7

Client Sample ID :MJNKG0LDilution Factor :5

Date & Time Acquired :2024-12-21 18:11:51DataFile Name :039SMPL.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Aluminium  | 27-2  | 2543.64  | 2538.75  | 2553.95  | 2545.45    | 0.30    | ppb   |
| Antimony   | 121-1 | 59.71    | 60.03    | 60.82    | 60.19      | 0.94    | ppb   |
| Arsenic    | 75-2  | 119.24   | 118.54   | 121.47   | 119.75     | 1.28    | ppb   |
| Barium     | 135-1 | 23.16    | 23.19    | 23.36    | 23.24      | 0.45    | ppb   |
| Barium     | 137-1 | 23.09    | 23.25    | 23.78    | 23.37      | 1.55    | ppb   |
| Beryllium  | 9-1   | 0.09     | 0.11     | 0.10     | 0.10       | 7.61    | ppb   |
| Bismuth    | 209-1 |          |          |          | 110        |         | %     |
| Bismuth    | 209-2 |          |          |          | 105        |         | %     |
| Bromine    | 81-1  |          |          |          |            |         | cps   |
| Bromine    | 81-2  |          |          |          |            |         | cps   |
| Cadmium    | 108-1 | 0.58     | 0.40     | 0.54     | 0.51       | 18.49   | ppb   |
| Cadmium    | 106-1 | -0.19    | 0.10     | -0.20    | -0.10      |         | ppb   |
| Cadmium    | 111-1 | 0.28     | 0.30     | 0.28     | 0.28       | 3.83    | ppb   |
| Calcium    | 43-1  | 2017.62  | 2041.43  | 2063.84  | 2040.96    | 1.13    | ppb   |
| Calcium    | 44-1  | 2035.74  | 2043.69  | 2063.53  | 2047.65    | 0.70    | ppb   |
| Carbon     | 12-1  |          |          |          |            |         | cps   |
| Carbon     | 12-2  |          |          |          |            |         | cps   |
| Chlorine   | 35-1  |          |          |          |            |         | cps   |
| Chlorine   | 35-2  |          |          |          |            |         | cps   |
| Chromium   | 52-2  | 7.68     | 7.79     | 7.71     | 7.72       | 0.77    | ppb   |
| Cobalt     | 59-2  | 13.22    | 13.16    | 13.25    | 13.21      | 0.35    | ppb   |
| Copper     | 63-2  | 75.07    | 75.41    | 75.73    | 75.40      | 0.43    | 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 |          |          |          | 106        |         | %     |
| Indium     | 115-1 |          |          |          | 104        |         | %     |
| Indium     | 115-2 |          |          |          | 102        |         | %     |
| Iron       | 56-2  | 11007.23 | 11018.68 | 10939.59 | 10988.50   | 0.39    | ppb   |
| Iron       | 57-2  | 10770.83 | 10772.88 | 10912.44 | 10818.72   | 0.75    | ppb   |
| Iron       | 54-2  | 10867.06 | 10949.36 | 10959.76 | 10925.40   | 0.46    | ppb   |
| Krypton    | 83-1  |          |          |          |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5249-01LX5 Instrumnet Name : P7  
Client Sample ID : MJNKG0L Dilution Factor : 5  
Date & Time Acquired : 2024-12-21 18:11:51 DataFile Name : 039SMPL.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 122.23  | 120.42  | 121.43  | 121.36     | 0.75    | ppb   |
| Lead       | 207-1 | 120.26  | 119.73  | 120.03  | 120.00     | 0.22    | ppb   |
| Lead       | 208-1 | 127.67  | 126.15  | 127.24  | 127.02     | 0.62    | ppb   |
| Lithium    | 6-1   |         |         |         | 93         |         | %     |
| Magnesium  | 24-2  | 1676.86 | 1674.40 | 1695.45 | 1682.24    | 0.68    | ppb   |
| Manganese  | 55-2  | 105.64  | 105.21  | 106.10  | 105.65     | 0.42    | ppb   |
| Molybdenum | 94-1  | 2.66    | 2.73    | 2.66    | 2.68       | 1.47    | ppb   |
| Molybdenum | 95-1  | 1.88    | 1.83    | 1.81    | 1.84       | 1.97    | ppb   |
| Molybdenum | 96-1  | 2.02    | 2.03    | 1.98    | 2.01       | 1.34    | ppb   |
| Molybdenum | 97-1  | 1.82    | 1.93    | 1.87    | 1.87       | 2.94    | ppb   |
| Molybdenum | 98-1  | 1.82    | 1.81    | 1.84    | 1.82       | 0.86    | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | 8.70    | 8.76    | 8.96    | 8.81       | 1.58    | ppb   |
| Phosphorus | 31-2  | 204.03  | 217.53  | 197.46  | 206.34     | 4.96    | ppb   |
| Potassium  | 39-2  | 660.93  | 660.29  | 663.86  | 661.69     | 0.29    | ppb   |
| Rhodium    | 103-1 |         |         |         | 103        |         | %     |
| Rhodium    | 103-2 |         |         |         | 104        |         | %     |
| Scandium   | 45-1  |         |         |         | 99         |         | %     |
| Scandium   | 45-2  |         |         |         | 100        |         | %     |
| Selenium   | 82-1  | 0.40    | 0.60    | -0.04   | 0.32       | 101.32  | ppb   |
| Selenium   | 77-2  | 0.70    | 1.31    | 1.48    | 1.17       | 35.07   | ppb   |
| Selenium   | 78-2  | 1.20    | 0.10    | 0.94    | 0.75       | 77.53   | ppb   |
| Silicon    | 28-1  | 270.50  | 266.91  | 271.37  | 269.59     | 0.88    | ppb   |
| Silver     | 107-1 | 0.21    | 0.21    | 0.23    | 0.22       | 6.36    | ppb   |
| Silver     | 109-1 | 0.22    | 0.21    | 0.22    | 0.22       | 2.95    | ppb   |
| Sodium     | 23-2  | 2297.18 | 2252.31 | 2235.79 | 2261.76    | 1.40    | ppb   |
| Strontium  | 86-1  | 404.64  | 401.35  | 395.79  | 400.59     | 1.12    | ppb   |
| Strontium  | 88-1  | 393.17  | 393.82  | 397.13  | 394.70     | 0.54    | ppb   |
| Sulfur     | 34-1  | -837.66 | -735.00 | -731.97 | -768.21    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 108        |         | %     |
| Terbium    | 159-2 |         |         |         | 104        |         | %     |
| Thallium   | 203-1 | 0.10    | 0.09    | 0.09    | 0.09       | 5.65    | ppb   |
| Thallium   | 205-1 | 0.10    | 0.10    | 0.09    | 0.10       | 3.79    | ppb   |
| Tin        | 118-1 | 14.33   | 14.19   | 14.52   | 14.35      | 1.16    | ppb   |
| Titanium   | 47-1  | 112.21  | 112.80  | 115.00  | 113.34     | 1.30    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

P5249-01LX5

Instrumnet Name :

P7

Client Sample ID :

MJNKG0L

Dilution Factor :

5

Date & Time Acquired :

2024-12-21 18:11:51

DataFile Name :

039SMPL.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.26    | 0.26    | 0.26    | 0.26       | 0.95    | ppb   |
| Vanadium  | 51-2  | 10.96   | 10.75   | 11.25   | 10.98      | 2.28    | ppb   |
| Yttrium   | 89-1  |         |         |         | 103        |         | %     |
| Yttrium   | 89-2  |         |         |         | 101        |         | %     |
| Zinc      | 66-2  | 573.85  | 573.40  | 580.58  | 575.94     | 0.70    | ppb   |
| Zirconium | 90-1  | 0.62    | 0.63    | 0.65    | 0.63       | 3.12    | ppb   |
| Zirconium | 91-1  | 0.67    | 0.67    | 0.64    | 0.66       | 2.09    | ppb   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :P5249-03Instrumnet Name :P7

Client Sample ID :MJNKG0SDilution Factor :1

Date & Time Acquired :2024-12-21 18:15:03DataFile Name :040SMPL.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Aluminium  | 27-2  | 11234.85 | 11433.33 | 11361.20 | 11343.13   | 0.89    | ppb   |
| Antimony   | 121-1 | 288.33   | 299.93   | 300.01   | 296.09     | 2.27    | ppb   |
| Arsenic    | 75-2  | 512.56   | 514.08   | 514.32   | 513.65     | 0.19    | ppb   |
| Barium     | 135-1 | 506.65   | 527.33   | 526.41   | 520.13     | 2.25    | ppb   |
| Barium     | 137-1 | 515.26   | 531.08   | 531.45   | 525.93     | 1.76    | ppb   |
| Beryllium  | 9-1   | 11.43    | 11.78    | 11.83    | 11.68      | 1.90    | ppb   |
| Bismuth    | 209-1 |          |          |          | 114        |         | %     |
| Bismuth    | 209-2 |          |          |          | 107        |         | %     |
| Bromine    | 81-1  |          |          |          |            |         | cps   |
| Bromine    | 81-2  |          |          |          |            |         | cps   |
| Cadmium    | 108-1 | 11.05    | 12.23    | 11.83    | 11.70      | 5.16    | ppb   |
| Cadmium    | 106-1 | 11.65    | 11.15    | 11.59    | 11.46      | 2.40    | ppb   |
| Cadmium    | 111-1 | 10.30    | 10.52    | 10.61    | 10.48      | 1.56    | ppb   |
| Calcium    | 43-1  | 8736.07  | 8777.88  | 8953.97  | 8822.64    | 1.31    | ppb   |
| Calcium    | 44-1  | 8444.44  | 8597.03  | 8630.89  | 8557.45    | 1.16    | ppb   |
| Carbon     | 12-1  |          |          |          |            |         | cps   |
| Carbon     | 12-2  |          |          |          |            |         | cps   |
| Chlorine   | 35-1  |          |          |          |            |         | cps   |
| Chlorine   | 35-2  |          |          |          |            |         | cps   |
| Chromium   | 52-2  | 73.19    | 74.43    | 74.08    | 73.90      | 0.87    | ppb   |
| Cobalt     | 59-2  | 158.46   | 158.89   | 160.63   | 159.32     | 0.72    | ppb   |
| Copper     | 63-2  | 396.68   | 391.10   | 386.05   | 391.28     | 1.36    | 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 |          |          |          | 108        |         | %     |
| Indium     | 115-1 |          |          |          | 108        |         | %     |
| Indium     | 115-2 |          |          |          | 107        |         | %     |
| Iron       | 56-2  | 46662.53 | 47576.50 | 46796.64 | 47011.89   | 1.05    | ppb   |
| Iron       | 57-2  | 45896.54 | 46145.24 | 46402.70 | 46148.16   | 0.55    | ppb   |
| Iron       | 54-2  | 46770.86 | 47419.98 | 47122.12 | 47104.32   | 0.69    | ppb   |
| Krypton    | 83-1  |          |          |          |            |         | cps   |

|                        |                     |                   |           |
|------------------------|---------------------|-------------------|-----------|
| LB Number :            | LB134060            | Operator :        | Jaswal    |
| Lab Sample ID :        | P5249-03            | Instrumnet Name : | P7        |
| Client Sample ID :     | MJNKG0S             | Dilution Factor : | 1         |
| Date & Time Acquired : | 2024-12-21 18:15:03 | DataFile Name :   | 040SMPL.d |

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 562.15  | 564.19  | 560.66  | 562.33     | 0.31    | ppb   |
| Lead       | 207-1 | 567.50  | 570.92  | 555.07  | 564.50     | 1.48    | ppb   |
| Lead       | 208-1 | 561.80  | 567.23  | 557.10  | 562.04     | 0.90    | ppb   |
| Lithium    | 6-1   |         |         |         | 95         |         | %     |
| Magnesium  | 24-2  | 7347.07 | 7469.19 | 7337.64 | 7384.63    | 0.99    | ppb   |
| Manganese  | 55-2  | 566.10  | 562.52  | 556.53  | 561.72     | 0.86    | ppb   |
| Molybdenum | 94-1  | 10.86   | 11.30   | 11.39   | 11.18      | 2.51    | ppb   |
| Molybdenum | 95-1  | 7.49    | 7.87    | 7.81    | 7.72       | 2.65    | ppb   |
| Molybdenum | 96-1  | 8.20    | 8.57    | 8.39    | 8.39       | 2.17    | ppb   |
| Molybdenum | 97-1  | 7.47    | 7.78    | 7.76    | 7.67       | 2.22    | ppb   |
| Molybdenum | 98-1  | 7.42    | 7.76    | 7.68    | 7.62       | 2.29    | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | 140.10  | 140.03  | 141.22  | 140.45     | 0.47    | ppb   |
| Phosphorus | 31-2  | 907.93  | 930.48  | 893.10  | 910.50     | 2.07    | ppb   |
| Potassium  | 39-2  | 2761.74 | 2825.30 | 2831.03 | 2806.02    | 1.37    | ppb   |
| Rhodium    | 103-1 |         |         |         | 104        |         | %     |
| Rhodium    | 103-2 |         |         |         | 104        |         | %     |
| Scandium   | 45-1  |         |         |         | 104        |         | %     |
| Scandium   | 45-2  |         |         |         | 102        |         | %     |
| Selenium   | 82-1  | 21.23   | 21.89   | 22.03   | 21.72      | 1.98    | ppb   |
| Selenium   | 77-2  | 25.25   | 27.25   | 22.28   | 24.92      | 10.03   | ppb   |
| Selenium   | 78-2  | 21.31   | 22.06   | 22.91   | 22.09      | 3.62    | ppb   |
| Silicon    | 28-1  | 1174.23 | 1134.09 | 1157.76 | 1155.36    | 1.75    | ppb   |
| Silver     | 107-1 | 10.87   | 11.28   | 11.48   | 11.21      | 2.75    | ppb   |
| Silver     | 109-1 | 10.91   | 11.27   | 11.32   | 11.17      | 2.01    | ppb   |
| Sodium     | 23-2  | 9364.75 | 9541.96 | 9507.70 | 9471.47    | 0.99    | ppb   |
| Strontium  | 86-1  | 1637.62 | 1695.79 | 1686.85 | 1673.42    | 1.87    | ppb   |
| Strontium  | 88-1  | 1698.44 | 1735.47 | 1734.71 | 1722.87    | 1.23    | ppb   |
| Sulfur     | 34-1  | 604.60  | 623.41  | 692.08  | 640.03     | 7.19    | ppb   |
| Terbium    | 159-1 |         |         |         | 111        |         | %     |
| Terbium    | 159-2 |         |         |         | 107        |         | %     |
| Thallium   | 203-1 | 9.50    | 9.50    | 9.30    | 9.44       | 1.21    | ppb   |
| Thallium   | 205-1 | 9.33    | 9.38    | 9.33    | 9.35       | 0.33    | ppb   |
| Tin        | 118-1 | 60.20   | 62.18   | 62.76   | 61.71      | 2.18    | ppb   |
| Titanium   | 47-1  | 468.55  | 474.69  | 475.21  | 472.82     | 0.78    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

P5249-03

Instrumnet Name :

P7

Client Sample ID :

MJNKG0S

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 18:15:03

DataFile Name :

040SMPL.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 1.16    | 1.16    | 1.10    | 1.14       | 2.73    | ppb   |
| Vanadium  | 51-2  | 146.68  | 148.62  | 148.94  | 148.08     | 0.82    | ppb   |
| Yttrium   | 89-1  |         |         |         | 109        |         | %     |
| Yttrium   | 89-2  |         |         |         | 105        |         | %     |
| Zinc      | 66-2  | 2665.34 | 2683.31 | 2707.65 | 2685.44    | 0.79    | ppb   |
| Zirconium | 90-1  | 2.66    | 2.78    | 2.76    | 2.74       | 2.31    | ppb   |
| Zirconium | 91-1  | 2.81    | 2.98    | 2.90    | 2.90       | 2.84    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

P5272-04

Instrumnet Name :

P7

Client Sample ID :

MJNKJ9

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 18:18:03

DataFile Name :

041SMPL.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Aluminium  | 27-2  | 3283.32  | 3302.28  | 3916.60  | 3500.73    | 10.29   | ppb   |
| Antimony   | 121-1 | 5.22     | 5.58     | 5.60     | 5.46       | 3.94    | ppb   |
| Arsenic    | 75-2  | 73.17    | 74.86    | 86.06    | 78.03      | 8.97    | ppb   |
| Barium     | 135-1 | 27.34    | 29.47    | 29.48    | 28.76      | 4.28    | ppb   |
| Barium     | 137-1 | 28.00    | 29.60    | 29.51    | 29.04      | 3.09    | ppb   |
| Beryllium  | 9-1   | 0.18     | 0.17     | 0.15     | 0.17       | 9.29    | ppb   |
| Bismuth    | 209-1 |          |          |          | 116        |         | %     |
| Bismuth    | 209-2 |          |          |          | 103        |         | %     |
| Bromine    | 81-1  |          |          |          |            |         | cps   |
| Bromine    | 81-2  |          |          |          |            |         | cps   |
| Cadmium    | 108-1 | 0.86     | 0.97     | 1.65     | 1.16       | 37.07   | ppb   |
| Cadmium    | 106-1 | 0.34     | 0.18     | 0.20     | 0.24       | 38.11   | ppb   |
| Cadmium    | 111-1 | 0.72     | 0.81     | 0.74     | 0.76       | 6.55    | ppb   |
| Calcium    | 43-1  | 4244.97  | 4598.42  | 4659.46  | 4500.95    | 4.97    | ppb   |
| Calcium    | 44-1  | 4123.60  | 4500.29  | 4411.59  | 4345.16    | 4.53    | ppb   |
| Carbon     | 12-1  |          |          |          |            |         | cps   |
| Carbon     | 12-2  |          |          |          |            |         | cps   |
| Chlorine   | 35-1  |          |          |          |            |         | cps   |
| Chlorine   | 35-2  |          |          |          |            |         | cps   |
| Chromium   | 52-2  | 14.52    | 14.50    | 17.11    | 15.38      | 9.78    | ppb   |
| Cobalt     | 59-2  | 9.38     | 9.32     | 10.96    | 9.89       | 9.38    | ppb   |
| Copper     | 63-2  | 1705.36  | 1682.98  | 2001.26  | 1796.54    | 9.89    | 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 |          |          |          | 113        |         | %     |
| Holmium    | 165-2 |          |          |          | 102        |         | %     |
| Indium     | 115-1 |          |          |          | 108        |         | %     |
| Indium     | 115-2 |          |          |          | 97         |         | %     |
| Iron       | 56-2  | 12026.21 | 12074.63 | 14127.24 | 12742.69   | 9.41    | ppb   |
| Iron       | 57-2  | 11673.68 | 11855.96 | 14206.75 | 12578.80   | 11.23   | ppb   |
| Iron       | 54-2  | 12135.58 | 12099.65 | 14351.15 | 12862.13   | 10.03   | ppb   |
| Krypton    | 83-1  |          |          |          |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5272-04 Instrumnet Name : P7  
Client Sample ID : MJNKJ9 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:18:03 DataFile Name : 041SMPL.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Lead       | 206-1 | 179.98   | 190.62   | 194.93   | 188.51     | 4.08    | ppb   |
| Lead       | 207-1 | 176.66   | 185.57   | 193.88   | 185.37     | 4.65    | ppb   |
| Lead       | 208-1 | 178.75   | 187.36   | 192.29   | 186.13     | 3.68    | ppb   |
| Lithium    | 6-1   |          |          |          | 95         |         | %     |
| Magnesium  | 24-2  | 2570.77  | 2492.50  | 3066.87  | 2710.05    | 11.49   | ppb   |
| Manganese  | 55-2  | 58.03    | 57.76    | 68.29    | 61.36      | 9.79    | ppb   |
| Molybdenum | 94-1  | 2.26     | 2.49     | 2.43     | 2.39       | 4.97    | ppb   |
| Molybdenum | 95-1  | 1.48     | 1.63     | 1.56     | 1.56       | 4.78    | ppb   |
| Molybdenum | 96-1  | 1.70     | 1.76     | 1.72     | 1.73       | 1.58    | ppb   |
| Molybdenum | 97-1  | 1.56     | 1.66     | 1.53     | 1.58       | 4.06    | ppb   |
| Molybdenum | 98-1  | 1.49     | 1.64     | 1.58     | 1.57       | 4.96    | ppb   |
| Neodymium  | 150-1 |          |          |          |            |         | cps   |
| Neodymium  | 150-2 |          |          |          |            |         | cps   |
| Nickel     | 60-2  | 9.80     | 10.03    | 11.99    | 10.61      | 11.36   | ppb   |
| Phosphorus | 31-2  | 995.94   | 1009.33  | 1235.35  | 1080.21    | 12.45   | ppb   |
| Potassium  | 39-2  | 1553.02  | 1560.31  | 1847.30  | 1653.54    | 10.15   | ppb   |
| Rhodium    | 103-1 |          |          |          | 108        |         | %     |
| Rhodium    | 103-2 |          |          |          | 99         |         | %     |
| Scandium   | 45-1  |          |          |          | 103        |         | %     |
| Scandium   | 45-2  |          |          |          | 95         |         | %     |
| Selenium   | 82-1  | 0.25     | 0.68     | 0.46     | 0.46       | 46.41   | ppb   |
| Selenium   | 77-2  | 2.57     | 3.61     | 2.36     | 2.85       | 23.56   | ppb   |
| Selenium   | 78-2  | 1.52     | 1.07     | 3.25     | 1.95       | 59.28   | ppb   |
| Silicon    | 28-1  | 722.82   | 731.16   | 733.77   | 729.25     | 0.78    | ppb   |
| Silver     | 107-1 | 5.48     | 5.86     | 5.87     | 5.73       | 3.87    | ppb   |
| Silver     | 109-1 | 5.47     | 5.83     | 5.85     | 5.72       | 3.75    | ppb   |
| Sodium     | 23-2  | 11674.21 | 11454.45 | 13715.22 | 12281.29   | 10.15   | ppb   |
| Strontium  | 86-1  | 903.05   | 998.97   | 977.49   | 959.84     | 5.24    | ppb   |
| Strontium  | 88-1  | 916.15   | 994.43   | 990.15   | 966.91     | 4.55    | ppb   |
| Sulfur     | 34-1  | 2328.51  | 2869.98  | 2877.34  | 2691.94    | 11.69   | ppb   |
| Terbium    | 159-1 |          |          |          | 113        |         | %     |
| Terbium    | 159-2 |          |          |          | 100        |         | %     |
| Thallium   | 203-1 | 0.35     | 0.38     | 0.37     | 0.37       | 4.54    | ppb   |
| Thallium   | 205-1 | 0.35     | 0.37     | 0.38     | 0.37       | 4.13    | ppb   |
| Tin        | 118-1 | 10.81    | 11.69    | 11.79    | 11.43      | 4.70    | ppb   |
| Titanium   | 47-1  | 169.29   | 181.44   | 181.70   | 177.48     | 3.99    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

P5272-04

Instrumnet Name :

P7

Client Sample ID :

MJNKJ9

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 18:18:03

DataFile Name :

041SMPL.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.85    | 0.93    | 0.94    | 0.91       | 5.54    | ppb   |
| Vanadium  | 51-2  | 14.45   | 14.51   | 17.49   | 15.48      | 11.23   | ppb   |
| Yttrium   | 89-1  |         |         |         | 111        |         | %     |
| Yttrium   | 89-2  |         |         |         | 99         |         | %     |
| Zinc      | 66-2  | 390.80  | 391.28  | 469.83  | 417.30     | 10.90   | ppb   |
| Zirconium | 90-1  | 0.60    | 0.64    | 0.63    | 0.63       | 3.32    | ppb   |
| Zirconium | 91-1  | 0.63    | 0.65    | 0.64    | 0.64       | 0.89    | ppb   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :P5272-05Instrumnet Name :P7

Client Sample ID :MJNKJ9DDilution Factor :1

Date & Time Acquired :2024-12-21 18:21:10DataFile Name :042SMPL.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Aluminium  | 27-2  | 3433.49  | 3395.84  | 3441.72  | 3423.68    | 0.71    | ppb   |
| Antimony   | 121-1 | 5.51     | 5.53     | 5.74     | 5.59       | 2.32    | ppb   |
| Arsenic    | 75-2  | 72.47    | 72.89    | 71.81    | 72.39      | 0.76    | ppb   |
| Barium     | 135-1 | 27.28    | 27.87    | 28.60    | 27.91      | 2.37    | ppb   |
| Barium     | 137-1 | 27.89    | 28.57    | 29.02    | 28.50      | 2.00    | ppb   |
| Beryllium  | 9-1   | 0.13     | 0.16     | 0.16     | 0.15       | 12.81   | ppb   |
| Bismuth    | 209-1 |          |          |          | 115        |         | %     |
| Bismuth    | 209-2 |          |          |          | 108        |         | %     |
| Bromine    | 81-1  |          |          |          |            |         | cps   |
| Bromine    | 81-2  |          |          |          |            |         | cps   |
| Cadmium    | 108-1 | 0.91     | 0.92     | 0.80     | 0.88       | 7.75    | ppb   |
| Cadmium    | 106-1 | 0.03     | 0.73     | -0.25    | 0.17       | 293.68  | ppb   |
| Cadmium    | 111-1 | 0.75     | 0.85     | 0.80     | 0.80       | 6.49    | ppb   |
| Calcium    | 43-1  | 4767.26  | 4842.86  | 4818.66  | 4809.59    | 0.80    | ppb   |
| Calcium    | 44-1  | 4676.14  | 4673.26  | 4656.06  | 4668.49    | 0.23    | ppb   |
| Carbon     | 12-1  |          |          |          |            |         | cps   |
| Carbon     | 12-2  |          |          |          |            |         | cps   |
| Chlorine   | 35-1  |          |          |          |            |         | cps   |
| Chlorine   | 35-2  |          |          |          |            |         | cps   |
| Chromium   | 52-2  | 15.26    | 14.68    | 15.20    | 15.05      | 2.13    | ppb   |
| Cobalt     | 59-2  | 9.36     | 8.99     | 9.34     | 9.23       | 2.28    | ppb   |
| Copper     | 63-2  | 1738.00  | 1673.23  | 1707.42  | 1706.22    | 1.90    | 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 |          |          |          | 111        |         | %     |
| Holmium    | 165-2 |          |          |          | 107        |         | %     |
| Indium     | 115-1 |          |          |          | 107        |         | %     |
| Indium     | 115-2 |          |          |          | 102        |         | %     |
| Iron       | 56-2  | 12107.61 | 11697.64 | 12119.72 | 11974.99   | 2.01    | ppb   |
| Iron       | 57-2  | 11681.36 | 11526.48 | 11778.55 | 11662.13   | 1.09    | ppb   |
| Iron       | 54-2  | 12160.78 | 11762.50 | 12028.71 | 11984.00   | 1.69    | ppb   |
| Krypton    | 83-1  |          |          |          |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5272-05 Instrumnet Name : P7  
Client Sample ID : MJNKJ9D Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:21:10 DataFile Name : 042SMPL.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Lead       | 206-1 | 187.53   | 191.34   | 189.68   | 189.52     | 1.01    | ppb   |
| Lead       | 207-1 | 185.50   | 188.80   | 188.30   | 187.53     | 0.95    | ppb   |
| Lead       | 208-1 | 186.82   | 189.65   | 187.38   | 187.95     | 0.80    | ppb   |
| Lithium    | 6-1   |          |          |          | 93         |         | %     |
| Magnesium  | 24-2  | 2551.62  | 2519.80  | 2604.86  | 2558.76    | 1.68    | ppb   |
| Manganese  | 55-2  | 56.75    | 56.19    | 57.46    | 56.80      | 1.13    | ppb   |
| Molybdenum | 94-1  | 2.43     | 2.43     | 2.47     | 2.44       | 1.10    | ppb   |
| Molybdenum | 95-1  | 1.57     | 1.60     | 1.57     | 1.58       | 0.92    | ppb   |
| Molybdenum | 96-1  | 1.67     | 1.76     | 1.75     | 1.73       | 3.01    | ppb   |
| Molybdenum | 97-1  | 1.54     | 1.53     | 1.58     | 1.55       | 1.56    | ppb   |
| Molybdenum | 98-1  | 1.54     | 1.52     | 1.57     | 1.54       | 1.53    | ppb   |
| Neodymium  | 150-1 |          |          |          |            |         | cps   |
| Neodymium  | 150-2 |          |          |          |            |         | cps   |
| Nickel     | 60-2  | 9.87     | 9.65     | 10.08    | 9.87       | 2.17    | ppb   |
| Phosphorus | 31-2  | 1044.10  | 1020.12  | 1037.03  | 1033.75    | 1.19    | ppb   |
| Potassium  | 39-2  | 1568.37  | 1537.39  | 1576.09  | 1560.61    | 1.31    | ppb   |
| Rhodium    | 103-1 |          |          |          | 106        |         | %     |
| Rhodium    | 103-2 |          |          |          | 105        |         | %     |
| Scandium   | 45-1  |          |          |          | 100        |         | %     |
| Scandium   | 45-2  |          |          |          | 100        |         | %     |
| Selenium   | 82-1  | 0.85     | 0.31     | 0.61     | 0.59       | 45.84   | ppb   |
| Selenium   | 77-2  | 4.88     | 2.28     | 3.72     | 3.63       | 35.89   | ppb   |
| Selenium   | 78-2  | 1.49     | 0.51     | 1.14     | 1.05       | 47.61   | ppb   |
| Silicon    | 28-1  | 706.67   | 774.34   | 768.24   | 749.75     | 4.99    | ppb   |
| Silver     | 107-1 | 5.68     | 5.78     | 5.91     | 5.79       | 2.01    | ppb   |
| Silver     | 109-1 | 5.74     | 5.81     | 5.96     | 5.84       | 1.99    | ppb   |
| Sodium     | 23-2  | 12071.54 | 11898.41 | 12169.18 | 12046.38   | 1.14    | ppb   |
| Strontium  | 86-1  | 1047.38  | 1061.71  | 1063.42  | 1057.50    | 0.83    | ppb   |
| Strontium  | 88-1  | 1088.42  | 1096.80  | 1080.66  | 1088.63    | 0.74    | ppb   |
| Sulfur     | 34-1  | 2876.80  | 3003.95  | 2977.36  | 2952.71    | 2.27    | ppb   |
| Terbium    | 159-1 |          |          |          | 111        |         | %     |
| Terbium    | 159-2 |          |          |          | 106        |         | %     |
| Thallium   | 203-1 | 0.36     | 0.36     | 0.38     | 0.37       | 3.28    | ppb   |
| Thallium   | 205-1 | 0.36     | 0.37     | 0.36     | 0.36       | 1.37    | ppb   |
| Tin        | 118-1 | 11.15    | 11.41    | 11.81    | 11.46      | 2.89    | ppb   |
| Titanium   | 47-1  | 174.92   | 176.04   | 177.01   | 175.99     | 0.59    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

P5272-05

Instrumnet Name :

P7

Client Sample ID :

MJNKJ9D

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 18:21:10

DataFile Name :

042SMPL.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.91    | 0.91    | 0.95    | 0.92       | 2.22    | ppb   |
| Vanadium  | 51-2  | 14.83   | 14.45   | 14.72   | 14.67      | 1.35    | ppb   |
| Yttrium   | 89-1  |         |         |         | 108        |         | %     |
| Yttrium   | 89-2  |         |         |         | 105        |         | %     |
| Zinc      | 66-2  | 387.94  | 382.09  | 394.03  | 388.02     | 1.54    | ppb   |
| Zirconium | 90-1  | 0.63    | 0.64    | 0.66    | 0.64       | 2.56    | ppb   |
| Zirconium | 91-1  | 0.65    | 0.67    | 0.66    | 0.66       | 1.29    | ppb   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :P5272-04LX5Instrumnet Name :P7

Client Sample ID :MJNKG9LDilution Factor :5

Date & Time Acquired :2024-12-21 18:24:19DataFile Name :043SMPL.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 675.76  | 669.13  | 668.37  | 671.09     | 0.61    | ppb   |
| Antimony   | 121-1 | 1.15    | 1.15    | 1.11    | 1.13       | 1.95    | ppb   |
| Arsenic    | 75-2  | 14.80   | 15.20   | 14.48   | 14.82      | 2.42    | ppb   |
| Barium     | 135-1 | 5.79    | 5.82    | 5.60    | 5.74       | 2.04    | ppb   |
| Barium     | 137-1 | 5.77    | 5.87    | 5.72    | 5.79       | 1.31    | ppb   |
| Beryllium  | 9-1   | 0.05    | 0.04    | 0.04    | 0.04       | 16.35   | ppb   |
| Bismuth    | 209-1 |         |         |         | 109        |         | %     |
| Bismuth    | 209-2 |         |         |         | 106        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | 0.16    | 0.22    | 0.23    | 0.20       | 19.30   | ppb   |
| Cadmium    | 106-1 | -0.11   | -1.05   | -0.84   | -0.67      |         | ppb   |
| Cadmium    | 111-1 | 0.13    | 0.09    | 0.10    | 0.11       | 16.88   | ppb   |
| Calcium    | 43-1  | 922.10  | 924.89  | 938.54  | 928.51     | 0.95    | ppb   |
| Calcium    | 44-1  | 920.00  | 921.15  | 947.60  | 929.58     | 1.68    | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | 2.93    | 2.98    | 2.96    | 2.96       | 0.95    | ppb   |
| Cobalt     | 59-2  | 1.86    | 1.83    | 1.84    | 1.84       | 0.87    | ppb   |
| Copper     | 63-2  | 354.38  | 349.47  | 346.63  | 350.16     | 1.12    | 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 |         |         |         | 105        |         | %     |
| Indium     | 115-1 |         |         |         | 103        |         | %     |
| Indium     | 115-2 |         |         |         | 100        |         | %     |
| Iron       | 56-2  | 2458.83 | 2395.11 | 2424.55 | 2426.16    | 1.31    | ppb   |
| Iron       | 57-2  | 2419.41 | 2406.63 | 2370.16 | 2398.73    | 1.07    | ppb   |
| Iron       | 54-2  | 2473.03 | 2437.07 | 2421.94 | 2444.01    | 1.07    | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5272-04LX5 Instrumnet Name : P7  
Client Sample ID : MJNKJ9L Dilution Factor : 5  
Date & Time Acquired : 2024-12-21 18:24:19 DataFile Name : 043SMPL.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 35.83   | 35.75   | 36.31   | 35.96      | 0.83    | ppb   |
| Lead       | 207-1 | 35.67   | 35.06   | 35.31   | 35.35      | 0.86    | ppb   |
| Lead       | 208-1 | 35.48   | 35.18   | 35.51   | 35.39      | 0.51    | ppb   |
| Lithium    | 6-1   |         |         |         | 89         |         | %     |
| Magnesium  | 24-2  | 505.52  | 495.92  | 495.99  | 499.14     | 1.11    | ppb   |
| Manganese  | 55-2  | 11.71   | 11.45   | 11.49   | 11.55      | 1.24    | ppb   |
| Molybdenum | 94-1  | 0.52    | 0.46    | 0.46    | 0.48       | 6.96    | ppb   |
| Molybdenum | 95-1  | 0.31    | 0.30    | 0.29    | 0.30       | 3.06    | ppb   |
| Molybdenum | 96-1  | 0.35    | 0.36    | 0.34    | 0.35       | 2.38    | ppb   |
| Molybdenum | 97-1  | 0.34    | 0.33    | 0.36    | 0.34       | 4.22    | ppb   |
| Molybdenum | 98-1  | 0.33    | 0.32    | 0.33    | 0.32       | 1.71    | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | 2.95    | 2.90    | 2.81    | 2.89       | 2.42    | ppb   |
| Phosphorus | 31-2  | 198.85  | 197.89  | 200.22  | 198.99     | 0.59    | ppb   |
| Potassium  | 39-2  | 317.18  | 311.89  | 314.91  | 314.66     | 0.84    | ppb   |
| Rhodium    | 103-1 |         |         |         | 102        |         | %     |
| Rhodium    | 103-2 |         |         |         | 103        |         | %     |
| Scandium   | 45-1  |         |         |         | 97         |         | %     |
| Scandium   | 45-2  |         |         |         | 98         |         | %     |
| Selenium   | 82-1  | -0.01   | -0.04   | 0.08    | 0.01       | 594.57  | ppb   |
| Selenium   | 77-2  | 0.70    | 0.40    | 0.86    | 0.66       | 35.79   | ppb   |
| Selenium   | 78-2  | 0.90    | -0.14   | 1.13    | 0.63       | 107.16  | ppb   |
| Silicon    | 28-1  | 155.62  | 171.67  | 152.51  | 159.93     | 6.43    | ppb   |
| Silver     | 107-1 | 1.18    | 1.20    | 1.16    | 1.18       | 1.70    | ppb   |
| Silver     | 109-1 | 1.16    | 1.21    | 1.17    | 1.18       | 2.05    | ppb   |
| Sodium     | 23-2  | 2360.60 | 2419.14 | 2347.54 | 2375.76    | 1.60    | ppb   |
| Strontium  | 86-1  | 193.34  | 193.06  | 199.21  | 195.20     | 1.78    | ppb   |
| Strontium  | 88-1  | 196.23  | 196.73  | 199.34  | 197.43     | 0.85    | ppb   |
| Sulfur     | 34-1  | -492.19 | -506.99 | -399.12 | -466.10    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 107        |         | %     |
| Terbium    | 159-2 |         |         |         | 104        |         | %     |
| Thallium   | 203-1 | 0.09    | 0.08    | 0.07    | 0.08       | 9.60    | ppb   |
| Thallium   | 205-1 | 0.09    | 0.09    | 0.09    | 0.09       | 2.40    | ppb   |
| Tin        | 118-1 | 2.42    | 2.40    | 2.39    | 2.40       | 0.68    | ppb   |
| Titanium   | 47-1  | 35.40   | 35.85   | 36.23   | 35.83      | 1.16    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

P5272-04LX5

Instrumnet Name :

P7

Client Sample ID :

MJNKJ9L

Dilution Factor :

5

Date & Time Acquired :

2024-12-21 18:24:19

DataFile Name :

043SMPL.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.19    | 0.19    | 0.19    | 0.19       | 1.07    | ppb   |
| Vanadium  | 51-2  | 2.91    | 2.99    | 2.89    | 2.93       | 1.85    | ppb   |
| Yttrium   | 89-1  |         |         |         | 104        |         | %     |
| Yttrium   | 89-2  |         |         |         | 101        |         | %     |
| Zinc      | 66-2  | 79.26   | 78.54   | 79.87   | 79.23      | 0.84    | ppb   |
| Zirconium | 90-1  | 0.12    | 0.12    | 0.13    | 0.12       | 6.34    | ppb   |
| Zirconium | 91-1  | 0.12    | 0.11    | 0.13    | 0.12       | 8.21    | ppb   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :P5272-06Instrumnet Name :P7

Client Sample ID :MJNKJ9SDilution Factor :1

Date & Time Acquired :2024-12-21 18:27:31DataFile Name :044SMPL.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Aluminium  | 27-2  | 3769.92  | 3624.59  | 3644.56  | 3679.69    | 2.14    | ppb   |
| Antimony   | 121-1 | 26.71    | 26.73    | 27.02    | 26.82      | 0.64    | ppb   |
| Arsenic    | 75-2  | 82.14    | 80.06    | 80.66    | 80.95      | 1.32    | ppb   |
| Barium     | 135-1 | 429.98   | 431.98   | 435.81   | 432.59     | 0.69    | ppb   |
| Barium     | 137-1 | 463.78   | 457.46   | 457.56   | 459.60     | 0.79    | ppb   |
| Beryllium  | 9-1   | 11.07    | 11.67    | 11.64    | 11.46      | 2.94    | ppb   |
| Bismuth    | 209-1 |          |          |          | 114        |         | %     |
| Bismuth    | 209-2 |          |          |          | 108        |         | %     |
| Bromine    | 81-1  |          |          |          |            |         | cps   |
| Bromine    | 81-2  |          |          |          |            |         | cps   |
| Cadmium    | 108-1 | 10.93    | 11.63    | 11.59    | 11.38      | 3.46    | ppb   |
| Cadmium    | 106-1 | 10.06    | 9.28     | 10.60    | 9.98       | 6.64    | ppb   |
| Cadmium    | 111-1 | 10.34    | 10.26    | 10.38    | 10.33      | 0.59    | ppb   |
| Calcium    | 43-1  | 4600.21  | 4753.38  | 4573.36  | 4642.32    | 2.09    | ppb   |
| Calcium    | 44-1  | 4480.85  | 4514.60  | 4451.83  | 4482.42    | 0.70    | ppb   |
| Carbon     | 12-1  |          |          |          |            |         | cps   |
| Carbon     | 12-2  |          |          |          |            |         | cps   |
| Chlorine   | 35-1  |          |          |          |            |         | cps   |
| Chlorine   | 35-2  |          |          |          |            |         | cps   |
| Chromium   | 52-2  | 57.17    | 57.23    | 57.75    | 57.38      | 0.56    | ppb   |
| Cobalt     | 59-2  | 116.80   | 116.45   | 117.26   | 116.84     | 0.35    | ppb   |
| Copper     | 63-2  | 1755.90  | 1736.45  | 1728.16  | 1740.17    | 0.82    | 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 |          |          |          | 111        |         | %     |
| Holmium    | 165-2 |          |          |          | 108        |         | %     |
| Indium     | 115-1 |          |          |          | 106        |         | %     |
| Indium     | 115-2 |          |          |          | 103        |         | %     |
| Iron       | 56-2  | 12097.89 | 12034.36 | 11958.40 | 12030.21   | 0.58    | ppb   |
| Iron       | 57-2  | 11624.28 | 11745.66 | 11870.65 | 11746.86   | 1.05    | ppb   |
| Iron       | 54-2  | 11884.12 | 11974.03 | 12183.20 | 12013.78   | 1.28    | ppb   |
| Krypton    | 83-1  |          |          |          |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5272-06 Instrumnet Name : P7  
Client Sample ID : MJNKJ9S Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:27:31 DataFile Name : 044SMPL.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Lead       | 206-1 | 194.87   | 188.75   | 194.96   | 192.86     | 1.85    | ppb   |
| Lead       | 207-1 | 191.57   | 191.71   | 174.75   | 186.01     | 5.24    | ppb   |
| Lead       | 208-1 | 193.55   | 190.63   | 186.99   | 190.39     | 1.73    | ppb   |
| Lithium    | 6-1   |          |          |          | 94         |         | %     |
| Magnesium  | 24-2  | 2468.17  | 2459.53  | 2492.70  | 2473.47    | 0.70    | ppb   |
| Manganese  | 55-2  | 159.24   | 159.05   | 158.87   | 159.05     | 0.12    | ppb   |
| Molybdenum | 94-1  | 2.38     | 2.43     | 2.40     | 2.41       | 1.00    | ppb   |
| Molybdenum | 95-1  | 1.58     | 1.59     | 1.55     | 1.57       | 1.43    | ppb   |
| Molybdenum | 96-1  | 1.68     | 1.78     | 1.70     | 1.72       | 3.13    | ppb   |
| Molybdenum | 97-1  | 1.55     | 1.57     | 1.59     | 1.57       | 1.08    | ppb   |
| Molybdenum | 98-1  | 1.57     | 1.57     | 1.53     | 1.56       | 1.43    | ppb   |
| Neodymium  | 150-1 |          |          |          |            |         | cps   |
| Neodymium  | 150-2 |          |          |          |            |         | cps   |
| Nickel     | 60-2  | 117.92   | 118.86   | 118.71   | 118.50     | 0.43    | ppb   |
| Phosphorus | 31-2  | 1008.35  | 999.71   | 982.43   | 996.83     | 1.32    | ppb   |
| Potassium  | 39-2  | 1534.38  | 1529.29  | 1550.93  | 1538.20    | 0.74    | ppb   |
| Rhodium    | 103-1 |          |          |          | 103        |         | %     |
| Rhodium    | 103-2 |          |          |          | 105        |         | %     |
| Scandium   | 45-1  |          |          |          | 100        |         | %     |
| Scandium   | 45-2  |          |          |          | 100        |         | %     |
| Selenium   | 82-1  | 21.61    | 22.16    | 22.08    | 21.95      | 1.33    | ppb   |
| Selenium   | 77-2  | 21.62    | 23.41    | 25.58    | 23.54      | 8.43    | ppb   |
| Selenium   | 78-2  | 24.32    | 24.31    | 22.69    | 23.77      | 3.96    | ppb   |
| Silicon    | 28-1  | 727.25   | 747.90   | 707.12   | 727.43     | 2.80    | ppb   |
| Silver     | 107-1 | 16.37    | 16.53    | 16.59    | 16.50      | 0.72    | ppb   |
| Silver     | 109-1 | 16.31    | 16.72    | 16.52    | 16.51      | 1.25    | ppb   |
| Sodium     | 23-2  | 11544.26 | 11490.15 | 11529.29 | 11521.23   | 0.24    | ppb   |
| Strontium  | 86-1  | 995.09   | 1013.52  | 994.17   | 1000.92    | 1.09    | ppb   |
| Strontium  | 88-1  | 1011.81  | 1041.51  | 1007.86  | 1020.40    | 1.80    | ppb   |
| Sulfur     | 34-1  | 2792.88  | 2996.00  | 2774.39  | 2854.43    | 4.31    | ppb   |
| Terbium    | 159-1 |          |          |          | 111        |         | %     |
| Terbium    | 159-2 |          |          |          | 105        |         | %     |
| Thallium   | 203-1 | 9.84     | 9.76     | 9.93     | 9.84       | 0.89    | ppb   |
| Thallium   | 205-1 | 9.77     | 9.60     | 9.79     | 9.72       | 1.07    | ppb   |
| Tin        | 118-1 | 11.36    | 11.54    | 11.66    | 11.52      | 1.30    | ppb   |
| Titanium   | 47-1  | 175.16   | 177.93   | 176.35   | 176.48     | 0.79    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

P5272-06

Instrumnet Name :

P7

Client Sample ID :

MJNKJ9S

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 18:27:31

DataFile Name :

044SMPL.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.95    | 0.92    | 0.92    | 0.93       | 1.42    | ppb   |
| Vanadium  | 51-2  | 119.22  | 119.60  | 119.00  | 119.27     | 0.26    | ppb   |
| Yttrium   | 89-1  |         |         |         | 107        |         | %     |
| Yttrium   | 89-2  |         |         |         | 104        |         | %     |
| Zinc      | 66-2  | 495.76  | 492.52  | 493.86  | 494.05     | 0.33    | ppb   |
| Zirconium | 90-1  | 0.64    | 0.64    | 0.63    | 0.64       | 1.04    | ppb   |
| Zirconium | 91-1  | 0.61    | 0.65    | 0.66    | 0.64       | 3.54    | ppb   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :P5273-01Instrumnet Name :P7

Client Sample ID :MJNKH1Dilution Factor :1

Date & Time Acquired :2024-12-21 18:30:38DataFile Name :045SMPL.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Aluminium  | 27-2  | 3234.30  | 3244.25  | 3235.84  | 3238.13    | 0.17    | ppb   |
| Antimony   | 121-1 | 15.44    | 15.66    | 15.41    | 15.50      | 0.91    | ppb   |
| Arsenic    | 75-2  | 88.06    | 87.90    | 89.02    | 88.33      | 0.69    | ppb   |
| Barium     | 135-1 | 47.55    | 48.97    | 47.65    | 48.05      | 1.64    | ppb   |
| Barium     | 137-1 | 48.08    | 48.40    | 47.90    | 48.13      | 0.53    | ppb   |
| Beryllium  | 9-1   | 0.15     | 0.20     | 0.21     | 0.19       | 18.30   | ppb   |
| Bismuth    | 209-1 |          |          |          | 115        |         | %     |
| Bismuth    | 209-2 |          |          |          | 106        |         | %     |
| Bromine    | 81-1  |          |          |          |            |         | cps   |
| Bromine    | 81-2  |          |          |          |            |         | cps   |
| Cadmium    | 108-1 | 1.56     | 1.66     | 1.40     | 1.54       | 8.69    | ppb   |
| Cadmium    | 106-1 | 1.22     | 1.31     | 0.23     | 0.92       | 65.51   | ppb   |
| Cadmium    | 111-1 | 1.26     | 1.30     | 1.19     | 1.25       | 4.62    | ppb   |
| Calcium    | 43-1  | 10474.93 | 10437.01 | 10432.67 | 10448.20   | 0.22    | ppb   |
| Calcium    | 44-1  | 10103.31 | 10049.84 | 10168.38 | 10107.18   | 0.59    | ppb   |
| Carbon     | 12-1  |          |          |          |            |         | cps   |
| Carbon     | 12-2  |          |          |          |            |         | cps   |
| Chlorine   | 35-1  |          |          |          |            |         | cps   |
| Chlorine   | 35-2  |          |          |          |            |         | cps   |
| Chromium   | 52-2  | 14.92    | 15.15    | 14.64    | 14.90      | 1.69    | ppb   |
| Cobalt     | 59-2  | 16.33    | 16.33    | 16.18    | 16.28      | 0.53    | ppb   |
| Copper     | 63-2  | 1129.57  | 1128.56  | 1123.09  | 1127.07    | 0.31    | 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 |          |          |          | 106        |         | %     |
| Indium     | 115-1 |          |          |          | 105        |         | %     |
| Indium     | 115-2 |          |          |          | 102        |         | %     |
| Iron       | 56-2  | 17170.85 | 17350.34 | 17202.10 | 17241.10   | 0.56    | ppb   |
| Iron       | 57-2  | 17096.96 | 17122.69 | 16681.68 | 16967.11   | 1.46    | ppb   |
| Iron       | 54-2  | 17286.01 | 17452.34 | 17150.65 | 17296.33   | 0.87    | ppb   |
| Krypton    | 83-1  |          |          |          |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5273-01 Instrumnet Name : P7  
Client Sample ID : MJNKH1 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:30:38 DataFile Name : 045SMPL.d

| Parameter  | Mass  | ConRep1  | ConRep2  | ConRep3  | Avg. Conc. | ConcRSD | Units |
|------------|-------|----------|----------|----------|------------|---------|-------|
| Lead       | 206-1 | 297.82   | 299.33   | 302.85   | 300.00     | 0.86    | ppb   |
| Lead       | 207-1 | 300.46   | 302.21   | 301.60   | 301.42     | 0.30    | ppb   |
| Lead       | 208-1 | 296.50   | 299.96   | 300.28   | 298.91     | 0.70    | ppb   |
| Lithium    | 6-1   |          |          |          | 91         |         | %     |
| Magnesium  | 24-2  | 2666.52  | 2642.20  | 2673.54  | 2660.75    | 0.62    | ppb   |
| Manganese  | 55-2  | 102.75   | 102.34   | 101.75   | 102.28     | 0.49    | ppb   |
| Molybdenum | 94-1  | 4.07     | 4.07     | 4.10     | 4.08       | 0.47    | ppb   |
| Molybdenum | 95-1  | 3.05     | 3.01     | 3.03     | 3.03       | 0.73    | ppb   |
| Molybdenum | 96-1  | 3.26     | 3.22     | 3.29     | 3.26       | 1.17    | ppb   |
| Molybdenum | 97-1  | 3.04     | 3.03     | 3.08     | 3.05       | 0.87    | ppb   |
| Molybdenum | 98-1  | 3.00     | 3.05     | 2.99     | 3.01       | 1.05    | ppb   |
| Neodymium  | 150-1 |          |          |          |            |         | cps   |
| Neodymium  | 150-2 |          |          |          |            |         | cps   |
| Nickel     | 60-2  | 10.42    | 10.57    | 10.46    | 10.48      | 0.72    | ppb   |
| Phosphorus | 31-2  | 1356.83  | 1376.77  | 1386.73  | 1373.44    | 1.11    | ppb   |
| Potassium  | 39-2  | 1723.93  | 1719.37  | 1702.70  | 1715.33    | 0.65    | ppb   |
| Rhodium    | 103-1 |          |          |          | 104        |         | %     |
| Rhodium    | 103-2 |          |          |          | 103        |         | %     |
| Scandium   | 45-1  |          |          |          | 100        |         | %     |
| Scandium   | 45-2  |          |          |          | 99         |         | %     |
| Selenium   | 82-1  | 1.01     | 0.30     | 0.54     | 0.62       | 58.22   | ppb   |
| Selenium   | 77-2  | 5.36     | 3.92     | 3.90     | 4.39       | 19.05   | ppb   |
| Selenium   | 78-2  | 2.12     | 1.14     | 1.11     | 1.46       | 39.68   | ppb   |
| Silicon    | 28-1  | 734.99   | 766.12   | 760.69   | 753.93     | 2.21    | ppb   |
| Silver     | 107-1 | 2.85     | 2.88     | 2.84     | 2.86       | 0.80    | ppb   |
| Silver     | 109-1 | 2.87     | 2.85     | 2.83     | 2.85       | 0.71    | ppb   |
| Sodium     | 23-2  | 10680.11 | 10572.35 | 10484.62 | 10579.03   | 0.93    | ppb   |
| Strontium  | 86-1  | 1535.30  | 1535.96  | 1521.20  | 1530.82    | 0.54    | ppb   |
| Strontium  | 88-1  | 1557.90  | 1556.62  | 1566.20  | 1560.24    | 0.33    | ppb   |
| Sulfur     | 34-1  | 4976.02  | 5159.41  | 5325.09  | 5153.51    | 3.39    | ppb   |
| Terbium    | 159-1 |          |          |          | 111        |         | %     |
| Terbium    | 159-2 |          |          |          | 105        |         | %     |
| Thallium   | 203-1 | 0.42     | 0.41     | 0.43     | 0.42       | 1.95    | ppb   |
| Thallium   | 205-1 | 0.42     | 0.43     | 0.42     | 0.42       | 1.79    | ppb   |
| Tin        | 118-1 | 20.80    | 21.38    | 21.17    | 21.12      | 1.39    | ppb   |
| Titanium   | 47-1  | 225.64   | 225.76   | 226.10   | 225.83     | 0.11    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

P5273-01

Instrumnet Name :

P7

Client Sample ID :

MJNKH1

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 18:30:38

DataFile Name :

045SMPL.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 1.67    | 1.68    | 1.68    | 1.68       | 0.33    | ppb   |
| Vanadium  | 51-2  | 18.76   | 19.21   | 18.61   | 18.86      | 1.64    | ppb   |
| Yttrium   | 89-1  |         |         |         | 107        |         | %     |
| Yttrium   | 89-2  |         |         |         | 104        |         | %     |
| Zinc      | 66-2  | 900.27  | 898.69  | 893.92  | 897.63     | 0.37    | ppb   |
| Zirconium | 90-1  | 0.85    | 0.87    | 0.89    | 0.87       | 2.54    | ppb   |
| Zirconium | 91-1  | 1.09    | 0.94    | 0.90    | 0.98       | 10.39   | ppb   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :CCV038Instrumnet Name :P7

Client Sample ID :CCV038Dilution Factor :1

Date & Time Acquired :2024-12-21 18:33:43DataFile Name :046CCV.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Aluminium  | 27-2  | 48636.37  | 48274.64  | 48183.54  | 48364.85   | 0.50    | ppb   |
| Antimony   | 121-1 | 479.77    | 489.88    | 493.70    | 487.78     | 1.48    | ppb   |
| Arsenic    | 75-2  | 479.17    | 488.65    | 476.68    | 481.50     | 1.31    | ppb   |
| Barium     | 135-1 | 2442.29   | 2448.05   | 2480.58   | 2456.97    | 0.84    | ppb   |
| Barium     | 137-1 | 2444.71   | 2480.11   | 2493.46   | 2472.76    | 1.02    | ppb   |
| Beryllium  | 9-1   | 517.35    | 526.50    | 528.48    | 524.11     | 1.13    | ppb   |
| Bismuth    | 209-1 |           |           |           | 101        |         | %     |
| Bismuth    | 209-2 |           |           |           | 96         |         | %     |
| Bromine    | 81-1  |           |           |           |            |         | cps   |
| Bromine    | 81-2  |           |           |           |            |         | cps   |
| Cadmium    | 108-1 | 472.61    | 472.14    | 486.22    | 476.99     | 1.68    | ppb   |
| Cadmium    | 106-1 | 479.78    | 480.23    | 485.25    | 481.75     | 0.63    | ppb   |
| Cadmium    | 111-1 | 457.64    | 462.29    | 470.65    | 463.52     | 1.42    | ppb   |
| Calcium    | 43-1  | 250447.69 | 251008.13 | 252780.63 | 251412.15  | 0.48    | ppb   |
| Calcium    | 44-1  | 252580.27 | 249597.81 | 251750.39 | 251309.49  | 0.61    | ppb   |
| Carbon     | 12-1  |           |           |           |            |         | cps   |
| Carbon     | 12-2  |           |           |           |            |         | cps   |
| Chlorine   | 35-1  |           |           |           |            |         | cps   |
| Chlorine   | 35-2  |           |           |           |            |         | cps   |
| Chromium   | 52-2  | 498.40    | 509.38    | 491.12    | 499.64     | 1.84    | ppb   |
| Cobalt     | 59-2  | 492.79    | 489.97    | 484.30    | 489.02     | 0.88    | ppb   |
| Copper     | 63-2  | 4772.97   | 4736.85   | 4784.01   | 4764.61    | 0.52    | 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 |           |           |           | 102        |         | %     |
| Indium     | 115-1 |           |           |           | 92         |         | %     |
| Indium     | 115-2 |           |           |           | 89         |         | %     |
| Iron       | 56-2  | 129170.37 | 127433.92 | 125552.24 | 127385.51  | 1.42    | ppb   |
| Iron       | 57-2  | 127355.15 | 124756.07 | 124922.00 | 125677.74  | 1.16    | ppb   |
| Iron       | 54-2  | 127461.43 | 126693.13 | 126387.94 | 126847.50  | 0.44    | ppb   |
| Krypton    | 83-1  |           |           |           |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : CCV038 Instrumnet Name : P7  
Client Sample ID : CCV038 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:33:43 DataFile Name : 046CCV.d

| Parameter  | Mass  | ConRep1   | ConRep2   | ConRep3   | Avg. Conc. | ConcRSD | Units |
|------------|-------|-----------|-----------|-----------|------------|---------|-------|
| Lead       | 206-1 | 2485.33   | 2540.65   | 2508.34   | 2511.44    | 1.11    | ppb   |
| Lead       | 207-1 | 2499.02   | 2539.16   | 2560.24   | 2532.81    | 1.23    | ppb   |
| Lead       | 208-1 | 2490.78   | 2524.69   | 2524.54   | 2513.34    | 0.78    | ppb   |
| Lithium    | 6-1   |           |           |           | 91         |         | %     |
| Magnesium  | 24-2  | 234437.24 | 232472.71 | 229971.74 | 232293.89  | 0.96    | ppb   |
| Manganese  | 55-2  | 4868.47   | 4926.63   | 4832.96   | 4876.02    | 0.97    | ppb   |
| Molybdenum | 94-1  | 4942.59   | 5001.97   | 4946.94   | 4963.83    | 0.67    | ppb   |
| Molybdenum | 95-1  | 4949.02   | 4982.33   | 4993.07   | 4974.80    | 0.46    | ppb   |
| Molybdenum | 96-1  | 4920.98   | 4948.59   | 4953.29   | 4940.95    | 0.35    | ppb   |
| Molybdenum | 97-1  | 4946.77   | 4979.49   | 4849.38   | 4925.21    | 1.37    | ppb   |
| Molybdenum | 98-1  | 4872.68   | 4909.16   | 4881.01   | 4887.62    | 0.39    | ppb   |
| Neodymium  | 150-1 |           |           |           |            |         | cps   |
| Neodymium  | 150-2 |           |           |           |            |         | cps   |
| Nickel     | 60-2  | 465.63    | 462.11    | 459.19    | 462.31     | 0.70    | ppb   |
| Phosphorus | 31-2  | 9589.95   | 9414.37   | 9437.54   | 9480.62    | 1.01    | ppb   |
| Potassium  | 39-2  | 122010.05 | 121360.79 | 120188.86 | 121186.57  | 0.76    | ppb   |
| Rhodium    | 103-1 |           |           |           | 89         |         | %     |
| Rhodium    | 103-2 |           |           |           | 89         |         | %     |
| Scandium   | 45-1  |           |           |           | 90         |         | %     |
| Scandium   | 45-2  |           |           |           | 89         |         | %     |
| Selenium   | 82-1  | 467.86    | 468.10    | 473.55    | 469.84     | 0.69    | ppb   |
| Selenium   | 77-2  | 452.64    | 474.85    | 456.58    | 461.36     | 2.57    | ppb   |
| Selenium   | 78-2  | 465.17    | 472.81    | 462.10    | 466.69     | 1.18    | ppb   |
| Silicon    | 28-1  | 195.69    | 197.50    | 198.50    | 197.23     | 0.72    | ppb   |
| Silver     | 107-1 | 472.13    | 472.37    | 473.70    | 472.73     | 0.18    | ppb   |
| Silver     | 109-1 | 469.09    | 473.67    | 483.96    | 475.57     | 1.60    | ppb   |
| Sodium     | 23-2  | 242118.50 | 243096.23 | 239854.36 | 241689.70  | 0.69    | ppb   |
| Strontium  | 86-1  | 12261.39  | 12491.93  | 12383.81  | 12379.04   | 0.93    | ppb   |
| Strontium  | 88-1  | 12114.78  | 12380.30  | 12386.35  | 12293.81   | 1.26    | ppb   |
| Sulfur     | 34-1  | 9542.52   | 9360.68   | 9554.17   | 9485.79    | 1.14    | ppb   |
| Terbium    | 159-1 |           |           |           | 103        |         | %     |
| Terbium    | 159-2 |           |           |           | 100        |         | %     |
| Thallium   | 203-1 | 504.39    | 506.64    | 500.10    | 503.71     | 0.66    | ppb   |
| Thallium   | 205-1 | 493.90    | 504.35    | 498.23    | 498.83     | 1.05    | ppb   |
| Tin        | 118-1 | 480.56    | 488.48    | 498.48    | 489.17     | 1.84    | ppb   |
| Titanium   | 47-1  | 5025.29   | 4953.10   | 4910.33   | 4962.91    | 1.17    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

CCV038

Instrumnet Name :

P7

Client Sample ID :

CCV038

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 18:33:43

DataFile Name :

046CCV.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 493.69  | 505.12  | 512.81  | 503.87     | 1.91    | ppb   |
| Vanadium  | 51-2  | 505.75  | 502.30  | 500.23  | 502.76     | 0.55    | ppb   |
| Yttrium   | 89-1  |         |         |         | 95         |         | %     |
| Yttrium   | 89-2  |         |         |         | 91         |         | %     |
| Zinc      | 66-2  | 4604.27 | 4673.34 | 4597.89 | 4625.17    | 0.90    | ppb   |
| Zirconium | 90-1  | 488.81  | 500.77  | 495.77  | 495.12     | 1.21    | ppb   |
| Zirconium | 91-1  | 500.54  | 492.44  | 498.95  | 497.31     | 0.86    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

CCB038

Instrumnet Name :

P7

Client Sample ID :

CCB038

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 18:39:43

DataFile Name :

048CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Aluminium  | 27-2  | 0.58    | 0.47    | 0.55    | 0.53       | 10.71   | ppb   |
| Antimony   | 121-1 | 0.05    | 0.06    | 0.06    | 0.06       | 14.85   | ppb   |
| Arsenic    | 75-2  | 0.00    | -0.01   | 0.02    | 0.00       | 350.50  | ppb   |
| Barium     | 135-1 | 0.03    | 0.03    | 0.01    | 0.02       | 42.36   | ppb   |
| Barium     | 137-1 | 0.02    | 0.02    | 0.02    | 0.02       | 17.21   | ppb   |
| Beryllium  | 9-1   | 0.01    | 0.04    | 0.04    | 0.03       | 47.87   | ppb   |
| Bismuth    | 209-1 |         |         |         | 110        |         | %     |
| Bismuth    | 209-2 |         |         |         | 106        |         | %     |
| Bromine    | 81-1  |         |         |         |            |         | cps   |
| Bromine    | 81-2  |         |         |         |            |         | cps   |
| Cadmium    | 108-1 | 0.04    | -0.02   | 0.04    | 0.02       | 151.55  | ppb   |
| Cadmium    | 106-1 | -0.67   | -0.73   | -0.41   | -0.60      |         | ppb   |
| Cadmium    | 111-1 | -0.03   | -0.04   | -0.02   | -0.03      |         | ppb   |
| Calcium    | 43-1  | 1.10    | 1.07    | -0.29   | 0.63       | 127.02  | ppb   |
| Calcium    | 44-1  | 1.93    | 1.30    | 0.75    | 1.33       | 44.54   | ppb   |
| Carbon     | 12-1  |         |         |         |            |         | cps   |
| Carbon     | 12-2  |         |         |         |            |         | cps   |
| Chlorine   | 35-1  |         |         |         |            |         | cps   |
| Chlorine   | 35-2  |         |         |         |            |         | cps   |
| Chromium   | 52-2  | 0.02    | 0.03    | 0.02    | 0.02       | 36.58   | ppb   |
| Cobalt     | 59-2  | -0.01   | 0.00    | -0.01   | -0.01      |         | ppb   |
| Copper     | 63-2  | 0.11    | 0.12    | 0.12    | 0.12       | 7.34    | 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 |         |         |         | 105        |         | %     |
| Holmium    | 165-2 |         |         |         | 104        |         | %     |
| Indium     | 115-1 |         |         |         | 98         |         | %     |
| Indium     | 115-2 |         |         |         | 97         |         | %     |
| Iron       | 56-2  | 0.48    | 0.47    | 0.38    | 0.44       | 12.17   | ppb   |
| Iron       | 57-2  | -0.94   | -2.04   | -0.34   | -1.11      |         | ppb   |
| Iron       | 54-2  | 0.15    | 0.36    | -0.07   | 0.14       | 148.48  | ppb   |
| Krypton    | 83-1  |         |         |         |            |         | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : CCB038 Instrumnet Name : P7  
Client Sample ID : CCB038 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:39:43 DataFile Name : 048CCBE.d

| Parameter  | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|------------|-------|---------|---------|---------|------------|---------|-------|
| Lead       | 206-1 | 0.12    | 0.13    | 0.12    | 0.12       | 5.48    | ppb   |
| Lead       | 207-1 | 0.13    | 0.12    | 0.12    | 0.13       | 5.03    | ppb   |
| Lead       | 208-1 | 0.12    | 0.12    | 0.12    | 0.12       | 3.39    | ppb   |
| Lithium    | 6-1   |         |         |         | 100        |         | %     |
| Magnesium  | 24-2  | 1.35    | 1.15    | 1.26    | 1.25       | 7.95    | ppb   |
| Manganese  | 55-2  | 0.04    | 0.03    | 0.02    | 0.03       | 30.84   | ppb   |
| Molybdenum | 94-1  | 0.07    | 0.08    | 0.06    | 0.07       | 15.51   | ppb   |
| Molybdenum | 95-1  | 0.05    | 0.07    | 0.05    | 0.06       | 15.39   | ppb   |
| Molybdenum | 96-1  | 0.06    | 0.06    | 0.05    | 0.06       | 9.50    | ppb   |
| Molybdenum | 97-1  | 0.06    | 0.07    | 0.07    | 0.07       | 9.58    | ppb   |
| Molybdenum | 98-1  | 0.06    | 0.06    | 0.05    | 0.05       | 10.94   | ppb   |
| Neodymium  | 150-1 |         |         |         |            |         | cps   |
| Neodymium  | 150-2 |         |         |         |            |         | cps   |
| Nickel     | 60-2  | 0.03    | 0.04    | 0.05    | 0.04       | 21.02   | ppb   |
| Phosphorus | 31-2  | -18.94  | -18.27  | -18.54  | -18.58     |         | ppb   |
| Potassium  | 39-2  | -3.63   | -4.68   | -3.31   | -3.87      |         | ppb   |
| Rhodium    | 103-1 |         |         |         | 97         |         | %     |
| Rhodium    | 103-2 |         |         |         | 98         |         | %     |
| Scandium   | 45-1  |         |         |         | 93         |         | %     |
| Scandium   | 45-2  |         |         |         | 91         |         | %     |
| Selenium   | 82-1  | 0.14    | -0.19   | -0.17   | -0.07      |         | ppb   |
| Selenium   | 77-2  | -0.05   | -0.05   | -0.05   | -0.05      |         | ppb   |
| Selenium   | 78-2  | -0.46   | -0.27   | 0.39    | -0.11      |         | ppb   |
| Silicon    | 28-1  | -9.33   | -9.35   | -8.49   | -9.06      |         | ppb   |
| Silver     | 107-1 | 0.02    | 0.02    | 0.02    | 0.02       | 10.68   | ppb   |
| Silver     | 109-1 | 0.02    | 0.01    | 0.02    | 0.02       | 14.44   | ppb   |
| Sodium     | 23-2  | 27.50   | 26.56   | 26.61   | 26.89      | 1.96    | ppb   |
| Strontium  | 86-1  | -0.51   | 0.24    | -0.53   | -0.27      |         | ppb   |
| Strontium  | 88-1  | 0.10    | 0.15    | 0.08    | 0.11       | 29.63   | ppb   |
| Sulfur     | 34-1  | -554.42 | -522.09 | -408.87 | -495.13    |         | ppb   |
| Terbium    | 159-1 |         |         |         | 105        |         | %     |
| Terbium    | 159-2 |         |         |         | 102        |         | %     |
| Thallium   | 203-1 | 0.04    | 0.04    | 0.04    | 0.04       | 10.59   | ppb   |
| Thallium   | 205-1 | 0.05    | 0.05    | 0.05    | 0.05       | 3.60    | ppb   |
| Tin        | 118-1 | -0.01   | 0.00    | -0.01   | -0.01      |         | ppb   |
| Titanium   | 47-1  | 0.05    | 0.05    | 0.05    | 0.05       | 9.96    | ppb   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

CCB038

Instrumnet Name :

P7

Client Sample ID :

CCB038

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 18:39:43

DataFile Name :

048CCBE.d

| Parameter | Mass  | ConRep1 | ConRep2 | ConRep3 | Avg. Conc. | ConcRSD | Units |
|-----------|-------|---------|---------|---------|------------|---------|-------|
| Uranium   | 238-1 | 0.00    | 0.00    | 0.00    | 0.00       | 13.68   | ppb   |
| Vanadium  | 51-2  | 0.01    | 0.00    | 0.00    | 0.00       | 72.33   | ppb   |
| Yttrium   | 89-1  |         |         |         | 98         |         | %     |
| Yttrium   | 89-2  |         |         |         | 96         |         | %     |
| Zinc      | 66-2  | 0.24    | 0.26    | 0.26    | 0.25       | 4.22    | ppb   |
| Zirconium | 90-1  | 0.01    | 0.01    | 0.01    | 0.01       | 13.90   | ppb   |
| Zirconium | 91-1  | 0.00    | 0.01    | 0.00    | 0.00       | 65.47   | ppb   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S0 Instrumnet Name : P7  
Client Sample ID : S0 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:08:12 DataFile Name : 004CALB.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 87       | 127      | 90       | 101      | 21.95  | cps   |
| Antimony   | 121-1 | 33       | 40       | 37       | 37       | 9.10   | cps   |
| Arsenic    | 75-2  | 3        | 13       | 7        | 8        | 65.47  | cps   |
| Barium     | 135-1 | 33       | 17       | 33       | 28       | 34.63  | cps   |
| Barium     | 137-1 | 70       | 60       | 63       | 64       | 7.90   | cps   |
| Beryllium  | 9-1   | 47       | 33       | 33       | 38       | 20.39  | cps   |
| Bismuth    | 209-1 | 8130270  | 8171166  | 8207628  | 8169688  | 0.47   | cps   |
| Bismuth    | 209-2 | 6906025  | 6830998  | 6722650  | 6819891  | 1.35   | cps   |
| Bromine    | 81-1  | 17247    | 16526    | 16920    | 16898    | 2.14   | cps   |
| Bromine    | 81-2  | 323      | 317      | 287      | 309      | 6.32   | cps   |
| Cadmium    | 108-1 | 13       | 10       | 7        | 10       | 33.30  | cps   |
| Cadmium    | 106-1 | 3267     | 3024     | 2840     | 3044     | 7.03   | cps   |
| Cadmium    | 111-1 | 2284     | 2113     | 2000     | 2133     | 6.71   | cps   |
| Calcium    | 43-1  | 327      | 383      | 367      | 359      | 8.12   | cps   |
| Calcium    | 44-1  | 9790     | 9837     | 9723     | 9783     | 0.58   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 1323     | 1317     | 1503     | 1381     | 7.67   | cps   |
| Cobalt     | 59-2  | 157      | 153      | 167      | 159      | 4.37   | cps   |
| Copper     | 63-2  | 673      | 640      | 560      | 624      | 9.33   | cps   |
| Dysprosium | 156-1 | 17       | 3        | 10       | 10       | 66.70  | cps   |
| Dysprosium | 156-2 | 7        | 10       | 10       | 9        | 21.63  | cps   |
| Erbium     | 164-1 | 63       | 47       | 60       | 57       | 15.56  | cps   |
| Erbium     | 164-2 | 43       | 33       | 33       | 37       | 15.75  | cps   |
| Gadolinium | 160-1 | 57       | 40       | 33       | 43       | 27.74  | cps   |
| Gadolinium | 160-2 | 510      | 560      | 463      | 511      | 9.46   | cps   |
| Holmium    | 165-1 | 13688264 | 13521539 | 13462881 | 13557561 | 0.86   | cps   |
| Holmium    | 165-2 | 9705183  | 9705393  | 9527535  | 9646037  | 1.06   | cps   |
| Indium     | 115-1 | 11355518 | 11329194 | 11455728 | 11380147 | 0.59   | cps   |
| Indium     | 115-2 | 4235373  | 4285421  | 4257457  | 4259417  | 0.59   | cps   |
| Iron       | 56-2  | 19439    | 19413    | 19366    | 19406    | 0.19   | cps   |
| Iron       | 57-2  | 1130     | 1143     | 1253     | 1176     | 5.76   | cps   |
| Iron       | 54-2  | 2887     | 2787     | 2504     | 2726     | 7.30   | cps   |
| Krypton    | 83-1  | 210      | 257      | 193      | 220      | 14.92  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S0 Instrumnet Name : P7  
Client Sample ID : S0 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:08:12 DataFile Name : 004CALB.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 487      | 363      | 390      | 413      | 15.70  | cps   |
| Lead       | 207-1 | 353      | 327      | 313      | 331      | 6.15   | cps   |
| Lead       | 208-1 | 1783     | 1583     | 1537     | 1635     | 8.02   | cps   |
| Lithium    | 6-1   | 1358664  | 1308544  | 1352478  | 1339895  | 2.04   | cps   |
| Magnesium  | 24-2  | 467      | 457      | 450      | 458      | 1.83   | cps   |
| Manganese  | 55-2  | 373      | 320      | 333      | 342      | 8.11   | cps   |
| Molybdenum | 94-1  | 250      | 310      | 293      | 284      | 10.89  | cps   |
| Molybdenum | 95-1  | 167      | 130      | 160      | 152      | 12.83  | cps   |
| Molybdenum | 96-1  | 247      | 267      | 217      | 243      | 10.34  | cps   |
| Molybdenum | 97-1  | 97       | 103      | 93       | 98       | 5.21   | cps   |
| Molybdenum | 98-1  | 290      | 223      | 310      | 274      | 16.54  | cps   |
| Neodymium  | 150-1 | 3        | 7        | 7        | 6        | 34.70  | cps   |
| Neodymium  | 150-2 | 3        | 3        | 3        | 3        | 0.00   | cps   |
| Nickel     | 60-2  | 373      | 313      | 350      | 346      | 8.75   | cps   |
| Phosphorus | 31-2  | 180      | 137      | 100      | 139      | 28.83  | cps   |
| Potassium  | 39-2  | 60871    | 62193    | 61082    | 61382    | 1.16   | cps   |
| Rhodium    | 103-1 | 10724749 | 10630375 | 10583390 | 10646171 | 0.68   | cps   |
| Rhodium    | 103-2 | 6455841  | 6478298  | 6503984  | 6479374  | 0.37   | cps   |
| Scandium   | 45-1  | 6115766  | 6128448  | 6160947  | 6135054  | 0.38   | cps   |
| Scandium   | 45-2  | 566040   | 570604   | 571031   | 569225   | 0.49   | cps   |
| Selenium   | 82-1  | 320      | 312      | 361      | 331      | 7.91   | cps   |
| Selenium   | 77-2  | 0        | 3        | 0        | 1        | 173.21 | cps   |
| Selenium   | 78-2  | 470      | 433      | 400      | 434      | 8.06   | cps   |
| Silicon    | 28-1  | 721139   | 724338   | 719013   | 721497   | 0.37   | cps   |
| Silver     | 107-1 | 93       | 77       | 87       | 86       | 9.80   | cps   |
| Silver     | 109-1 | 40       | 43       | 23       | 36       | 30.14  | cps   |
| Sodium     | 23-2  | 17884    | 17744    | 18248    | 17958    | 1.45   | cps   |
| Strontium  | 86-1  | 353      | 457      | 350      | 387      | 15.68  | cps   |
| Strontium  | 88-1  | 213      | 220      | 173      | 202      | 12.48  | cps   |
| Sulfur     | 34-1  | 202337   | 205978   | 203573   | 203963   | 0.91   | cps   |
| Terbium    | 159-1 | 13901007 | 13817544 | 13964004 | 13894185 | 0.53   | cps   |
| Terbium    | 159-2 | 9601619  | 9714675  | 9497745  | 9604679  | 1.13   | cps   |
| Thallium   | 203-1 | 153      | 140      | 170      | 154      | 9.73   | cps   |
| Thallium   | 205-1 | 270      | 313      | 253      | 279      | 11.10  | cps   |
| Tin        | 118-1 | 1433     | 1523     | 1427     | 1461     | 3.70   | cps   |
| Titanium   | 47-1  | 60       | 60       | 107      | 76       | 35.66  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S0 Instrumnet Name : P7  
Client Sample ID : S0 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:08:12 DataFile Name : 004CALB.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 17       | 17       | 13       | 16       | 12.40  | cps   |
| Vanadium  | 51-2  | 0        | 10       | 7        | 6        | 91.64  | cps   |
| Yttrium   | 89-1  | 13137081 | 12986190 | 13091761 | 13071677 | 0.59   | cps   |
| Yttrium   | 89-2  | 3677601  | 3639699  | 3704841  | 3674047  | 0.89   | cps   |
| Zinc      | 66-2  | 290      | 263      | 310      | 288      | 8.14   | cps   |
| Zirconium | 90-1  | 617      | 543      | 720      | 627      | 14.16  | cps   |
| Zirconium | 91-1  | 120      | 110      | 150      | 127      | 16.43  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S02 Instrumnet Name : P7  
Client Sample ID : S02 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:14:49 DataFile Name : 006CALS.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 6661     | 6511     | 6702     | 6625     | 1.51   | cps   |
| Antimony   | 121-1 | 26802    | 26618    | 26484    | 26635    | 0.60   | cps   |
| Arsenic    | 75-2  | 820      | 840      | 837      | 832      | 1.29   | cps   |
| Barium     | 135-1 | 33199    | 32494    | 33309    | 33000    | 1.34   | cps   |
| Barium     | 137-1 | 56833    | 56773    | 57164    | 56923    | 0.37   | cps   |
| Beryllium  | 9-1   | 1540     | 1540     | 1497     | 1526     | 1.64   | cps   |
| Bismuth    | 209-1 | 8374811  | 8227462  | 8170354  | 8257543  | 1.28   | cps   |
| Bismuth    | 209-2 | 6853974  | 6840176  | 6844505  | 6846218  | 0.10   | cps   |
| Bromine    | 81-1  | 16256    | 16636    | 16483    | 16458    | 1.16   | cps   |
| Bromine    | 81-2  | 233      | 220      | 243      | 232      | 5.04   | cps   |
| Cadmium    | 108-1 | 260      | 250      | 233      | 248      | 5.44   | cps   |
| Cadmium    | 106-1 | 3724     | 3320     | 3677     | 3574     | 6.17   | cps   |
| Cadmium    | 111-1 | 6371     | 6252     | 6288     | 6304     | 0.97   | cps   |
| Calcium    | 43-1  | 19135    | 18658    | 19079    | 18957    | 1.38   | cps   |
| Calcium    | 44-1  | 309702   | 306032   | 307244   | 307659   | 0.61   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 13136    | 12832    | 13119    | 13029    | 1.31   | cps   |
| Cobalt     | 59-2  | 9847     | 9737     | 9757     | 9780     | 0.60   | cps   |
| Copper     | 63-2  | 13333    | 13109    | 13042    | 13161    | 1.16   | cps   |
| Dysprosium | 156-1 | 10       | 13       | 20       | 14       | 35.26  | cps   |
| Dysprosium | 156-2 | 23       | 13       | 7        | 14       | 58.06  | cps   |
| Erbium     | 164-1 | 67       | 50       | 63       | 60       | 14.70  | cps   |
| Erbium     | 164-2 | 43       | 30       | 50       | 41       | 24.77  | cps   |
| Gadolinium | 160-1 | 53       | 63       | 40       | 52       | 22.41  | cps   |
| Gadolinium | 160-2 | 550      | 593      | 530      | 558      | 5.80   | cps   |
| Holmium    | 165-1 | 13474243 | 13626995 | 13666970 | 13589403 | 0.75   | cps   |
| Holmium    | 165-2 | 9679105  | 9725275  | 9705278  | 9703219  | 0.24   | cps   |
| Indium     | 115-1 | 11425519 | 11279706 | 11283837 | 11329687 | 0.73   | cps   |
| Indium     | 115-2 | 4327770  | 4279310  | 4270374  | 4292485  | 0.72   | cps   |
| Iron       | 56-2  | 295143   | 295044   | 294089   | 294759   | 0.20   | cps   |
| Iron       | 57-2  | 8609     | 8206     | 8526     | 8447     | 2.52   | cps   |
| Iron       | 54-2  | 18138    | 18625    | 18375    | 18379    | 1.33   | cps   |
| Krypton    | 83-1  | 180      | 270      | 263      | 238      | 21.09  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S02 Instrumnet Name : P7  
Client Sample ID : S02 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:14:49 DataFile Name : 006CALS.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 10181    | 10217    | 9714     | 10037    | 2.80   | cps   |
| Lead       | 207-1 | 8643     | 8619     | 8453     | 8572     | 1.21   | cps   |
| Lead       | 208-1 | 39149    | 39466    | 39012    | 39209    | 0.59   | cps   |
| Lithium    | 6-1   | 1392959  | 1358956  | 1349987  | 1367301  | 1.66   | cps   |
| Magnesium  | 24-2  | 269127   | 267457   | 268438   | 268341   | 0.31   | cps   |
| Manganese  | 55-2  | 5264     | 5041     | 4878     | 5061     | 3.84   | cps   |
| Molybdenum | 94-1  | 27790    | 27382    | 27159    | 27444    | 1.17   | cps   |
| Molybdenum | 95-1  | 33786    | 33849    | 33726    | 33787    | 0.18   | cps   |
| Molybdenum | 96-1  | 38220    | 38273    | 37023    | 37839    | 1.87   | cps   |
| Molybdenum | 97-1  | 20915    | 21079    | 20605    | 20866    | 1.15   | cps   |
| Molybdenum | 98-1  | 54264    | 54438    | 54518    | 54406    | 0.24   | cps   |
| Neodymium  | 150-1 | 3        | 0        | 7        | 3        | 100.05 | cps   |
| Neodymium  | 150-2 | 3        | 7        | 0        | 3        | 100.05 | cps   |
| Nickel     | 60-2  | 2890     | 2714     | 2564     | 2722     | 6.01   | cps   |
| Phosphorus | 31-2  | 637      | 633      | 687      | 652      | 4.58   | cps   |
| Potassium  | 39-2  | 406693   | 405795   | 408548   | 407012   | 0.34   | cps   |
| Rhodium    | 103-1 | 10802246 | 10810106 | 10587390 | 10733247 | 1.18   | cps   |
| Rhodium    | 103-2 | 6452086  | 6516318  | 6426084  | 6464829  | 0.72   | cps   |
| Scandium   | 45-1  | 6259535  | 6167646  | 6102480  | 6176554  | 1.28   | cps   |
| Scandium   | 45-2  | 572518   | 573168   | 566821   | 570835   | 0.61   | cps   |
| Selenium   | 82-1  | 1529     | 1391     | 1369     | 1429     | 6.07   | cps   |
| Selenium   | 77-2  | 137      | 130      | 117      | 128      | 7.97   | cps   |
| Selenium   | 78-2  | 893      | 870      | 960      | 908      | 5.14   | cps   |
| Silicon    | 28-1  | 755871   | 751593   | 752219   | 753227   | 0.31   | cps   |
| Silver     | 107-1 | 17287    | 17007    | 16690    | 16994    | 1.76   | cps   |
| Silver     | 109-1 | 16256    | 15872    | 16223    | 16117    | 1.32   | cps   |
| Sodium     | 23-2  | 426281   | 428866   | 427894   | 427681   | 0.31   | cps   |
| Strontium  | 86-1  | 4637     | 4831     | 4581     | 4683     | 2.80   | cps   |
| Strontium  | 88-1  | 37364    | 36946    | 37043    | 37118    | 0.59   | cps   |
| Sulfur     | 34-1  | 207742   | 207343   | 208928   | 208004   | 0.40   | cps   |
| Terbium    | 159-1 | 14170176 | 14073906 | 14016674 | 14086918 | 0.55   | cps   |
| Terbium    | 159-2 | 9646721  | 9651265  | 9686791  | 9661593  | 0.23   | cps   |
| Thallium   | 203-1 | 12149    | 11922    | 12129    | 12067    | 1.04   | cps   |
| Thallium   | 205-1 | 28597    | 28510    | 27802    | 28303    | 1.54   | cps   |
| Tin        | 118-1 | 57317    | 57434    | 56082    | 56944    | 1.32   | cps   |
| Titanium   | 47-1  | 8469     | 8492     | 8252     | 8405     | 1.58   | cps   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

S02

Instrumnet Name :

P7

Client Sample ID :

S02

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 16:14:49

DataFile Name :

006CALS.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 33573    | 34315    | 33646    | 33844    | 1.21   | cps   |
| Vanadium  | 51-2  | 26169    | 25635    | 25755    | 25853    | 1.08   | cps   |
| Yttrium   | 89-1  | 13011213 | 13058293 | 12979799 | 13016435 | 0.30   | cps   |
| Yttrium   | 89-2  | 3689436  | 3694180  | 3668064  | 3683893  | 0.38   | cps   |
| Zinc      | 66-2  | 5981     | 5601     | 5901     | 5828     | 3.44   | cps   |
| Zirconium | 90-1  | 23118    | 22905    | 23132    | 23051    | 0.55   | cps   |
| Zirconium | 91-1  | 5014     | 5248     | 4928     | 5063     | 3.27   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S03 Instrumnet Name : P7  
Client Sample ID : S03 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:18:06 DataFile Name : 007CAL.S.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 301347   | 298682   | 295448   | 298492   | 0.99   | cps   |
| Antimony   | 121-1 | 610081   | 607213   | 609277   | 608857   | 0.24   | cps   |
| Arsenic    | 75-2  | 34804    | 33989    | 33361    | 34051    | 2.13   | cps   |
| Barium     | 135-1 | 769613   | 773143   | 767156   | 769971   | 0.39   | cps   |
| Barium     | 137-1 | 1318305  | 1318312  | 1318396  | 1318338  | 0.00   | cps   |
| Beryllium  | 9-1   | 70432    | 69652    | 70623    | 70235    | 0.73   | cps   |
| Bismuth    | 209-1 | 8351731  | 8297162  | 8198679  | 8282524  | 0.94   | cps   |
| Bismuth    | 209-2 | 6844442  | 6836014  | 6798156  | 6826204  | 0.36   | cps   |
| Bromine    | 81-1  | 16579    | 16169    | 16166    | 16305    | 1.46   | cps   |
| Bromine    | 81-2  | 160      | 153      | 147      | 153      | 4.35   | cps   |
| Cadmium    | 108-1 | 12312    | 12232    | 12292    | 12279    | 0.34   | cps   |
| Cadmium    | 106-1 | 20671    | 20228    | 19874    | 20258    | 1.97   | cps   |
| Cadmium    | 111-1 | 185853   | 183404   | 183533   | 184263   | 0.75   | cps   |
| Calcium    | 43-1  | 170853   | 169603   | 169383   | 169946   | 0.47   | cps   |
| Calcium    | 44-1  | 2662751  | 2618458  | 2680703  | 2653971  | 1.21   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 260163   | 261398   | 259561   | 260374   | 0.36   | cps   |
| Cobalt     | 59-2  | 406530   | 407607   | 404771   | 406302   | 0.35   | cps   |
| Copper     | 63-2  | 3091540  | 3073681  | 3000482  | 3055234  | 1.58   | cps   |
| Dysprosium | 156-1 | 47       | 27       | 20       | 31       | 44.61  | cps   |
| Dysprosium | 156-2 | 70       | 53       | 17       | 47       | 58.46  | cps   |
| Erbium     | 164-1 | 67       | 90       | 47       | 68       | 32.00  | cps   |
| Erbium     | 164-2 | 57       | 60       | 33       | 50       | 29.06  | cps   |
| Gadolinium | 160-1 | 27       | 37       | 63       | 42       | 44.88  | cps   |
| Gadolinium | 160-2 | 570      | 553      | 580      | 568      | 2.37   | cps   |
| Holmium    | 165-1 | 13657953 | 13410382 | 13729172 | 13599169 | 1.23   | cps   |
| Holmium    | 165-2 | 9867104  | 9743423  | 9614538  | 9741688  | 1.30   | cps   |
| Indium     | 115-1 | 11485983 | 11234521 | 11075497 | 11265333 | 1.84   | cps   |
| Indium     | 115-2 | 4168375  | 4220989  | 4119178  | 4169514  | 1.22   | cps   |
| Iron       | 56-2  | 12414820 | 12306823 | 12298573 | 12340072 | 0.53   | cps   |
| Iron       | 57-2  | 313988   | 312823   | 313095   | 313302   | 0.19   | cps   |
| Iron       | 54-2  | 693013   | 695100   | 688867   | 692327   | 0.46   | cps   |
| Krypton    | 83-1  | 223      | 193      | 200      | 206      | 7.66   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S03 Instrumnet Name : P7  
Client Sample ID : S03 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:18:06 DataFile Name : 007CAL.S.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 2392455  | 2432952  | 2405007  | 2410138  | 0.86   | cps   |
| Lead       | 207-1 | 2113156  | 2107537  | 2109330  | 2110008  | 0.14   | cps   |
| Lead       | 208-1 | 9651323  | 9635587  | 9669576  | 9652162  | 0.18   | cps   |
| Lithium    | 6-1   | 1406127  | 1387709  | 1371188  | 1388342  | 1.26   | cps   |
| Magnesium  | 24-2  | 2384593  | 2363382  | 2349562  | 2365846  | 0.75   | cps   |
| Manganese  | 55-2  | 2116000  | 2094855  | 2092320  | 2101058  | 0.62   | cps   |
| Molybdenum | 94-1  | 2223770  | 2179319  | 2193276  | 2198788  | 1.03   | cps   |
| Molybdenum | 95-1  | 3174218  | 3155206  | 3142225  | 3157217  | 0.51   | cps   |
| Molybdenum | 96-1  | 3517239  | 3441482  | 3399647  | 3452789  | 1.73   | cps   |
| Molybdenum | 97-1  | 2005445  | 1972107  | 1976226  | 1984592  | 0.92   | cps   |
| Molybdenum | 98-1  | 5150531  | 5073685  | 5071220  | 5098479  | 0.88   | cps   |
| Neodymium  | 150-1 | 50       | 47       | 60       | 52       | 13.28  | cps   |
| Neodymium  | 150-2 | 7        | 17       | 17       | 13       | 43.29  | cps   |
| Nickel     | 60-2  | 104380   | 103561   | 104299   | 104080   | 0.43   | cps   |
| Phosphorus | 31-2  | 15174    | 14861    | 15198    | 15078    | 1.25   | cps   |
| Potassium  | 39-2  | 1611461  | 1609109  | 1579787  | 1600119  | 1.10   | cps   |
| Rhodium    | 103-1 | 10741329 | 10506876 | 10467592 | 10571933 | 1.40   | cps   |
| Rhodium    | 103-2 | 6370414  | 6403012  | 6322972  | 6365466  | 0.63   | cps   |
| Scandium   | 45-1  | 6117503  | 6036152  | 6008446  | 6054034  | 0.94   | cps   |
| Scandium   | 45-2  | 563192   | 559131   | 562105   | 561476   | 0.37   | cps   |
| Selenium   | 82-1  | 10182    | 10507    | 10382    | 10357    | 1.58   | cps   |
| Selenium   | 77-2  | 1183     | 1097     | 1207     | 1162     | 4.99   | cps   |
| Selenium   | 78-2  | 4221     | 4181     | 4201     | 4201     | 0.48   | cps   |
| Silicon    | 28-1  | 1685986  | 1658411  | 1629392  | 1657929  | 1.71   | cps   |
| Silver     | 107-1 | 816864   | 820409   | 811074   | 816116   | 0.58   | cps   |
| Silver     | 109-1 | 785626   | 782303   | 779003   | 782311   | 0.42   | cps   |
| Sodium     | 23-2  | 3917774  | 3895124  | 3863635  | 3892178  | 0.70   | cps   |
| Strontium  | 86-1  | 190182   | 191488   | 190944   | 190871   | 0.34   | cps   |
| Strontium  | 88-1  | 1767423  | 1713667  | 1710579  | 1730556  | 1.85   | cps   |
| Sulfur     | 34-1  | 249203   | 249064   | 247333   | 248533   | 0.42   | cps   |
| Terbium    | 159-1 | 14078863 | 13806559 | 13951874 | 13945765 | 0.98   | cps   |
| Terbium    | 159-2 | 9593958  | 9619701  | 9565849  | 9593169  | 0.28   | cps   |
| Thallium   | 203-1 | 557661   | 559803   | 569485   | 562316   | 1.12   | cps   |
| Thallium   | 205-1 | 1334706  | 1333854  | 1334615  | 1334392  | 0.04   | cps   |
| Tin        | 118-1 | 509609   | 510891   | 505770   | 508757   | 0.52   | cps   |
| Titanium   | 47-1  | 774456   | 768424   | 762588   | 768489   | 0.77   | cps   |

LB Number :LB134060

Operator :Jaswal

Lab Sample ID :S03

Instrumnet Name :P7

Client Sample ID :S03

Dilution Factor :1

Date & Time Acquired :2024-12-21 16:18:06

DataFile Name :007CALS.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 1727118  | 1592810  | 1731690  | 1683873  | 4.69   | cps   |
| Vanadium  | 51-2  | 231675   | 227516   | 224596   | 227929   | 1.56   | cps   |
| Yttrium   | 89-1  | 13236017 | 12764025 | 12835787 | 12945276 | 1.96   | cps   |
| Yttrium   | 89-2  | 3627064  | 3620674  | 3572877  | 3606872  | 0.82   | cps   |
| Zinc      | 66-2  | 498880   | 495439   | 489769   | 494696   | 0.93   | cps   |
| Zirconium | 90-1  | 1036229  | 1037335  | 1037279  | 1036948  | 0.06   | cps   |
| Zirconium | 91-1  | 231167   | 230461   | 230283   | 230637   | 0.20   | cps   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :S04Instrumnet Name :P7

Client Sample ID :S04Dilution Factor :1

Date & Time Acquired :2024-12-21 16:21:10DataFile Name :008CAL.S.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 657463   | 653700   | 654703   | 655288   | 0.30   | cps   |
| Antimony   | 121-1 | 1371491  | 1377433  | 1378058  | 1375661  | 0.26   | cps   |
| Arsenic    | 75-2  | 75330    | 74348    | 74509    | 74729    | 0.70   | cps   |
| Barium     | 135-1 | 1836431  | 1823436  | 1824476  | 1828114  | 0.40   | cps   |
| Barium     | 137-1 | 3147764  | 3149127  | 3115059  | 3137317  | 0.61   | cps   |
| Beryllium  | 9-1   | 163197   | 163702   | 165888   | 164262   | 0.87   | cps   |
| Bismuth    | 209-1 | 8353042  | 8151144  | 8318660  | 8274282  | 1.31   | cps   |
| Bismuth    | 209-2 | 6835951  | 6760424  | 6800175  | 6798850  | 0.56   | cps   |
| Bromine    | 81-1  | 15291    | 15034    | 14631    | 14985    | 2.22   | cps   |
| Bromine    | 81-2  | 147      | 143      | 103      | 131      | 18.40  | cps   |
| Cadmium    | 108-1 | 27149    | 26932    | 27232    | 27104    | 0.57   | cps   |
| Cadmium    | 106-1 | 41549    | 41462    | 40747    | 41253    | 1.07   | cps   |
| Cadmium    | 111-1 | 416475   | 418083   | 416712   | 417090   | 0.21   | cps   |
| Calcium    | 43-1  | 382817   | 378432   | 378915   | 380055   | 0.63   | cps   |
| Calcium    | 44-1  | 5932700  | 5873265  | 5898268  | 5901411  | 0.51   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 568451   | 567135   | 564109   | 566565   | 0.39   | cps   |
| Cobalt     | 59-2  | 888176   | 882755   | 879048   | 883326   | 0.52   | cps   |
| Copper     | 63-2  | 6684892  | 6758264  | 6655776  | 6699644  | 0.79   | cps   |
| Dysprosium | 156-1 | 23       | 40       | 67       | 43       | 50.45  | cps   |
| Dysprosium | 156-2 | 93       | 67       | 73       | 78       | 17.84  | cps   |
| Erbium     | 164-1 | 53       | 57       | 80       | 63       | 22.94  | cps   |
| Erbium     | 164-2 | 63       | 60       | 53       | 59       | 8.65   | cps   |
| Gadolinium | 160-1 | 60       | 53       | 80       | 64       | 21.54  | cps   |
| Gadolinium | 160-2 | 530      | 590      | 530      | 550      | 6.30   | cps   |
| Holmium    | 165-1 | 13776468 | 13397304 | 13487416 | 13553729 | 1.46   | cps   |
| Holmium    | 165-2 | 9750438  | 9615777  | 9555939  | 9640718  | 1.03   | cps   |
| Indium     | 115-1 | 11088744 | 10709872 | 10806972 | 10868529 | 1.81   | cps   |
| Indium     | 115-2 | 4096963  | 4022326  | 4006647  | 4041979  | 1.19   | cps   |
| Iron       | 56-2  | 27114542 | 26865290 | 26880301 | 26953378 | 0.52   | cps   |
| Iron       | 57-2  | 688730   | 688777   | 682054   | 686520   | 0.56   | cps   |
| Iron       | 54-2  | 1505821  | 1508477  | 1496884  | 1503727  | 0.40   | cps   |
| Krypton    | 83-1  | 213      | 217      | 213      | 214      | 0.90   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S04 Instrumnet Name : P7  
Client Sample ID : S04 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:21:10 DataFile Name : 008CALS.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 5572078  | 5601531  | 5679051  | 5617553  | 0.98   | cps   |
| Lead       | 207-1 | 4920511  | 4925674  | 4958037  | 4934740  | 0.41   | cps   |
| Lead       | 208-1 | 22394221 | 22433851 | 22561802 | 22463292 | 0.39   | cps   |
| Lithium    | 6-1   | 1442437  | 1459418  | 1479453  | 1460436  | 1.27   | cps   |
| Magnesium  | 24-2  | 5168620  | 5194763  | 5107368  | 5156917  | 0.87   | cps   |
| Manganese  | 55-2  | 4614978  | 4692982  | 4555516  | 4621159  | 1.49   | cps   |
| Molybdenum | 94-1  | 4935039  | 4896074  | 4894441  | 4908518  | 0.47   | cps   |
| Molybdenum | 95-1  | 7110621  | 7125602  | 7034129  | 7090117  | 0.69   | cps   |
| Molybdenum | 96-1  | 7734959  | 7707026  | 7774200  | 7738728  | 0.44   | cps   |
| Molybdenum | 97-1  | 4499415  | 4443500  | 4395593  | 4446169  | 1.17   | cps   |
| Molybdenum | 98-1  | 11570029 | 11536372 | 11247889 | 11451430 | 1.55   | cps   |
| Neodymium  | 150-1 | 113      | 117      | 73       | 101      | 23.85  | cps   |
| Neodymium  | 150-2 | 27       | 30       | 13       | 23       | 37.81  | cps   |
| Nickel     | 60-2  | 226244   | 225280   | 224949   | 225491   | 0.30   | cps   |
| Phosphorus | 31-2  | 31860    | 31856    | 31659    | 31792    | 0.36   | cps   |
| Potassium  | 39-2  | 3440048  | 3394657  | 3366206  | 3400304  | 1.10   | cps   |
| Rhodium    | 103-1 | 10332093 | 10073286 | 10157608 | 10187662 | 1.30   | cps   |
| Rhodium    | 103-2 | 6221685  | 6022514  | 6080272  | 6108157  | 1.68   | cps   |
| Scandium   | 45-1  | 6003654  | 5839914  | 5847425  | 5896998  | 1.57   | cps   |
| Scandium   | 45-2  | 538846   | 527040   | 528231   | 531372   | 1.22   | cps   |
| Selenium   | 82-1  | 22628    | 22300    | 22541    | 22490    | 0.75   | cps   |
| Selenium   | 77-2  | 2470     | 2400     | 2337     | 2402     | 2.78   | cps   |
| Selenium   | 78-2  | 8479     | 8546     | 8573     | 8533     | 0.56   | cps   |
| Silicon    | 28-1  | 2496124  | 2478952  | 2485178  | 2486751  | 0.35   | cps   |
| Silver     | 107-1 | 1897823  | 1884085  | 1886939  | 1889616  | 0.38   | cps   |
| Silver     | 109-1 | 1859404  | 1822263  | 1802157  | 1827942  | 1.59   | cps   |
| Sodium     | 23-2  | 8591102  | 8526414  | 8407366  | 8508294  | 1.10   | cps   |
| Strontium  | 86-1  | 429919   | 429707   | 428926   | 429517   | 0.12   | cps   |
| Strontium  | 88-1  | 3916694  | 3920955  | 3854878  | 3897509  | 0.95   | cps   |
| Sulfur     | 34-1  | 298606   | 296208   | 293907   | 296240   | 0.79   | cps   |
| Terbium    | 159-1 | 13896632 | 13759054 | 13833767 | 13829817 | 0.50   | cps   |
| Terbium    | 159-2 | 9565699  | 9526868  | 9459552  | 9517373  | 0.56   | cps   |
| Thallium   | 203-1 | 1294482  | 1296207  | 1295426  | 1295372  | 0.07   | cps   |
| Thallium   | 205-1 | 3353219  | 3351626  | 3358646  | 3354497  | 0.11   | cps   |
| Tin        | 118-1 | 1141886  | 1148114  | 1142490  | 1144164  | 0.30   | cps   |
| Titanium   | 47-1  | 1718216  | 1721695  | 1709610  | 1716507  | 0.36   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S04 Instrumnet Name : P7  
Client Sample ID : S04 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:21:10 DataFile Name : 008CALS.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 4123169  | 4054708  | 4129625  | 4102500  | 1.01   | cps   |
| Vanadium  | 51-2  | 504237   | 498194   | 498034   | 500155   | 0.71   | cps   |
| Yttrium   | 89-1  | 12875140 | 12614064 | 12446495 | 12645233 | 1.71   | cps   |
| Yttrium   | 89-2  | 3491073  | 3406547  | 3419719  | 3439113  | 1.32   | cps   |
| Zinc      | 66-2  | 1086122  | 1078397  | 1083481  | 1082667  | 0.36   | cps   |
| Zirconium | 90-1  | 2404334  | 2400943  | 2366326  | 2390534  | 0.88   | cps   |
| Zirconium | 91-1  | 519920   | 513819   | 516630   | 516789   | 0.59   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S05 Instrumnet Name : P7  
Client Sample ID : S05 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:24:01 DataFile Name : 009CAL.S.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 1377227  | 1385254  | 1378482  | 1380321  | 0.31   | cps   |
| Antimony   | 121-1 | 3062346  | 3071017  | 3058794  | 3064053  | 0.21   | cps   |
| Arsenic    | 75-2  | 155484   | 152581   | 152151   | 153405   | 1.18   | cps   |
| Barium     | 135-1 | 3897164  | 3936538  | 3816094  | 3883265  | 1.58   | cps   |
| Barium     | 137-1 | 6714567  | 6677551  | 6560056  | 6650725  | 1.21   | cps   |
| Beryllium  | 9-1   | 352506   | 355875   | 353971   | 354117   | 0.48   | cps   |
| Bismuth    | 209-1 | 8288025  | 8241989  | 8213185  | 8247733  | 0.46   | cps   |
| Bismuth    | 209-2 | 6683649  | 6730226  | 6637987  | 6683954  | 0.69   | cps   |
| Bromine    | 81-1  | 13850    | 13676    | 13490    | 13672    | 1.32   | cps   |
| Bromine    | 81-2  | 140      | 140      | 167      | 149      | 10.34  | cps   |
| Cadmium    | 108-1 | 55964    | 56178    | 55218    | 55787    | 0.90   | cps   |
| Cadmium    | 106-1 | 84038    | 83448    | 81621    | 83036    | 1.52   | cps   |
| Cadmium    | 111-1 | 874438   | 868704   | 865619   | 869587   | 0.51   | cps   |
| Calcium    | 43-1  | 794455   | 792563   | 786210   | 791076   | 0.55   | cps   |
| Calcium    | 44-1  | 12427022 | 12274125 | 12233615 | 12311587 | 0.83   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 1161021  | 1165225  | 1157906  | 1161384  | 0.32   | cps   |
| Cobalt     | 59-2  | 1872766  | 1864348  | 1857736  | 1864950  | 0.40   | cps   |
| Copper     | 63-2  | 13668744 | 13603213 | 13593786 | 13621915 | 0.30   | cps   |
| Dysprosium | 156-1 | 60       | 63       | 57       | 60       | 5.55   | cps   |
| Dysprosium | 156-2 | 250      | 160      | 227      | 212      | 22.01  | cps   |
| Erbium     | 164-1 | 60       | 63       | 97       | 73       | 27.65  | cps   |
| Erbium     | 164-2 | 50       | 57       | 53       | 53       | 6.25   | cps   |
| Gadolinium | 160-1 | 70       | 53       | 60       | 61       | 13.73  | cps   |
| Gadolinium | 160-2 | 617      | 607      | 523      | 582      | 8.80   | cps   |
| Holmium    | 165-1 | 13675720 | 13372714 | 13528230 | 13525554 | 1.12   | cps   |
| Holmium    | 165-2 | 9621496  | 9609696  | 9398135  | 9543109  | 1.32   | cps   |
| Indium     | 115-1 | 10561038 | 10494233 | 10421793 | 10492355 | 0.66   | cps   |
| Indium     | 115-2 | 3933213  | 3889677  | 3818245  | 3880378  | 1.50   | cps   |
| Iron       | 56-2  | 55894161 | 55397816 | 55819243 | 55703740 | 0.48   | cps   |
| Iron       | 57-2  | 1399461  | 1397493  | 1401373  | 1399442  | 0.14   | cps   |
| Iron       | 54-2  | 3079537  | 3090171  | 3113447  | 3094385  | 0.56   | cps   |
| Krypton    | 83-1  | 187      | 153      | 173      | 171      | 9.80   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S05 Instrumnet Name : P7  
Client Sample ID : S05 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:24:01 DataFile Name : 009CAL.S.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 12076641 | 12252463 | 12201390 | 12176831 | 0.74   | cps   |
| Lead       | 207-1 | 10698990 | 10730052 | 10704635 | 10711226 | 0.15   | cps   |
| Lead       | 208-1 | 48609077 | 48711495 | 48867710 | 48729427 | 0.27   | cps   |
| Lithium    | 6-1   | 1492878  | 1500967  | 1485893  | 1493246  | 0.51   | cps   |
| Magnesium  | 24-2  | 10735139 | 10690076 | 10773164 | 10732793 | 0.39   | cps   |
| Manganese  | 55-2  | 9594858  | 9515786  | 9645204  | 9585283  | 0.68   | cps   |
| Molybdenum | 94-1  | 10233140 | 10274897 | 10298305 | 10268781 | 0.32   | cps   |
| Molybdenum | 95-1  | 14713630 | 14806759 | 14788041 | 14769477 | 0.33   | cps   |
| Molybdenum | 96-1  | 16399559 | 16222966 | 16509274 | 16377267 | 0.88   | cps   |
| Molybdenum | 97-1  | 9292589  | 9333176  | 9219605  | 9281790  | 0.62   | cps   |
| Molybdenum | 98-1  | 24155531 | 23878175 | 23958077 | 23997261 | 0.59   | cps   |
| Neodymium  | 150-1 | 213      | 250      | 203      | 222      | 11.05  | cps   |
| Neodymium  | 150-2 | 50       | 40       | 53       | 48       | 14.52  | cps   |
| Nickel     | 60-2  | 460778   | 460061   | 460177   | 460339   | 0.08   | cps   |
| Phosphorus | 31-2  | 65693    | 65322    | 64934    | 65316    | 0.58   | cps   |
| Potassium  | 39-2  | 6893525  | 6838889  | 6876641  | 6869685  | 0.41   | cps   |
| Rhodium    | 103-1 | 9927417  | 9735966  | 9637135  | 9766839  | 1.51   | cps   |
| Rhodium    | 103-2 | 5900155  | 5925894  | 5903542  | 5909864  | 0.24   | cps   |
| Scandium   | 45-1  | 5806351  | 5620469  | 5613350  | 5680056  | 1.93   | cps   |
| Scandium   | 45-2  | 506285   | 500225   | 501120   | 502543   | 0.65   | cps   |
| Selenium   | 82-1  | 46537    | 46183    | 46319    | 46346    | 0.39   | cps   |
| Selenium   | 77-2  | 4951     | 5044     | 5054     | 5016     | 1.14   | cps   |
| Selenium   | 78-2  | 17170    | 17133    | 17293    | 17199    | 0.49   | cps   |
| Silicon    | 28-1  | 4116015  | 4113282  | 4068486  | 4099261  | 0.65   | cps   |
| Silver     | 107-1 | 3997285  | 3988110  | 3913765  | 3966387  | 1.15   | cps   |
| Silver     | 109-1 | 3798416  | 3786940  | 3750072  | 3778476  | 0.67   | cps   |
| Sodium     | 23-2  | 17784573 | 17550202 | 17748638 | 17694471 | 0.71   | cps   |
| Strontium  | 86-1  | 905021   | 895661   | 893111   | 897931   | 0.70   | cps   |
| Strontium  | 88-1  | 8062971  | 8023516  | 8032122  | 8039536  | 0.26   | cps   |
| Sulfur     | 34-1  | 398812   | 394541   | 390450   | 394601   | 1.06   | cps   |
| Terbium    | 159-1 | 13845972 | 13794035 | 13503592 | 13714533 | 1.35   | cps   |
| Terbium    | 159-2 | 9466330  | 9502195  | 9446239  | 9471588  | 0.30   | cps   |
| Thallium   | 203-1 | 3081721  | 3112664  | 3047571  | 3080652  | 1.06   | cps   |
| Thallium   | 205-1 | 7275618  | 7327293  | 7253657  | 7285523  | 0.52   | cps   |
| Tin        | 118-1 | 2579846  | 2527586  | 2489221  | 2532218  | 1.80   | cps   |
| Titanium   | 47-1  | 3554340  | 3661110  | 3584249  | 3599900  | 1.53   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S05 Instrumnet Name : P7  
Client Sample ID : S05 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:24:01 DataFile Name : 009CALS.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 8888128  | 8997687  | 8949435  | 8945084  | 0.61   | cps   |
| Vanadium  | 51-2  | 1027843  | 1026326  | 1032328  | 1028832  | 0.30   | cps   |
| Yttrium   | 89-1  | 12372061 | 12021551 | 11977422 | 12123678 | 1.78   | cps   |
| Yttrium   | 89-2  | 3360837  | 3347893  | 3315419  | 3341383  | 0.70   | cps   |
| Zinc      | 66-2  | 2310772  | 2339538  | 2287117  | 2312476  | 1.14   | cps   |
| Zirconium | 90-1  | 4980933  | 4881004  | 4914094  | 4925344  | 1.03   | cps   |
| Zirconium | 91-1  | 1077307  | 1087828  | 1075595  | 1080244  | 0.61   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S06 Instrumnet Name : P7  
Client Sample ID : S06 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:26:49 DataFile Name : 010CAL.S.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Aluminium  | 27-2  | 2630943   | 2628587   | 2626994   | 2628841   | 0.08   | cps   |
| Antimony   | 121-1 | 5922969   | 6002700   | 5915045   | 5946905   | 0.82   | cps   |
| Arsenic    | 75-2  | 293653    | 292134    | 293786    | 293191    | 0.31   | cps   |
| Barium     | 135-1 | 7536083   | 7571809   | 7428978   | 7512290   | 0.99   | cps   |
| Barium     | 137-1 | 12854459  | 12972231  | 12849411  | 12892034  | 0.54   | cps   |
| Beryllium  | 9-1   | 679208    | 689528    | 690458    | 686398    | 0.91   | cps   |
| Bismuth    | 209-1 | 8315331   | 8362469   | 8271459   | 8316420   | 0.55   | cps   |
| Bismuth    | 209-2 | 6644710   | 6780133   | 6658966   | 6694603   | 1.11   | cps   |
| Bromine    | 81-1  | 13376     | 13129     | 12966     | 13157     | 1.57   | cps   |
| Bromine    | 81-2  | 130       | 130       | 117       | 126       | 6.13   | cps   |
| Cadmium    | 108-1 | 108838    | 108834    | 107994    | 108555    | 0.45   | cps   |
| Cadmium    | 106-1 | 155694    | 156314    | 156170    | 156059    | 0.21   | cps   |
| Cadmium    | 111-1 | 1667412   | 1684802   | 1682272   | 1678162   | 0.56   | cps   |
| Calcium    | 43-1  | 1481441   | 1478499   | 1461202   | 1473714   | 0.74   | cps   |
| Calcium    | 44-1  | 23767891  | 23818440  | 23335231  | 23640521  | 1.12   | cps   |
| Carbon     | 12-1  |           |           |           |           |        | cps   |
| Carbon     | 12-2  |           |           |           |           |        | cps   |
| Chlorine   | 35-1  |           |           |           |           |        | cps   |
| Chlorine   | 35-2  |           |           |           |           |        | cps   |
| Chromium   | 52-2  | 2245895   | 2252116   | 2267176   | 2255062   | 0.49   | cps   |
| Cobalt     | 59-2  | 3548292   | 3529121   | 3556635   | 3544683   | 0.40   | cps   |
| Copper     | 63-2  | 25490005  | 25925815  | 25844218  | 25753346  | 0.90   | cps   |
| Dysprosium | 156-1 | 117       | 147       | 127       | 130       | 11.75  | cps   |
| Dysprosium | 156-2 | 360       | 363       | 367       | 363       | 0.92   | cps   |
| Erbium     | 164-1 | 87        | 147       | 103       | 112       | 27.60  | cps   |
| Erbium     | 164-2 | 80        | 107       | 80        | 89        | 17.32  | cps   |
| Gadolinium | 160-1 | 113       | 100       | 80        | 98        | 17.16  | cps   |
| Gadolinium | 160-2 | 627       | 540       | 500       | 556       | 11.65  | cps   |
| Holmium    | 165-1 | 13536960  | 13450090  | 13159436  | 13382162  | 1.48   | cps   |
| Holmium    | 165-2 | 9421926   | 9568120   | 9442895   | 9477647   | 0.83   | cps   |
| Indium     | 115-1 | 10294583  | 10144152  | 10086273  | 10175003  | 1.06   | cps   |
| Indium     | 115-2 | 3752515   | 3776400   | 3784786   | 3771234   | 0.44   | cps   |
| Iron       | 56-2  | 106977615 | 106886888 | 106433378 | 106765961 | 0.27   | cps   |
| Iron       | 57-2  | 2661323   | 2699229   | 2672655   | 2677736   | 0.73   | cps   |
| Iron       | 54-2  | 5881832   | 5847923   | 5924414   | 5884723   | 0.65   | cps   |
| Krypton    | 83-1  | 187       | 153       | 213       | 184       | 16.30  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S06 Instrumnet Name : P7  
Client Sample ID : S06 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:26:49 DataFile Name : 010CAL.S.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 24154744 | 24258583 | 24374663 | 24262663 | 0.45   | cps   |
| Lead       | 207-1 | 21075121 | 21373067 | 21220148 | 21222779 | 0.70   | cps   |
| Lead       | 208-1 | 95853144 | 97572689 | 97578029 | 97001287 | 1.03   | cps   |
| Lithium    | 6-1   | 1492010  | 1488485  | 1498246  | 1492914  | 0.33   | cps   |
| Magnesium  | 24-2  | 20544248 | 20278705 | 20640986 | 20487980 | 0.92   | cps   |
| Manganese  | 55-2  | 18335694 | 18593773 | 18221227 | 18383565 | 1.04   | cps   |
| Molybdenum | 94-1  | 20092411 | 20143946 | 19780672 | 20005677 | 0.98   | cps   |
| Molybdenum | 95-1  | 28690464 | 28690940 | 28236806 | 28539403 | 0.92   | cps   |
| Molybdenum | 96-1  | 31624695 | 31560654 | 31380877 | 31522075 | 0.40   | cps   |
| Molybdenum | 97-1  | 18196214 | 18184512 | 18046618 | 18142448 | 0.46   | cps   |
| Molybdenum | 98-1  | 46651393 | 46835979 | 46075633 | 46521002 | 0.85   | cps   |
| Neodymium  | 150-1 | 420      | 357      | 393      | 390      | 8.15   | cps   |
| Neodymium  | 150-2 | 123      | 77       | 97       | 99       | 23.67  | cps   |
| Nickel     | 60-2  | 863265   | 861322   | 862233   | 862273   | 0.11   | cps   |
| Phosphorus | 31-2  | 123610   | 124114   | 124121   | 123949   | 0.24   | cps   |
| Potassium  | 39-2  | 13062221 | 13069374 | 13089701 | 13073766 | 0.11   | cps   |
| Rhodium    | 103-1 | 9513776  | 9339537  | 9323957  | 9392423  | 1.12   | cps   |
| Rhodium    | 103-2 | 5646437  | 5702476  | 5645385  | 5664766  | 0.58   | cps   |
| Scandium   | 45-1  | 5495800  | 5401430  | 5365974  | 5421068  | 1.24   | cps   |
| Scandium   | 45-2  | 482785   | 483769   | 485907   | 484154   | 0.33   | cps   |
| Selenium   | 82-1  | 88818    | 87598    | 88477    | 88298    | 0.71   | cps   |
| Selenium   | 77-2  | 9800     | 9657     | 9747     | 9734     | 0.74   | cps   |
| Selenium   | 78-2  | 32539    | 31908    | 32836    | 32428    | 1.46   | cps   |
| Silicon    | 28-1  | 7020738  | 6939213  | 6893937  | 6951296  | 0.92   | cps   |
| Silver     | 107-1 | 7686726  | 7578184  | 7559870  | 7608260  | 0.90   | cps   |
| Silver     | 109-1 | 7281342  | 7218972  | 7176708  | 7225674  | 0.73   | cps   |
| Sodium     | 23-2  | 33724679 | 33658282 | 34067289 | 33816750 | 0.65   | cps   |
| Strontium  | 86-1  | 1781891  | 1788544  | 1804877  | 1791771  | 0.66   | cps   |
| Strontium  | 88-1  | 15473092 | 15780964 | 15568022 | 15607359 | 1.01   | cps   |
| Sulfur     | 34-1  | 577457   | 577228   | 569854   | 574846   | 0.75   | cps   |
| Terbium    | 159-1 | 13841184 | 13774938 | 13645997 | 13754040 | 0.72   | cps   |
| Terbium    | 159-2 | 9274692  | 9429940  | 9288550  | 9331061  | 0.92   | cps   |
| Thallium   | 203-1 | 6123045  | 6084647  | 6091352  | 6099681  | 0.34   | cps   |
| Thallium   | 205-1 | 14356354 | 14597923 | 14466619 | 14473632 | 0.84   | cps   |
| Tin        | 118-1 | 4901879  | 4941758  | 4788995  | 4877544  | 1.62   | cps   |
| Titanium   | 47-1  | 6878918  | 6894432  | 6817656  | 6863669  | 0.59   | cps   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

S06

Instrumnet Name :

P7

Client Sample ID :

S06

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 16:26:49

DataFile Name :

010CALS.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 18022698 | 18328492 | 18330918 | 18227369 | 0.97   | cps   |
| Vanadium  | 51-2  | 1998428  | 1973991  | 1989800  | 1987406  | 0.62   | cps   |
| Yttrium   | 89-1  | 12044635 | 11556096 | 11741580 | 11780770 | 2.09   | cps   |
| Yttrium   | 89-2  | 3247342  | 3302965  | 3234007  | 3261438  | 1.12   | cps   |
| Zinc      | 66-2  | 4328664  | 4421858  | 4418658  | 4389727  | 1.21   | cps   |
| Zirconium | 90-1  | 9666658  | 9784908  | 9600317  | 9683961  | 0.97   | cps   |
| Zirconium | 91-1  | 2121517  | 2157259  | 2070684  | 2116486  | 2.06   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S07 Instrumnet Name : P7  
Client Sample ID : S07 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:29:33 DataFile Name : 011CAL.S.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Aluminium  | 27-2  | 5165471   | 5272671   | 5252299   | 5230147   | 1.09   | cps   |
| Antimony   | 121-1 | 11666455  | 11934759  | 11843642  | 11814952  | 1.15   | cps   |
| Arsenic    | 75-2  | 585448    | 583953    | 583068    | 584156    | 0.21   | cps   |
| Barium     | 135-1 | 15046297  | 15340176  | 15311101  | 15232525  | 1.06   | cps   |
| Barium     | 137-1 | 25775856  | 26198544  | 26077897  | 26017432  | 0.84   | cps   |
| Beryllium  | 9-1   | 1331886   | 1369702   | 1375734   | 1359107   | 1.75   | cps   |
| Bismuth    | 209-1 | 8173226   | 8173434   | 8216515   | 8187725   | 0.30   | cps   |
| Bismuth    | 209-2 | 6605729   | 6634533   | 6664751   | 6635004   | 0.44   | cps   |
| Bromine    | 81-1  | 12025     | 12522     | 12118     | 12222     | 2.16   | cps   |
| Bromine    | 81-2  | 103       | 93        | 123       | 107       | 14.32  | cps   |
| Cadmium    | 108-1 | 208149    | 212352    | 211168    | 210556    | 1.03   | cps   |
| Cadmium    | 106-1 | 300448    | 302280    | 302065    | 301597    | 0.33   | cps   |
| Cadmium    | 111-1 | 3379423   | 3459403   | 3441684   | 3426837   | 1.23   | cps   |
| Calcium    | 43-1  | 2830885   | 2853781   | 2892198   | 2858955   | 1.08   | cps   |
| Calcium    | 44-1  | 46203979  | 46429181  | 46812189  | 46481783  | 0.66   | cps   |
| Carbon     | 12-1  |           |           |           |           |        | cps   |
| Carbon     | 12-2  |           |           |           |           |        | cps   |
| Chlorine   | 35-1  |           |           |           |           |        | cps   |
| Chlorine   | 35-2  |           |           |           |           |        | cps   |
| Chromium   | 52-2  | 4468374   | 4462471   | 4427235   | 4452693   | 0.50   | cps   |
| Cobalt     | 59-2  | 6991084   | 6967322   | 6902584   | 6953664   | 0.66   | cps   |
| Copper     | 63-2  | 51122414  | 51370099  | 50088128  | 50860214  | 1.34   | cps   |
| Dysprosium | 156-1 | 230       | 217       | 263       | 237       | 10.16  | cps   |
| Dysprosium | 156-2 | 813       | 753       | 703       | 757       | 7.28   | cps   |
| Erbium     | 164-1 | 147       | 190       | 200       | 179       | 15.85  | cps   |
| Erbium     | 164-2 | 123       | 97        | 167       | 129       | 27.41  | cps   |
| Gadolinium | 160-1 | 160       | 113       | 127       | 133       | 18.03  | cps   |
| Gadolinium | 160-2 | 593       | 597       | 513       | 568       | 8.31   | cps   |
| Holmium    | 165-1 | 13315315  | 13496699  | 13410172  | 13407395  | 0.68   | cps   |
| Holmium    | 165-2 | 9518842   | 9515620   | 9560018   | 9531494   | 0.26   | cps   |
| Indium     | 115-1 | 9985945   | 9930260   | 9901788   | 9939331   | 0.43   | cps   |
| Indium     | 115-2 | 3677872   | 3717791   | 3637759   | 3677807   | 1.09   | cps   |
| Iron       | 56-2  | 210869250 | 210284177 | 207948250 | 209700559 | 0.74   | cps   |
| Iron       | 57-2  | 5348975   | 5356181   | 5246482   | 5317213   | 1.15   | cps   |
| Iron       | 54-2  | 11565835  | 11543502  | 11630156  | 11579831  | 0.39   | cps   |
| Krypton    | 83-1  | 203       | 230       | 227       | 220       | 6.60   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S07 Instrumnet Name : P7  
Client Sample ID : S07 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:29:33 DataFile Name : 011CAL.S.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Lead       | 206-1 | 47234581  | 49268878  | 48813941  | 48439133  | 2.20   | cps   |
| Lead       | 207-1 | 41569588  | 42231929  | 42441956  | 42081158  | 1.08   | cps   |
| Lead       | 208-1 | 189659317 | 193618052 | 194538492 | 192605287 | 1.35   | cps   |
| Lithium    | 6-1   | 1475800   | 1508938   | 1479721   | 1488153   | 1.22   | cps   |
| Magnesium  | 24-2  | 40434097  | 40428721  | 40479734  | 40447517  | 0.07   | cps   |
| Manganese  | 55-2  | 36195703  | 36350598  | 36032992  | 36193098  | 0.44   | cps   |
| Molybdenum | 94-1  | 38989904  | 39510964  | 40366901  | 39622589  | 1.75   | cps   |
| Molybdenum | 95-1  | 56104901  | 56469006  | 57481587  | 56685165  | 1.26   | cps   |
| Molybdenum | 96-1  | 62248411  | 62312797  | 62741427  | 62434212  | 0.43   | cps   |
| Molybdenum | 97-1  | 35476544  | 36034042  | 36022617  | 35844401  | 0.89   | cps   |
| Molybdenum | 98-1  | 91694392  | 92753279  | 92770159  | 92405943  | 0.67   | cps   |
| Neodymium  | 150-1 | 587       | 740       | 677       | 668       | 11.54  | cps   |
| Neodymium  | 150-2 | 157       | 140       | 223       | 173       | 25.44  | cps   |
| Nickel     | 60-2  | 1762358   | 1802277   | 1747834   | 1770823   | 1.59   | cps   |
| Phosphorus | 31-2  | 244047    | 244272    | 242549    | 243622    | 0.38   | cps   |
| Potassium  | 39-2  | 25806275  | 26022798  | 25650658  | 25826577  | 0.72   | cps   |
| Rhodium    | 103-1 | 9012954   | 9126049   | 8930229   | 9023078   | 1.09   | cps   |
| Rhodium    | 103-2 | 5562168   | 5609347   | 5531079   | 5567531   | 0.71   | cps   |
| Scandium   | 45-1  | 5362303   | 5339810   | 5305532   | 5335882   | 0.54   | cps   |
| Scandium   | 45-2  | 485317    | 483433    | 482232    | 483661    | 0.32   | cps   |
| Selenium   | 82-1  | 170092    | 170561    | 171721    | 170791    | 0.49   | cps   |
| Selenium   | 77-2  | 18936     | 19383     | 18872     | 19063     | 1.46   | cps   |
| Selenium   | 78-2  | 62873     | 63016     | 62595     | 62828     | 0.34   | cps   |
| Silicon    | 28-1  | 13046761  | 13014645  | 13081679  | 13047695  | 0.26   | cps   |
| Silver     | 107-1 | 14639639  | 14843161  | 14706780  | 14729860  | 0.70   | cps   |
| Silver     | 109-1 | 13907955  | 14146699  | 14170926  | 14075193  | 1.03   | cps   |
| Sodium     | 23-2  | 66843232  | 67107062  | 66979212  | 66976502  | 0.20   | cps   |
| Strontium  | 86-1  | 3460699   | 3542326   | 3547795   | 3516940   | 1.39   | cps   |
| Strontium  | 88-1  | 30682817  | 31209031  | 31087379  | 30993076  | 0.89   | cps   |
| Sulfur     | 34-1  | 947308    | 961092    | 963149    | 957183    | 0.90   | cps   |
| Terbium    | 159-1 | 13748594  | 13997201  | 13647424  | 13797740  | 1.30   | cps   |
| Terbium    | 159-2 | 9434522   | 9502288   | 9379093   | 9438634   | 0.65   | cps   |
| Thallium   | 203-1 | 11852618  | 12104076  | 12273971  | 12076889  | 1.76   | cps   |
| Thallium   | 205-1 | 28746635  | 29197062  | 29087383  | 29010360  | 0.81   | cps   |
| Tin        | 118-1 | 9571308   | 9783178   | 9674805   | 9676430   | 1.09   | cps   |
| Titanium   | 47-1  | 13241200  | 13472819  | 13510647  | 13408222  | 1.09   | cps   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

S07

Instrumnet Name :

P7

Client Sample ID :

S07

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 16:29:33

DataFile Name :

011CALS.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 36317124 | 37625970 | 36936894 | 36959996 | 1.77   | cps   |
| Vanadium  | 51-2  | 3946121  | 3980890  | 3964055  | 3963688  | 0.44   | cps   |
| Yttrium   | 89-1  | 11773418 | 11663820 | 11495274 | 11644171 | 1.20   | cps   |
| Yttrium   | 89-2  | 3255852  | 3207907  | 3187807  | 3217189  | 1.09   | cps   |
| Zinc      | 66-2  | 8475069  | 8650395  | 8574129  | 8566531  | 1.03   | cps   |
| Zirconium | 90-1  | 18971141 | 19308422 | 19414057 | 19231207 | 1.20   | cps   |
| Zirconium | 91-1  | 4188762  | 4283484  | 4317780  | 4263342  | 1.57   | cps   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :S08Instrumnet Name :P7

Client Sample ID :S08Dilution Factor :1

Date & Time Acquired :2024-12-21 16:32:20DataFile Name :012CALS.d

| Parameter  | Mass  | CPS1       | CPS2       | CPS3       | CPSMean    | CPSRSD | Units |
|------------|-------|------------|------------|------------|------------|--------|-------|
| Aluminium  | 27-2  | 27244415   | 27192175   | 27139597   | 27192063   | 0.19   | cps   |
| Antimony   | 121-1 | 6632       | 6445       | 6001       | 6359       | 5.09   | cps   |
| Arsenic    | 75-2  | 383        | 380        | 340        | 368        | 6.56   | cps   |
| Barium     | 135-1 | 7575       | 7229       | 6465       | 7090       | 8.01   | cps   |
| Barium     | 137-1 | 12415      | 12189      | 11785      | 12130      | 2.63   | cps   |
| Beryllium  | 9-1   | 483        | 393        | 387        | 421        | 12.82  | cps   |
| Bismuth    | 209-1 | 7177663    | 7064862    | 7061324    | 7101283    | 0.93   | cps   |
| Bismuth    | 209-2 | 5838890    | 5697181    | 5862387    | 5799486    | 1.54   | cps   |
| Bromine    | 81-1  | 12632      | 12756      | 12662      | 12683      | 0.51   | cps   |
| Bromine    | 81-2  | 157        | 117        | 137        | 137        | 14.63  | cps   |
| Cadmium    | 108-1 | 120        | 107        | 113        | 113        | 5.88   | cps   |
| Cadmium    | 106-1 | 3040       | 2847       | 2850       | 2913       | 3.80   | cps   |
| Cadmium    | 111-1 | 3028       | 2726       | 2657       | 2803       | 7.03   | cps   |
| Calcium    | 43-1  | 13995166   | 13993991   | 14010471   | 13999876   | 0.07   | cps   |
| Calcium    | 44-1  | 226416777  | 226694970  | 225315843  | 226142530  | 0.32   | cps   |
| Carbon     | 12-1  |            |            |            |            |        | cps   |
| Carbon     | 12-2  |            |            |            |            |        | cps   |
| Chlorine   | 35-1  |            |            |            |            |        | cps   |
| Chlorine   | 35-2  |            |            |            |            |        | cps   |
| Chromium   | 52-2  | 8854       | 7692       | 7105       | 7884       | 11.29  | cps   |
| Cobalt     | 59-2  | 18745      | 18959      | 18959      | 18888      | 0.65   | cps   |
| Copper     | 63-2  | 10921      | 9997       | 9116       | 10011      | 9.01   | cps   |
| Dysprosium | 156-1 | 407        | 430        | 427        | 421        | 3.00   | cps   |
| Dysprosium | 156-2 | 333        | 347        | 350        | 343        | 2.57   | cps   |
| Erbium     | 164-1 | 487        | 490        | 500        | 492        | 1.41   | cps   |
| Erbium     | 164-2 | 323        | 400        | 353        | 359        | 10.77  | cps   |
| Gadolinium | 160-1 | 413        | 430        | 443        | 429        | 3.51   | cps   |
| Gadolinium | 160-2 | 850        | 893        | 843        | 862        | 3.15   | cps   |
| Holmium    | 165-1 | 12917470   | 12755320   | 12630934   | 12767908   | 1.13   | cps   |
| Holmium    | 165-2 | 9064609    | 9080812    | 8972649    | 9039357    | 0.65   | cps   |
| Indium     | 115-1 | 9432887    | 9214912    | 9137073    | 9261624    | 1.66   | cps   |
| Indium     | 115-2 | 3579365    | 3579590    | 3599680    | 3586212    | 0.33   | cps   |
| Iron       | 56-2  | 1025623078 | 1028956571 | 1021474358 | 1025351336 | 0.37   | cps   |
| Iron       | 57-2  | 26100876   | 26091598   | 26072261   | 26088245   | 0.06   | cps   |
| Iron       | 54-2  | 56284857   | 56434827   | 56135379   | 56285021   | 0.27   | cps   |
| Krypton    | 83-1  | 210        | 177        | 230        | 206        | 13.11  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : S08 Instrumnet Name : P7  
Client Sample ID : S08 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 16:32:20 DataFile Name : 012CAL.S.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Lead       | 206-1 | 13850     | 13003     | 11835     | 12896     | 7.85   | cps   |
| Lead       | 207-1 | 12132     | 11278     | 10477     | 11296     | 7.33   | cps   |
| Lead       | 208-1 | 55004     | 51101     | 47436     | 51180     | 7.39   | cps   |
| Lithium    | 6-1   | 1368306   | 1339943   | 1399546   | 1369265   | 2.18   | cps   |
| Magnesium  | 24-2  | 218052790 | 214969523 | 217675477 | 216899263 | 0.78   | cps   |
| Manganese  | 55-2  | 18008     | 17413     | 16619     | 17347     | 4.01   | cps   |
| Molybdenum | 94-1  | 13583     | 12275     | 11141     | 12333     | 9.91   | cps   |
| Molybdenum | 95-1  | 14184     | 13036     | 11344     | 12855     | 11.11  | cps   |
| Molybdenum | 96-1  | 24320     | 23486     | 21906     | 23237     | 5.28   | cps   |
| Molybdenum | 97-1  | 8919      | 8026      | 7185      | 8043      | 10.78  | cps   |
| Molybdenum | 98-1  | 22174     | 20348     | 17864     | 20129     | 10.75  | cps   |
| Neodymium  | 150-1 | 260       | 267       | 203       | 243       | 14.30  | cps   |
| Neodymium  | 150-2 | 167       | 153       | 137       | 152       | 9.87   | cps   |
| Nickel     | 60-2  | 6258      | 6401      | 6351      | 6337      | 1.15   | cps   |
| Phosphorus | 31-2  | 237       | 203       | 253       | 231       | 11.02  | cps   |
| Potassium  | 39-2  | 132701578 | 132998901 | 133800908 | 133167129 | 0.43   | cps   |
| Rhodium    | 103-1 | 8372053   | 8210288   | 8193076   | 8258472   | 1.20   | cps   |
| Rhodium    | 103-2 | 5095893   | 5078260   | 5085804   | 5086652   | 0.17   | cps   |
| Scandium   | 45-1  | 5322167   | 5244081   | 5266433   | 5277560   | 0.76   | cps   |
| Scandium   | 45-2  | 489694    | 487617    | 488372    | 488561    | 0.22   | cps   |
| Selenium   | 82-1  | 505       | 454       | 401       | 453       | 11.47  | cps   |
| Selenium   | 77-2  | 10        | 7         | 3         | 7         | 50.03  | cps   |
| Selenium   | 78-2  | 420       | 373       | 433       | 409       | 7.71   | cps   |
| Silicon    | 28-1  | 644452    | 643568    | 637791    | 641937    | 0.56   | cps   |
| Silver     | 107-1 | 3657      | 3380      | 3044      | 3360      | 9.14   | cps   |
| Silver     | 109-1 | 3564      | 3410      | 2864      | 3279      | 11.22  | cps   |
| Sodium     | 23-2  | 343665928 | 341167022 | 342324328 | 342385759 | 0.37   | cps   |
| Strontium  | 86-1  | 10501     | 10477     | 9963      | 10314     | 2.94   | cps   |
| Strontium  | 88-1  | 91325     | 89543     | 88413     | 89761     | 1.64   | cps   |
| Sulfur     | 34-1  | 158633    | 162803    | 166108    | 162515    | 2.30   | cps   |
| Terbium    | 159-1 | 13276259  | 12851861  | 12888608  | 13005576  | 1.81   | cps   |
| Terbium    | 159-2 | 8877409   | 8896110   | 8908184   | 8893901   | 0.17   | cps   |
| Thallium   | 203-1 | 2444      | 1997      | 1790      | 2077      | 16.08  | cps   |
| Thallium   | 205-1 | 5635      | 4831      | 4074      | 4846      | 16.10  | cps   |
| Tin        | 118-1 | 4704      | 4414      | 4141      | 4420      | 6.38   | cps   |
| Titanium   | 47-1  | 3210      | 3020      | 2450      | 2894      | 13.67  | cps   |

LB Number :LB134060

Operator :Jaswal

Lab Sample ID :S08

Instrumnet Name :P7

Client Sample ID :S08

Dilution Factor :1

Date & Time Acquired :2024-12-21 16:32:20

DataFile Name :012CALS.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 6395     | 5618     | 4541     | 5518     | 16.87  | cps   |
| Vanadium  | 51-2  | 937      | 910      | 793      | 880      | 8.66   | cps   |
| Yttrium   | 89-1  | 11405662 | 11133451 | 11307377 | 11282163 | 1.22   | cps   |
| Yttrium   | 89-2  | 3226198  | 3193986  | 3162800  | 3194328  | 0.99   | cps   |
| Zinc      | 66-2  | 6892     | 6868     | 6735     | 6832     | 1.24   | cps   |
| Zirconium | 90-1  | 13716    | 13073    | 12739    | 13176    | 3.77   | cps   |
| Zirconium | 91-1  | 3040     | 3057     | 2854     | 2984     | 3.78   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : ICV006 Instrumnet Name : P7  
Client Sample ID : ICV006 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:01:52 DataFile Name : 017ICV.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 145505   | 146767   | 145545   | 145939   | 0.49   | cps   |
| Antimony   | 121-1 | 2576271  | 2587984  | 2573119  | 2579124  | 0.30   | cps   |
| Arsenic    | 75-2  | 137729   | 137923   | 135928   | 137193   | 0.80   | cps   |
| Barium     | 135-1 | 310883   | 313183   | 307836   | 310634   | 0.86   | cps   |
| Barium     | 137-1 | 534238   | 535642   | 536185   | 535355   | 0.19   | cps   |
| Beryllium  | 9-1   | 150252   | 151712   | 149599   | 150521   | 0.72   | cps   |
| Bismuth    | 209-1 | 8653151  | 8394666  | 8283363  | 8443726  | 2.25   | cps   |
| Bismuth    | 209-2 | 7003925  | 6898346  | 6903548  | 6935273  | 0.86   | cps   |
| Bromine    | 81-1  | 13870    | 14184    | 13987    | 14013    | 1.13   | cps   |
| Bromine    | 81-2  | 287      | 327      | 340      | 318      | 8.73   | cps   |
| Cadmium    | 108-1 | 21753    | 21433    | 21579    | 21588    | 0.74   | cps   |
| Cadmium    | 106-1 | 32807    | 31968    | 32296    | 32357    | 1.31   | cps   |
| Cadmium    | 111-1 | 326871   | 328864   | 327358   | 327698   | 0.32   | cps   |
| Calcium    | 43-1  | 65045    | 65380    | 65259    | 65228    | 0.26   | cps   |
| Calcium    | 44-1  | 1057851  | 1064981  | 1056557  | 1059796  | 0.43   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 523221   | 524264   | 521077   | 522854   | 0.31   | cps   |
| Cobalt     | 59-2  | 808131   | 815968   | 810814   | 811638   | 0.49   | cps   |
| Copper     | 63-2  | 559915   | 555663   | 557414   | 557664   | 0.38   | cps   |
| Dysprosium | 156-1 | 10       | 7        | 10       | 9        | 21.63  | cps   |
| Dysprosium | 156-2 | 13       | 27       | 23       | 21       | 32.88  | cps   |
| Erbium     | 164-1 | 23       | 40       | 40       | 34       | 27.94  | cps   |
| Erbium     | 164-2 | 23       | 40       | 40       | 34       | 27.94  | cps   |
| Gadolinium | 160-1 | 53       | 43       | 57       | 51       | 13.58  | cps   |
| Gadolinium | 160-2 | 597      | 567      | 500      | 554      | 8.92   | cps   |
| Holmium    | 165-1 | 13668285 | 13614222 | 13521462 | 13601323 | 0.55   | cps   |
| Holmium    | 165-2 | 9847202  | 9614576  | 9617417  | 9693065  | 1.38   | cps   |
| Indium     | 115-1 | 10964048 | 10854743 | 10767959 | 10862250 | 0.90   | cps   |
| Indium     | 115-2 | 4157905  | 4176181  | 4124927  | 4153005  | 0.63   | cps   |
| Iron       | 56-2  | 9565549  | 9579150  | 9650698  | 9598466  | 0.48   | cps   |
| Iron       | 57-2  | 245877   | 245879   | 246429   | 246062   | 0.13   | cps   |
| Iron       | 54-2  | 555484   | 552667   | 555467   | 554539   | 0.29   | cps   |
| Krypton    | 83-1  | 197      | 203      | 190      | 197      | 3.39   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : ICV006 Instrumnet Name : P7  
Client Sample ID : ICV006 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:01:52 DataFile Name : 017ICV.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 2118419  | 2087881  | 2053622  | 2086641  | 1.55   | cps   |
| Lead       | 207-1 | 1606429  | 1582339  | 1593628  | 1594132  | 0.76   | cps   |
| Lead       | 208-1 | 8053509  | 7916097  | 7925463  | 7965023  | 0.96   | cps   |
| Lithium    | 6-1   | 1508456  | 1521034  | 1518024  | 1515838  | 0.43   | cps   |
| Magnesium  | 24-2  | 546400   | 548438   | 548029   | 547622   | 0.20   | cps   |
| Manganese  | 55-2  | 412948   | 413106   | 415141   | 413732   | 0.30   | cps   |
| Molybdenum | 94-1  | 460      | 413      | 507      | 460      | 10.15  | cps   |
| Molybdenum | 95-1  | 273      | 283      | 277      | 278      | 1.83   | cps   |
| Molybdenum | 96-1  | 563      | 523      | 423      | 503      | 14.33  | cps   |
| Molybdenum | 97-1  | 173      | 153      | 193      | 173      | 11.54  | cps   |
| Molybdenum | 98-1  | 480      | 400      | 433      | 438      | 9.18   | cps   |
| Neodymium  | 150-1 | 30       | 13       | 13       | 19       | 50.96  | cps   |
| Neodymium  | 150-2 | 3        | 0        | 3        | 2        | 86.60  | cps   |
| Nickel     | 60-2  | 208651   | 209121   | 207058   | 208277   | 0.52   | cps   |
| Phosphorus | 31-2  | 167      | 157      | 167      | 163      | 3.53   | cps   |
| Potassium  | 39-2  | 1223105  | 1197543  | 1230950  | 1217199  | 1.44   | cps   |
| Rhodium    | 103-1 | 10443573 | 10054092 | 10132869 | 10210178 | 2.02   | cps   |
| Rhodium    | 103-2 | 6228334  | 6281092  | 6164032  | 6224486  | 0.94   | cps   |
| Scandium   | 45-1  | 5923718  | 5899571  | 5801978  | 5875089  | 1.10   | cps   |
| Scandium   | 45-2  | 544515   | 535716   | 539165   | 539799   | 0.82   | cps   |
| Selenium   | 82-1  | 40402    | 40900    | 40620    | 40641    | 0.61   | cps   |
| Selenium   | 77-2  | 4494     | 4474     | 4417     | 4462     | 0.89   | cps   |
| Selenium   | 78-2  | 15922    | 15678    | 16289    | 15963    | 1.93   | cps   |
| Silicon    | 28-1  | 598255   | 602894   | 596886   | 599345   | 0.53   | cps   |
| Silver     | 107-1 | 761822   | 767059   | 767857   | 765579   | 0.43   | cps   |
| Silver     | 109-1 | 728805   | 728922   | 734888   | 730872   | 0.48   | cps   |
| Sodium     | 23-2  | 1543582  | 1520353  | 1533832  | 1532589  | 0.76   | cps   |
| Strontium  | 86-1  | 1207     | 1310     | 1293     | 1270     | 4.37   | cps   |
| Strontium  | 88-1  | 8159     | 8289     | 8166     | 8205     | 0.89   | cps   |
| Sulfur     | 34-1  | 187424   | 185659   | 185629   | 186237   | 0.55   | cps   |
| Terbium    | 159-1 | 13938693 | 13973280 | 13896745 | 13936239 | 0.28   | cps   |
| Terbium    | 159-2 | 9645501  | 9528144  | 9361649  | 9511765  | 1.50   | cps   |
| Thallium   | 203-1 | 2581674  | 2618348  | 2561589  | 2587204  | 1.11   | cps   |
| Thallium   | 205-1 | 6155846  | 6067604  | 6032609  | 6085353  | 1.04   | cps   |
| Tin        | 118-1 | 1570     | 1403     | 1363     | 1446     | 7.58   | cps   |
| Titanium   | 47-1  | 87       | 107      | 93       | 96       | 10.66  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : ICV006 Instrumnet Name : P7  
Client Sample ID : ICV006 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:01:52 DataFile Name : 017ICV.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 53       | 33       | 20       | 36       | 47.19  | cps   |
| Vanadium  | 51-2  | 446573   | 447269   | 447529   | 447124   | 0.11   | cps   |
| Yttrium   | 89-1  | 12447310 | 12508606 | 12395747 | 12450554 | 0.45   | cps   |
| Yttrium   | 89-2  | 3496926  | 3482335  | 3494725  | 3491329  | 0.23   | cps   |
| Zinc      | 66-2  | 194985   | 195735   | 193949   | 194890   | 0.46   | cps   |
| Zirconium | 90-1  | 800      | 763      | 780      | 781      | 2.35   | cps   |
| Zirconium | 91-1  | 433      | 410      | 413      | 419      | 3.01   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : ICB006 Instrumnet Name : P7  
Client Sample ID : ICB006 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:08:20 DataFile Name : 019CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 107      | 120      | 123      | 117      | 7.56   | cps   |
| Antimony   | 121-1 | 397      | 373      | 463      | 411      | 11.36  | cps   |
| Arsenic    | 75-2  | 7        | 3        | 7        | 6        | 34.70  | cps   |
| Barium     | 135-1 | 43       | 37       | 30       | 37       | 18.18  | cps   |
| Barium     | 137-1 | 67       | 100      | 117      | 94       | 26.96  | cps   |
| Beryllium  | 9-1   | 93       | 80       | 90       | 88       | 7.90   | cps   |
| Bismuth    | 209-1 | 8554585  | 8412065  | 8363885  | 8443512  | 1.17   | cps   |
| Bismuth    | 209-2 | 6971937  | 7058931  | 7024279  | 7018382  | 0.62   | cps   |
| Bromine    | 81-1  | 13526    | 14127    | 13913    | 13855    | 2.20   | cps   |
| Bromine    | 81-2  | 147      | 120      | 137      | 134      | 10.02  | cps   |
| Cadmium    | 108-1 | 7        | 7        | 3        | 6        | 34.70  | cps   |
| Cadmium    | 106-1 | 3140     | 3047     | 2960     | 3049     | 2.95   | cps   |
| Cadmium    | 111-1 | 2220     | 2152     | 2117     | 2163     | 2.43   | cps   |
| Calcium    | 43-1  | 270      | 293      | 253      | 272      | 7.38   | cps   |
| Calcium    | 44-1  | 8452     | 8666     | 8859     | 8659     | 2.35   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 1297     | 1270     | 1347     | 1305     | 2.98   | cps   |
| Cobalt     | 59-2  | 143      | 103      | 110      | 119      | 18.03  | cps   |
| Copper     | 63-2  | 643      | 700      | 700      | 681      | 4.80   | cps   |
| Dysprosium | 156-1 | 3        | 7        | 17       | 9        | 78.08  | cps   |
| Dysprosium | 156-2 | 3        | 3        | 10       | 6        | 69.34  | cps   |
| Erbium     | 164-1 | 57       | 43       | 57       | 52       | 14.75  | cps   |
| Erbium     | 164-2 | 33       | 30       | 40       | 34       | 14.78  | cps   |
| Gadolinium | 160-1 | 47       | 63       | 77       | 62       | 24.16  | cps   |
| Gadolinium | 160-2 | 543      | 573      | 513      | 543      | 5.52   | cps   |
| Holmium    | 165-1 | 13409067 | 13440825 | 13626289 | 13492060 | 0.87   | cps   |
| Holmium    | 165-2 | 9798782  | 9737895  | 9747903  | 9761527  | 0.33   | cps   |
| Indium     | 115-1 | 10945846 | 10908805 | 10882420 | 10912357 | 0.29   | cps   |
| Indium     | 115-2 | 4200935  | 4155460  | 4148257  | 4168218  | 0.69   | cps   |
| Iron       | 56-2  | 18081    | 18041    | 17657    | 17926    | 1.31   | cps   |
| Iron       | 57-2  | 973      | 870      | 980      | 941      | 6.55   | cps   |
| Iron       | 54-2  | 2664     | 2617     | 2690     | 2657     | 1.40   | cps   |
| Krypton    | 83-1  | 213      | 190      | 203      | 202      | 5.79   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : ICB006 Instrumnet Name : P7  
Client Sample ID : ICB006 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:08:20 DataFile Name : 019CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 647      | 657      | 583      | 629      | 6.32   | cps   |
| Lead       | 207-1 | 533      | 637      | 483      | 551      | 14.19  | cps   |
| Lead       | 208-1 | 2437     | 2583     | 2240     | 2420     | 7.12   | cps   |
| Lithium    | 6-1   | 1475993  | 1520124  | 1488796  | 1494971  | 1.52   | cps   |
| Magnesium  | 24-2  | 527      | 553      | 570      | 550      | 3.97   | cps   |
| Manganese  | 55-2  | 287      | 300      | 333      | 307      | 7.84   | cps   |
| Molybdenum | 94-1  | 310      | 250      | 263      | 274      | 11.48  | cps   |
| Molybdenum | 95-1  | 150      | 170      | 150      | 157      | 7.37   | cps   |
| Molybdenum | 96-1  | 187      | 193      | 253      | 211      | 17.39  | cps   |
| Molybdenum | 97-1  | 123      | 123      | 93       | 113      | 15.29  | cps   |
| Molybdenum | 98-1  | 280      | 237      | 257      | 258      | 8.41   | cps   |
| Neodymium  | 150-1 | 7        | 10       | 7        | 8        | 24.71  | cps   |
| Neodymium  | 150-2 | 0        | 3        | 3        | 2        | 86.60  | cps   |
| Nickel     | 60-2  | 367      | 353      | 437      | 386      | 11.61  | cps   |
| Phosphorus | 31-2  | 160      | 180      | 133      | 158      | 14.84  | cps   |
| Potassium  | 39-2  | 54995    | 55440    | 55568    | 55334    | 0.54   | cps   |
| Rhodium    | 103-1 | 10196978 | 10192434 | 10201242 | 10196885 | 0.04   | cps   |
| Rhodium    | 103-2 | 6408171  | 6326358  | 6322534  | 6352354  | 0.76   | cps   |
| Scandium   | 45-1  | 5955053  | 5895115  | 5789085  | 5879751  | 1.43   | cps   |
| Scandium   | 45-2  | 545734   | 543680   | 542364   | 543926   | 0.31   | cps   |
| Selenium   | 82-1  | 292      | 350      | 291      | 311      | 10.87  | cps   |
| Selenium   | 77-2  | 0        | 0        | 0        | 0        | 0.00   | cps   |
| Selenium   | 78-2  | 490      | 490      | 483      | 488      | 0.79   | cps   |
| Silicon    | 28-1  | 604000   | 602374   | 603489   | 603288   | 0.14   | cps   |
| Silver     | 107-1 | 200      | 157      | 177      | 178      | 12.20  | cps   |
| Silver     | 109-1 | 133      | 143      | 120      | 132      | 8.86   | cps   |
| Sodium     | 23-2  | 21956    | 22547    | 21702    | 22068    | 1.96   | cps   |
| Strontium  | 86-1  | 337      | 303      | 253      | 298      | 14.08  | cps   |
| Strontium  | 88-1  | 170      | 203      | 190      | 188      | 8.94   | cps   |
| Sulfur     | 34-1  | 186817   | 186921   | 188959   | 187566   | 0.64   | cps   |
| Terbium    | 159-1 | 13830706 | 13782731 | 13890905 | 13834781 | 0.39   | cps   |
| Terbium    | 159-2 | 9788901  | 9686791  | 9721810  | 9732501  | 0.53   | cps   |
| Thallium   | 203-1 | 307      | 307      | 340      | 318      | 6.06   | cps   |
| Thallium   | 205-1 | 780      | 800      | 737      | 772      | 4.19   | cps   |
| Tin        | 118-1 | 1550     | 1433     | 1183     | 1389     | 13.49  | cps   |
| Titanium   | 47-1  | 73       | 100      | 93       | 89       | 15.61  | cps   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

ICB006

Instrumnet Name :

P7

Client Sample ID :

ICB006

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 17:08:20

DataFile Name :

019CCBE.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 10       | 13       | 30       | 18       | 60.28  | cps   |
| Vanadium  | 51-2  | 7        | 10       | 13       | 10       | 33.30  | cps   |
| Yttrium   | 89-1  | 12567847 | 12506601 | 12525315 | 12533255 | 0.25   | cps   |
| Yttrium   | 89-2  | 3532187  | 3602611  | 3567269  | 3567356  | 0.99   | cps   |
| Zinc      | 66-2  | 313      | 377      | 317      | 336      | 10.62  | cps   |
| Zirconium | 90-1  | 587      | 580      | 513      | 560      | 7.24   | cps   |
| Zirconium | 91-1  | 133      | 110      | 133      | 126      | 10.73  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : ICSA006 Instrumnet Name : P7  
Client Sample ID : ICSA006 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:11:36 DataFile Name : 020ICSA.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Aluminium  | 27-2  | 25898426  | 25522363  | 25319309  | 25580033  | 1.15   | cps   |
| Antimony   | 121-1 | 13396     | 13093     | 13450     | 13313     | 1.45   | cps   |
| Arsenic    | 75-2  | 213       | 173       | 200       | 196       | 10.41  | cps   |
| Barium     | 135-1 | 4251      | 4371      | 4321      | 4314      | 1.40   | cps   |
| Barium     | 137-1 | 7579      | 7449      | 7465      | 7498      | 0.94   | cps   |
| Beryllium  | 9-1   | 470       | 467       | 397       | 444       | 9.32   | cps   |
| Bismuth    | 209-1 | 8070769   | 8056596   | 8075951   | 8067772   | 0.12   | cps   |
| Bismuth    | 209-2 | 6633326   | 6526726   | 6601275   | 6587109   | 0.83   | cps   |
| Bromine    | 81-1  | 14077     | 14027     | 14561     | 14221     | 2.07   | cps   |
| Bromine    | 81-2  | 437       | 440       | 387       | 421       | 7.10   | cps   |
| Cadmium    | 108-1 | 1940      | 1973      | 1660      | 1858      | 9.26   | cps   |
| Cadmium    | 106-1 | 2974      | 2914      | 3010      | 2966      | 1.65   | cps   |
| Cadmium    | 111-1 | 3290      | 3136      | 3339      | 3255      | 3.26   | cps   |
| Calcium    | 43-1  | 2956442   | 3015756   | 2992724   | 2988307   | 1.00   | cps   |
| Calcium    | 44-1  | 48331938  | 48937976  | 47971281  | 48413732  | 1.01   | cps   |
| Carbon     | 12-1  |           |           |           |           |        | cps   |
| Carbon     | 12-2  |           |           |           |           |        | cps   |
| Chlorine   | 35-1  |           |           |           |           |        | cps   |
| Chlorine   | 35-2  |           |           |           |           |        | cps   |
| Chromium   | 52-2  | 96489     | 96063     | 96147     | 96233     | 0.23   | cps   |
| Cobalt     | 59-2  | 9213      | 9043      | 9330      | 9195      | 1.57   | cps   |
| Copper     | 63-2  | 38145     | 37744     | 38386     | 38092     | 0.85   | cps   |
| Dysprosium | 156-1 | 60        | 57        | 90        | 69        | 26.65  | cps   |
| Dysprosium | 156-2 | 37        | 20        | 43        | 33        | 36.05  | cps   |
| Erbium     | 164-1 | 120       | 80        | 107       | 102       | 19.92  | cps   |
| Erbium     | 164-2 | 83        | 87        | 80        | 83        | 4.00   | cps   |
| Gadolinium | 160-1 | 87        | 100       | 113       | 100       | 13.33  | cps   |
| Gadolinium | 160-2 | 520       | 523       | 503       | 516       | 2.08   | cps   |
| Holmium    | 165-1 | 13636202  | 13655094  | 13627376  | 13639557  | 0.10   | cps   |
| Holmium    | 165-2 | 9898386   | 9683146   | 9777508   | 9786347   | 1.10   | cps   |
| Indium     | 115-1 | 10390332  | 10228016  | 10201167  | 10273172  | 1.00   | cps   |
| Indium     | 115-2 | 3871648   | 3806160   | 3903274   | 3860361   | 1.28   | cps   |
| Iron       | 56-2  | 450913820 | 437623047 | 441067433 | 443201433 | 1.56   | cps   |
| Iron       | 57-2  | 11235774  | 11005610  | 11205765  | 11149049  | 1.12   | cps   |
| Iron       | 54-2  | 24534461  | 24327033  | 24650888  | 24504127  | 0.67   | cps   |
| Krypton    | 83-1  | 177       | 180       | 160       | 172       | 6.22   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : ICSA006 Instrumnet Name : P7  
Client Sample ID : ICSA006 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:11:36 DataFile Name : 020ICSA.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 50383    | 48606    | 46693    | 48561    | 3.80   | cps   |
| Lead       | 207-1 | 40046    | 38578    | 37712    | 38779    | 3.04   | cps   |
| Lead       | 208-1 | 188567   | 180678   | 176717   | 181987   | 3.31   | cps   |
| Lithium    | 6-1   | 1483234  | 1468836  | 1421512  | 1457861  | 2.22   | cps   |
| Magnesium  | 24-2  | 42360228 | 41514828 | 41884136 | 41919730 | 1.01   | cps   |
| Manganese  | 55-2  | 29552    | 30100    | 30591    | 30081    | 1.73   | cps   |
| Molybdenum | 94-1  | 6535852  | 6720411  | 6623479  | 6626581  | 1.39   | cps   |
| Molybdenum | 95-1  | 11628328 | 11690970 | 11478999 | 11599432 | 0.94   | cps   |
| Molybdenum | 96-1  | 12546202 | 12509916 | 12540032 | 12532050 | 0.15   | cps   |
| Molybdenum | 97-1  | 7222987  | 7300057  | 7268267  | 7263771  | 0.53   | cps   |
| Molybdenum | 98-1  | 18735385 | 18830356 | 18805886 | 18790543 | 0.26   | cps   |
| Neodymium  | 150-1 | 57       | 57       | 50       | 54       | 7.07   | cps   |
| Neodymium  | 150-2 | 17       | 37       | 33       | 29       | 37.08  | cps   |
| Nickel     | 60-2  | 10174    | 9983     | 10187    | 10115    | 1.13   | cps   |
| Phosphorus | 31-2  | 1274921  | 1273842  | 1268341  | 1272368  | 0.28   | cps   |
| Potassium  | 39-2  | 54043661 | 53231671 | 53202566 | 53492633 | 0.89   | cps   |
| Rhodium    | 103-1 | 9281498  | 9293955  | 9168561  | 9248005  | 0.75   | cps   |
| Rhodium    | 103-2 | 5743180  | 5703897  | 5749988  | 5732355  | 0.43   | cps   |
| Scandium   | 45-1  | 5536805  | 5549880  | 5465264  | 5517316  | 0.83   | cps   |
| Scandium   | 45-2  | 504260   | 497987   | 500013   | 500754   | 0.64   | cps   |
| Selenium   | 82-1  | 369      | 377      | 373      | 373      | 1.04   | cps   |
| Selenium   | 77-2  | 3        | 0        | 7        | 3        | 100.05 | cps   |
| Selenium   | 78-2  | 383      | 407      | 467      | 419      | 10.26  | cps   |
| Silicon    | 28-1  | 631154   | 621845   | 625867   | 626288   | 0.75   | cps   |
| Silver     | 107-1 | 870      | 853      | 583      | 769      | 20.93  | cps   |
| Silver     | 109-1 | 913      | 683      | 457      | 684      | 33.36  | cps   |
| Sodium     | 23-2  | 70319891 | 69106671 | 68984901 | 69470487 | 1.06   | cps   |
| Strontium  | 86-1  | 123805   | 124121   | 124299   | 124075   | 0.20   | cps   |
| Strontium  | 88-1  | 1080449  | 1077250  | 1080797  | 1079499  | 0.18   | cps   |
| Sulfur     | 34-1  | 4363396  | 4368500  | 4353779  | 4361892  | 0.17   | cps   |
| Terbium    | 159-1 | 13853501 | 14043224 | 13734793 | 13877173 | 1.12   | cps   |
| Terbium    | 159-2 | 9617392  | 9446033  | 9622518  | 9561981  | 1.05   | cps   |
| Thallium   | 203-1 | 1577     | 1730     | 1960     | 1756     | 10.99  | cps   |
| Thallium   | 205-1 | 3571     | 4461     | 4614     | 4215     | 13.37  | cps   |
| Tin        | 118-1 | 3164     | 3117     | 3127     | 3136     | 0.78   | cps   |
| Titanium   | 47-1  | 2878966  | 2908010  | 2872094  | 2886357  | 0.66   | cps   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

ICSA006

Instrumnet Name :

P7

Client Sample ID :

ICSA006

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 17:11:36

DataFile Name :

020ICSA.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 527      | 630      | 607      | 588      | 9.22   | cps   |
| Vanadium  | 51-2  | 847      | 803      | 860      | 837      | 3.54   | cps   |
| Yttrium   | 89-1  | 11818721 | 11998093 | 11985899 | 11934238 | 0.84   | cps   |
| Yttrium   | 89-2  | 3357772  | 3349458  | 3353827  | 3353685  | 0.12   | cps   |
| Zinc      | 66-2  | 10000    | 9653     | 10267    | 9973     | 3.09   | cps   |
| Zirconium | 90-1  | 1183     | 1293     | 1373     | 1283     | 7.43   | cps   |
| Zirconium | 91-1  | 267      | 287      | 330      | 294      | 11.00  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : ICSAB006 Instrumnet Name : P7  
Client Sample ID : ICSAB006 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:20:33 DataFile Name : 023ICSB.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Aluminium  | 27-2  | 25773955  | 25711534  | 25595150  | 25693546  | 0.35   | cps   |
| Antimony   | 121-1 | 256157    | 260744    | 260212    | 259038    | 0.97   | cps   |
| Arsenic    | 75-2  | 12425     | 13126     | 13329     | 12960     | 3.66   | cps   |
| Barium     | 135-1 | 65845     | 67191     | 67616     | 66884     | 1.38   | cps   |
| Barium     | 137-1 | 115360    | 116896    | 116627    | 116294    | 0.71   | cps   |
| Beryllium  | 9-1   | 28279     | 27728     | 27464     | 27824     | 1.49   | cps   |
| Bismuth    | 209-1 | 8274435   | 8289773   | 8202488   | 8255565   | 0.56   | cps   |
| Bismuth    | 209-2 | 6767667   | 6632743   | 6646083   | 6682164   | 1.11   | cps   |
| Bromine    | 81-1  | 14080     | 14764     | 15245     | 14696     | 3.98   | cps   |
| Bromine    | 81-2  | 400       | 397       | 423       | 407       | 3.57   | cps   |
| Cadmium    | 108-1 | 6025      | 5741      | 5828      | 5865      | 2.48   | cps   |
| Cadmium    | 106-1 | 8376      | 8096      | 8139      | 8203      | 1.84   | cps   |
| Cadmium    | 111-1 | 62645     | 63470     | 64012     | 63376     | 1.09   | cps   |
| Calcium    | 43-1  | 2964884   | 3056631   | 3045460   | 3022325   | 1.66   | cps   |
| Calcium    | 44-1  | 47762883  | 48438624  | 48958924  | 48386810  | 1.24   | cps   |
| Carbon     | 12-1  |           |           |           |           |        | cps   |
| Carbon     | 12-2  |           |           |           |           |        | cps   |
| Chlorine   | 35-1  |           |           |           |           |        | cps   |
| Chlorine   | 35-2  |           |           |           |           |        | cps   |
| Chromium   | 52-2  | 190622    | 192526    | 194105    | 192418    | 0.91   | cps   |
| Cobalt     | 59-2  | 157392    | 158112    | 157877    | 157794    | 0.23   | cps   |
| Copper     | 63-2  | 141811    | 142619    | 142379    | 142270    | 0.29   | cps   |
| Dysprosium | 156-1 | 87        | 57        | 30        | 58        | 49.07  | cps   |
| Dysprosium | 156-2 | 63        | 57        | 50        | 57        | 11.76  | cps   |
| Erbium     | 164-1 | 153       | 143       | 103       | 133       | 19.85  | cps   |
| Erbium     | 164-2 | 80        | 60        | 83        | 74        | 16.95  | cps   |
| Gadolinium | 160-1 | 80        | 117       | 130       | 109       | 23.78  | cps   |
| Gadolinium | 160-2 | 537       | 573       | 460       | 523       | 11.05  | cps   |
| Holmium    | 165-1 | 13910652  | 13860269  | 14052996  | 13941306  | 0.72   | cps   |
| Holmium    | 165-2 | 9859803   | 9847755   | 9900045   | 9869201   | 0.28   | cps   |
| Indium     | 115-1 | 10533708  | 10726633  | 10534759  | 10598367  | 1.05   | cps   |
| Indium     | 115-2 | 3908392   | 3884497   | 3953205   | 3915365   | 0.89   | cps   |
| Iron       | 56-2  | 452005700 | 448950313 | 450261167 | 450405727 | 0.34   | cps   |
| Iron       | 57-2  | 11251736  | 11216422  | 11325554  | 11264571  | 0.49   | cps   |
| Iron       | 54-2  | 24752676  | 24567063  | 24429233  | 24582991  | 0.66   | cps   |
| Krypton    | 83-1  | 173       | 150       | 220       | 181       | 19.68  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : ICSAB006 Instrumnet Name : P7  
Client Sample ID : ICSAB006 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:20:33 DataFile Name : 023ICSB.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 240332   | 240871   | 240350   | 240518   | 0.13   | cps   |
| Lead       | 207-1 | 199793   | 198621   | 200847   | 199754   | 0.56   | cps   |
| Lead       | 208-1 | 918282   | 926398   | 921829   | 922170   | 0.44   | cps   |
| Lithium    | 6-1   | 1431165  | 1414794  | 1408667  | 1418209  | 0.82   | cps   |
| Magnesium  | 24-2  | 42384957 | 42322583 | 41721537 | 42143025 | 0.87   | cps   |
| Manganese  | 55-2  | 109699   | 109424   | 108719   | 109281   | 0.46   | cps   |
| Molybdenum | 94-1  | 6669578  | 6793118  | 6804659  | 6755785  | 1.11   | cps   |
| Molybdenum | 95-1  | 11731011 | 11650274 | 11896566 | 11759284 | 1.07   | cps   |
| Molybdenum | 96-1  | 13006182 | 12710437 | 12904411 | 12873677 | 1.17   | cps   |
| Molybdenum | 97-1  | 7412677  | 7432978  | 7464571  | 7436742  | 0.35   | cps   |
| Molybdenum | 98-1  | 19444791 | 19293154 | 19359432 | 19365792 | 0.39   | cps   |
| Neodymium  | 150-1 | 83       | 73       | 57       | 71       | 18.94  | cps   |
| Neodymium  | 150-2 | 37       | 27       | 30       | 31       | 16.37  | cps   |
| Nickel     | 60-2  | 47104    | 47619    | 47602    | 47441    | 0.62   | cps   |
| Phosphorus | 31-2  | 1274623  | 1305201  | 1283308  | 1287711  | 1.22   | cps   |
| Potassium  | 39-2  | 53911359 | 53555743 | 54384086 | 53950396 | 0.77   | cps   |
| Rhodium    | 103-1 | 9555077  | 9408401  | 9476738  | 9480072  | 0.77   | cps   |
| Rhodium    | 103-2 | 5830625  | 5888628  | 5893523  | 5870925  | 0.60   | cps   |
| Scandium   | 45-1  | 5579170  | 5555023  | 5563810  | 5566001  | 0.22   | cps   |
| Scandium   | 45-2  | 506430   | 508647   | 513015   | 509364   | 0.66   | cps   |
| Selenium   | 82-1  | 4154     | 4114     | 4218     | 4162     | 1.26   | cps   |
| Selenium   | 77-2  | 430      | 347      | 400      | 392      | 10.76  | cps   |
| Selenium   | 78-2  | 1777     | 1937     | 1757     | 1823     | 5.41   | cps   |
| Silicon    | 28-1  | 674484   | 684409   | 683317   | 680737   | 0.80   | cps   |
| Silver     | 107-1 | 291372   | 292154   | 292547   | 292024   | 0.20   | cps   |
| Silver     | 109-1 | 276479   | 281408   | 279565   | 279151   | 0.89   | cps   |
| Sodium     | 23-2  | 70417397 | 70456179 | 70005937 | 70293171 | 0.35   | cps   |
| Strontium  | 86-1  | 126262   | 128068   | 128676   | 127669   | 0.98   | cps   |
| Strontium  | 88-1  | 1102299  | 1102018  | 1116638  | 1106985  | 0.76   | cps   |
| Sulfur     | 34-1  | 4337394  | 4365397  | 4317811  | 4340201  | 0.55   | cps   |
| Terbium    | 159-1 | 14228948 | 14125430 | 14372479 | 14242285 | 0.87   | cps   |
| Terbium    | 159-2 | 9747985  | 9749750  | 9690284  | 9729340  | 0.35   | cps   |
| Thallium   | 203-1 | 240392   | 242785   | 241244   | 241473   | 0.50   | cps   |
| Thallium   | 205-1 | 572125   | 577970   | 575039   | 575045   | 0.51   | cps   |
| Tin        | 118-1 | 3937     | 3854     | 3574     | 3788     | 5.03   | cps   |
| Titanium   | 47-1  | 2848292  | 2843404  | 2871584  | 2854427  | 0.53   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : ICSAB006 Instrumnet Name : P7  
Client Sample ID : ICSAB006 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:20:33 DataFile Name : 023ICSB.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 3507     | 3124     | 2840     | 3157     | 10.60  | cps   |
| Vanadium  | 51-2  | 85701    | 86033    | 86020    | 85918    | 0.22   | cps   |
| Yttrium   | 89-1  | 12352090 | 12367023 | 12552100 | 12423738 | 0.90   | cps   |
| Yttrium   | 89-2  | 3384099  | 3437391  | 3384458  | 3401983  | 0.90   | cps   |
| Zinc      | 66-2  | 28734    | 28287    | 29155    | 28725    | 1.51   | cps   |
| Zirconium | 90-1  | 4647     | 4427     | 4031     | 4368     | 7.16   | cps   |
| Zirconium | 91-1  | 1047     | 997      | 840      | 961      | 11.22  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : CCV037 Instrumnet Name : P7  
Client Sample ID : CCV037 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:23:36 DataFile Name : 024CCV.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Aluminium  | 27-2  | 14042745  | 14075565  | 14020003  | 14046104  | 0.20   | cps   |
| Antimony   | 121-1 | 6020352   | 6103344   | 6002135   | 6041944   | 0.89   | cps   |
| Arsenic    | 75-2  | 297365    | 294771    | 294415    | 295517    | 0.54   | cps   |
| Barium     | 135-1 | 7771112   | 7655163   | 7679061   | 7701779   | 0.79   | cps   |
| Barium     | 137-1 | 13378042  | 13419885  | 13099106  | 13299011  | 1.31   | cps   |
| Beryllium  | 9-1   | 632907    | 641810    | 643833    | 639517    | 0.91   | cps   |
| Bismuth    | 209-1 | 7935907   | 7944586   | 7900318   | 7926937   | 0.30   | cps   |
| Bismuth    | 209-2 | 6409493   | 6321000   | 6232549   | 6321014   | 1.40   | cps   |
| Bromine    | 81-1  | 13146     | 13463     | 13450     | 13353     | 1.34   | cps   |
| Bromine    | 81-2  | 83        | 130       | 133       | 116       | 24.20  | cps   |
| Cadmium    | 108-1 | 105537    | 106420    | 105020    | 105659    | 0.67   | cps   |
| Cadmium    | 106-1 | 153514    | 153848    | 152521    | 153294    | 0.45   | cps   |
| Cadmium    | 111-1 | 1654970   | 1652589   | 1635320   | 1647626   | 0.65   | cps   |
| Calcium    | 43-1  | 7413636   | 7503707   | 7476853   | 7464732   | 0.62   | cps   |
| Calcium    | 44-1  | 120704302 | 121005365 | 120860282 | 120856649 | 0.12   | cps   |
| Carbon     | 12-1  |           |           |           |           |        | cps   |
| Carbon     | 12-2  |           |           |           |           |        | cps   |
| Chlorine   | 35-1  |           |           |           |           |        | cps   |
| Chlorine   | 35-2  |           |           |           |           |        | cps   |
| Chromium   | 52-2  | 2318305   | 2356948   | 2302080   | 2325778   | 1.21   | cps   |
| Cobalt     | 59-2  | 3622772   | 3579871   | 3646255   | 3616299   | 0.93   | cps   |
| Copper     | 63-2  | 25226590  | 25616607  | 25363071  | 25402089  | 0.78   | cps   |
| Dysprosium | 156-1 | 293       | 327       | 270       | 297       | 9.60   | cps   |
| Dysprosium | 156-2 | 497       | 467       | 470       | 478       | 3.44   | cps   |
| Erbium     | 164-1 | 270       | 283       | 307       | 287       | 6.47   | cps   |
| Erbium     | 164-2 | 143       | 163       | 227       | 178       | 24.47  | cps   |
| Gadolinium | 160-1 | 230       | 297       | 267       | 264       | 12.63  | cps   |
| Gadolinium | 160-2 | 613       | 617       | 730       | 653       | 10.17  | cps   |
| Holmium    | 165-1 | 13806625  | 13690417  | 13658048  | 13718364  | 0.57   | cps   |
| Holmium    | 165-2 | 9657888   | 9614062   | 9580091   | 9617347   | 0.41   | cps   |
| Indium     | 115-1 | 10392271  | 10166567  | 9927995   | 10162278  | 2.28   | cps   |
| Indium     | 115-2 | 3720358   | 3780871   | 3731230   | 3744153   | 0.86   | cps   |
| Iron       | 56-2  | 549332272 | 550531218 | 541570899 | 547144796 | 0.89   | cps   |
| Iron       | 57-2  | 13780972  | 13644638  | 13807837  | 13744482  | 0.64   | cps   |
| Iron       | 54-2  | 29803439  | 30202640  | 30050454  | 30018844  | 0.67   | cps   |
| Krypton    | 83-1  | 210       | 193       | 190       | 198       | 5.42   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : CCV037 Instrumnet Name : P7  
Client Sample ID : CCV037 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:23:36 DataFile Name : 024CCV.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Lead       | 206-1 | 24078625  | 24163705  | 23948340  | 24063557  | 0.45   | cps   |
| Lead       | 207-1 | 20953894  | 21108282  | 20543684  | 20868620  | 1.40   | cps   |
| Lead       | 208-1 | 95465794  | 96118546  | 94198071  | 95260804  | 1.03   | cps   |
| Lithium    | 6-1   | 1358310   | 1341907   | 1366506   | 1355575   | 0.92   | cps   |
| Magnesium  | 24-2  | 107321092 | 107699035 | 107094378 | 107371502 | 0.28   | cps   |
| Manganese  | 55-2  | 18733748  | 18856155  | 18728346  | 18772750  | 0.39   | cps   |
| Molybdenum | 94-1  | 20901315  | 20747984  | 20723743  | 20791014  | 0.46   | cps   |
| Molybdenum | 95-1  | 29620138  | 29637412  | 29681518  | 29646356  | 0.11   | cps   |
| Molybdenum | 96-1  | 32981127  | 32891255  | 32811261  | 32894548  | 0.26   | cps   |
| Molybdenum | 97-1  | 18790804  | 18815603  | 18555801  | 18720736  | 0.77   | cps   |
| Molybdenum | 98-1  | 48300776  | 47888969  | 47915136  | 48034960  | 0.48   | cps   |
| Neodymium  | 150-1 | 507       | 510       | 423       | 480       | 10.23  | cps   |
| Neodymium  | 150-2 | 137       | 147       | 110       | 131       | 14.46  | cps   |
| Nickel     | 60-2  | 855418    | 851678    | 854178    | 853758    | 0.22   | cps   |
| Phosphorus | 31-2  | 126504    | 127885    | 127485    | 127291    | 0.56   | cps   |
| Potassium  | 39-2  | 69296787  | 68685754  | 68537346  | 68839962  | 0.58   | cps   |
| Rhodium    | 103-1 | 9236653   | 9060448   | 9158578   | 9151893   | 0.96   | cps   |
| Rhodium    | 103-2 | 5588784   | 5631664   | 5444178   | 5554876   | 1.77   | cps   |
| Scandium   | 45-1  | 5612172   | 5607716   | 5552991   | 5590960   | 0.59   | cps   |
| Scandium   | 45-2  | 511613    | 512523    | 500166    | 508101    | 1.36   | cps   |
| Selenium   | 82-1  | 85114     | 85590     | 85376     | 85360     | 0.28   | cps   |
| Selenium   | 77-2  | 9423      | 9009      | 9243      | 9225      | 2.25   | cps   |
| Selenium   | 78-2  | 31560     | 31220     | 31123     | 31301     | 0.73   | cps   |
| Silicon    | 28-1  | 3272019   | 3300003   | 3296270   | 3289431   | 0.46   | cps   |
| Silver     | 107-1 | 7422308   | 7363238   | 7437177   | 7407575   | 0.53   | cps   |
| Silver     | 109-1 | 6931035   | 7056902   | 7022658   | 7003532   | 0.93   | cps   |
| Sodium     | 23-2  | 175414077 | 174918471 | 174133451 | 174822000 | 0.37   | cps   |
| Strontium  | 86-1  | 1863686   | 1848260   | 1846510   | 1852819   | 0.51   | cps   |
| Strontium  | 88-1  | 16362855  | 16216259  | 16170798  | 16249971  | 0.62   | cps   |
| Sulfur     | 34-1  | 566099    | 567215    | 564875    | 566063    | 0.21   | cps   |
| Terbium    | 159-1 | 13909569  | 13915240  | 13873912  | 13899574  | 0.16   | cps   |
| Terbium    | 159-2 | 9575932   | 9423144   | 9309299   | 9436125   | 1.42   | cps   |
| Thallium   | 203-1 | 6110842   | 6103867   | 6048977   | 6087895   | 0.56   | cps   |
| Thallium   | 205-1 | 14581830  | 14335420  | 14433636  | 14450295  | 0.86   | cps   |
| Tin        | 118-1 | 5004482   | 4888165   | 4908379   | 4933675   | 1.26   | cps   |
| Titanium   | 47-1  | 7032046   | 6980970   | 6981792   | 6998269   | 0.42   | cps   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

CCV037

Instrumnet Name :

P7

Client Sample ID :

CCV037

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 17:23:36

DataFile Name :

024CCV.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 18359454 | 18565825 | 18332604 | 18419294 | 0.69   | cps   |
| Vanadium  | 51-2  | 2128291  | 2103675  | 2095368  | 2109111  | 0.81   | cps   |
| Yttrium   | 89-1  | 12330637 | 12052085 | 11989534 | 12124085 | 1.50   | cps   |
| Yttrium   | 89-2  | 3368417  | 3338568  | 3310724  | 3339236  | 0.86   | cps   |
| Zinc      | 66-2  | 4253586  | 4274523  | 4311030  | 4279713  | 0.68   | cps   |
| Zirconium | 90-1  | 9988994  | 10099241 | 10046255 | 10044830 | 0.55   | cps   |
| Zirconium | 91-1  | 2221125  | 2254697  | 2206709  | 2227510  | 1.11   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : CCB037 Instrumnet Name : P7  
Client Sample ID : CCB037 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:29:37 DataFile Name : 026CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 173      | 187      | 203      | 188      | 8.00   | cps   |
| Antimony   | 121-1 | 727      | 763      | 680      | 723      | 5.77   | cps   |
| Arsenic    | 75-2  | 7        | 13       | 7        | 9        | 43.25  | cps   |
| Barium     | 135-1 | 83       | 73       | 50       | 69       | 24.83  | cps   |
| Barium     | 137-1 | 163      | 123      | 123      | 137      | 16.90  | cps   |
| Beryllium  | 9-1   | 113      | 73       | 77       | 88       | 25.28  | cps   |
| Bismuth    | 209-1 | 8695087  | 8716419  | 8547572  | 8653026  | 1.06   | cps   |
| Bismuth    | 209-2 | 7122803  | 7167299  | 7091897  | 7127333  | 0.53   | cps   |
| Bromine    | 81-1  | 13927    | 14040    | 14320    | 14096    | 1.44   | cps   |
| Bromine    | 81-2  | 253      | 287      | 247      | 262      | 8.17   | cps   |
| Cadmium    | 108-1 | 17       | 13       | 10       | 13       | 25.01  | cps   |
| Cadmium    | 106-1 | 3087     | 3060     | 3064     | 3070     | 0.47   | cps   |
| Cadmium    | 111-1 | 2201     | 2184     | 2175     | 2187     | 0.60   | cps   |
| Calcium    | 43-1  | 320      | 380      | 367      | 356      | 8.86   | cps   |
| Calcium    | 44-1  | 9713     | 9383     | 9166     | 9421     | 2.92   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 1383     | 1260     | 1420     | 1355     | 6.19   | cps   |
| Cobalt     | 59-2  | 123      | 127      | 137      | 129      | 5.38   | cps   |
| Copper     | 63-2  | 913      | 897      | 933      | 914      | 2.01   | cps   |
| Dysprosium | 156-1 | 0        | 20       | 7        | 9        | 114.55 | cps   |
| Dysprosium | 156-2 | 7        | 7        | 7        | 7        | 0.00   | cps   |
| Erbium     | 164-1 | 63       | 47       | 77       | 62       | 24.16  | cps   |
| Erbium     | 164-2 | 77       | 50       | 33       | 53       | 40.99  | cps   |
| Gadolinium | 160-1 | 43       | 47       | 33       | 41       | 16.89  | cps   |
| Gadolinium | 160-2 | 503      | 523      | 477      | 501      | 4.67   | cps   |
| Holmium    | 165-1 | 14229385 | 14007340 | 13710357 | 13982361 | 1.86   | cps   |
| Holmium    | 165-2 | 9823812  | 9908947  | 9755814  | 9829524  | 0.78   | cps   |
| Indium     | 115-1 | 11102728 | 10924747 | 11092094 | 11039856 | 0.90   | cps   |
| Indium     | 115-2 | 4155260  | 4142275  | 4055341  | 4117626  | 1.32   | cps   |
| Iron       | 56-2  | 19823    | 18995    | 19873    | 19564    | 2.52   | cps   |
| Iron       | 57-2  | 1047     | 977      | 987      | 1003     | 3.77   | cps   |
| Iron       | 54-2  | 2614     | 2554     | 2530     | 2566     | 1.68   | cps   |
| Krypton    | 83-1  | 203      | 170      | 207      | 193      | 10.49  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : CCB037 Instrumnet Name : P7  
Client Sample ID : CCB037 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:29:37 DataFile Name : 026CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 1263     | 1167     | 1280     | 1237     | 4.95   | cps   |
| Lead       | 207-1 | 1097     | 1040     | 1090     | 1076     | 2.88   | cps   |
| Lead       | 208-1 | 4817     | 4740     | 4640     | 4733     | 1.87   | cps   |
| Lithium    | 6-1   | 1467925  | 1459231  | 1453590  | 1460249  | 0.49   | cps   |
| Magnesium  | 24-2  | 933      | 937      | 1010     | 960      | 4.51   | cps   |
| Manganese  | 55-2  | 470      | 420      | 420      | 437      | 6.61   | cps   |
| Molybdenum | 94-1  | 517      | 517      | 580      | 538      | 6.80   | cps   |
| Molybdenum | 95-1  | 570      | 517      | 457      | 514      | 11.02  | cps   |
| Molybdenum | 96-1  | 617      | 617      | 537      | 590      | 7.83   | cps   |
| Molybdenum | 97-1  | 313      | 253      | 257      | 274      | 12.29  | cps   |
| Molybdenum | 98-1  | 853      | 820      | 683      | 786      | 11.47  | cps   |
| Neodymium  | 150-1 | 0        | 0        | 0        | 0        | 0.00   | cps   |
| Neodymium  | 150-2 | 3        | 0        | 0        | 1        | 173.21 | cps   |
| Nickel     | 60-2  | 367      | 300      | 340      | 336      | 10.00  | cps   |
| Phosphorus | 31-2  | 167      | 140      | 133      | 147      | 12.03  | cps   |
| Potassium  | 39-2  | 55818    | 55226    | 56260    | 55768    | 0.93   | cps   |
| Rhodium    | 103-1 | 10454223 | 10151975 | 10280089 | 10295429 | 1.47   | cps   |
| Rhodium    | 103-2 | 6331271  | 6337131  | 6294023  | 6320808  | 0.37   | cps   |
| Scandium   | 45-1  | 5804767  | 5718034  | 5786423  | 5769741  | 0.79   | cps   |
| Scandium   | 45-2  | 527095   | 523992   | 525836   | 525641   | 0.30   | cps   |
| Selenium   | 82-1  | 319      | 328      | 290      | 312      | 6.37   | cps   |
| Selenium   | 77-2  | 0        | 0        | 3        | 1        | 173.21 | cps   |
| Selenium   | 78-2  | 463      | 443      | 423      | 443      | 4.51   | cps   |
| Silicon    | 28-1  | 568359   | 570985   | 569600   | 569648   | 0.23   | cps   |
| Silver     | 107-1 | 323      | 330      | 270      | 308      | 10.69  | cps   |
| Silver     | 109-1 | 317      | 267      | 277      | 287      | 9.23   | cps   |
| Sodium     | 23-2  | 40587    | 40627    | 39701    | 40305    | 1.30   | cps   |
| Strontium  | 86-1  | 333      | 340      | 317      | 330      | 3.64   | cps   |
| Strontium  | 88-1  | 267      | 257      | 197      | 240      | 15.77  | cps   |
| Sulfur     | 34-1  | 173314   | 173597   | 175212   | 174041   | 0.59   | cps   |
| Terbium    | 159-1 | 14428660 | 14104831 | 14201871 | 14245121 | 1.17   | cps   |
| Terbium    | 159-2 | 9680745  | 9665723  | 9722487  | 9689652  | 0.30   | cps   |
| Thallium   | 203-1 | 1100     | 970      | 953      | 1008     | 7.97   | cps   |
| Thallium   | 205-1 | 2437     | 2347     | 2354     | 2379     | 2.11   | cps   |
| Tin        | 118-1 | 1517     | 1403     | 1530     | 1483     | 4.69   | cps   |
| Titanium   | 47-1  | 187      | 163      | 190      | 180      | 8.07   | cps   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

CCB037

Instrumnet Name :

P7

Client Sample ID :

CCB037

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 17:29:37

DataFile Name :

026CCBE.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 150      | 110      | 87       | 116      | 27.72  | cps   |
| Vanadium  | 51-2  | 33       | 20       | 13       | 22       | 45.83  | cps   |
| Yttrium   | 89-1  | 12733052 | 12668056 | 12565044 | 12655384 | 0.67   | cps   |
| Yttrium   | 89-2  | 3477461  | 3535904  | 3469180  | 3494181  | 1.04   | cps   |
| Zinc      | 66-2  | 320      | 377      | 287      | 328      | 13.88  | cps   |
| Zirconium | 90-1  | 803      | 763      | 777      | 781      | 2.61   | cps   |
| Zirconium | 91-1  | 180      | 200      | 200      | 193      | 5.97   | cps   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :PB165675BLInstrumnet Name :P7

Client Sample ID :PBS675Dilution Factor :1

Date & Time Acquired :2024-12-21 17:32:56DataFile Name :027CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 183      | 187      | 243      | 204      | 16.49  | cps   |
| Antimony   | 121-1 | 407      | 393      | 367      | 389      | 5.24   | cps   |
| Arsenic    | 75-2  | 13       | 3        | 7        | 8        | 65.47  | cps   |
| Barium     | 135-1 | 37       | 43       | 47       | 42       | 12.06  | cps   |
| Barium     | 137-1 | 90       | 43       | 73       | 69       | 34.33  | cps   |
| Beryllium  | 9-1   | 83       | 60       | 93       | 79       | 21.68  | cps   |
| Bismuth    | 209-1 | 8795796  | 8661288  | 8682412  | 8713166  | 0.83   | cps   |
| Bismuth    | 209-2 | 7002135  | 6970563  | 7091668  | 7021455  | 0.89   | cps   |
| Bromine    | 81-1  | 13696    | 14053    | 13843    | 13864    | 1.29   | cps   |
| Bromine    | 81-2  | 133      | 167      | 167      | 156      | 12.37  | cps   |
| Cadmium    | 108-1 | 20       | 0        | 3        | 8        | 137.80 | cps   |
| Cadmium    | 106-1 | 3137     | 2947     | 2874     | 2986     | 4.55   | cps   |
| Cadmium    | 111-1 | 2219     | 2097     | 2063     | 2126     | 3.87   | cps   |
| Calcium    | 43-1  | 327      | 310      | 320      | 319      | 2.63   | cps   |
| Calcium    | 44-1  | 9343     | 9126     | 9083     | 9184     | 1.52   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 1313     | 1273     | 1257     | 1281     | 2.27   | cps   |
| Cobalt     | 59-2  | 77       | 137      | 173      | 129      | 37.86  | cps   |
| Copper     | 63-2  | 853      | 750      | 813      | 806      | 6.47   | cps   |
| Dysprosium | 156-1 | 7        | 0        | 3        | 3        | 100.05 | cps   |
| Dysprosium | 156-2 | 0        | 0        | 0        | 0        | 0.00   | cps   |
| Erbium     | 164-1 | 60       | 83       | 43       | 62       | 32.29  | cps   |
| Erbium     | 164-2 | 30       | 43       | 40       | 38       | 18.36  | cps   |
| Gadolinium | 160-1 | 53       | 53       | 53       | 53       | 0.00   | cps   |
| Gadolinium | 160-2 | 567      | 520      | 497      | 528      | 6.75   | cps   |
| Holmium    | 165-1 | 13966469 | 13781805 | 13974990 | 13907755 | 0.78   | cps   |
| Holmium    | 165-2 | 9751430  | 9812374  | 9824994  | 9796266  | 0.40   | cps   |
| Indium     | 115-1 | 11333813 | 11165235 | 11133026 | 11210691 | 0.96   | cps   |
| Indium     | 115-2 | 4119421  | 4140723  | 4146048  | 4135397  | 0.34   | cps   |
| Iron       | 56-2  | 18408    | 18501    | 18765    | 18558    | 1.00   | cps   |
| Iron       | 57-2  | 967      | 963      | 997      | 976      | 1.88   | cps   |
| Iron       | 54-2  | 2560     | 2757     | 2607     | 2641     | 3.89   | cps   |
| Krypton    | 83-1  | 203      | 150      | 227      | 193      | 20.33  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : PB165675BL Instrumnet Name : P7  
Client Sample ID : PBS675 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:32:56 DataFile Name : 027CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 1040     | 950      | 940      | 977      | 5.64   | cps   |
| Lead       | 207-1 | 857      | 820      | 793      | 823      | 3.86   | cps   |
| Lead       | 208-1 | 3937     | 3690     | 3660     | 3762     | 4.04   | cps   |
| Lithium    | 6-1   | 1453943  | 1433801  | 1458111  | 1448619  | 0.90   | cps   |
| Magnesium  | 24-2  | 863      | 887      | 827      | 859      | 3.52   | cps   |
| Manganese  | 55-2  | 393      | 340      | 377      | 370      | 7.37   | cps   |
| Molybdenum | 94-1  | 387      | 357      | 430      | 391      | 9.43   | cps   |
| Molybdenum | 95-1  | 233      | 260      | 203      | 232      | 12.21  | cps   |
| Molybdenum | 96-1  | 347      | 363      | 347      | 352      | 2.73   | cps   |
| Molybdenum | 97-1  | 160      | 157      | 193      | 170      | 11.93  | cps   |
| Molybdenum | 98-1  | 480      | 380      | 437      | 432      | 11.60  | cps   |
| Neodymium  | 150-1 | 23       | 17       | 3        | 14       | 70.51  | cps   |
| Neodymium  | 150-2 | 0        | 3        | 7        | 3        | 100.05 | cps   |
| Nickel     | 60-2  | 350      | 293      | 323      | 322      | 8.80   | cps   |
| Phosphorus | 31-2  | 140      | 120      | 190      | 150      | 24.04  | cps   |
| Potassium  | 39-2  | 56193    | 54705    | 55839    | 55579    | 1.40   | cps   |
| Rhodium    | 103-1 | 10349409 | 10295090 | 10471189 | 10371896 | 0.87   | cps   |
| Rhodium    | 103-2 | 6371256  | 6302322  | 6342851  | 6338810  | 0.55   | cps   |
| Scandium   | 45-1  | 5951591  | 5834392  | 5804543  | 5863509  | 1.33   | cps   |
| Scandium   | 45-2  | 532279   | 528439   | 535891   | 532203   | 0.70   | cps   |
| Selenium   | 82-1  | 352      | 320      | 251      | 308      | 16.79  | cps   |
| Selenium   | 77-2  | 3        | 0        | 0        | 1        | 173.21 | cps   |
| Selenium   | 78-2  | 497      | 403      | 440      | 447      | 10.53  | cps   |
| Silicon    | 28-1  | 586995   | 584823   | 587535   | 586451   | 0.24   | cps   |
| Silver     | 107-1 | 220      | 227      | 230      | 226      | 2.26   | cps   |
| Silver     | 109-1 | 150      | 200      | 170      | 173      | 14.52  | cps   |
| Sodium     | 23-2  | 32885    | 31636    | 31071    | 31864    | 2.91   | cps   |
| Strontium  | 86-1  | 330      | 370      | 327      | 342      | 7.05   | cps   |
| Strontium  | 88-1  | 190      | 180      | 247      | 206      | 17.49  | cps   |
| Sulfur     | 34-1  | 174598   | 176796   | 176857   | 176083   | 0.73   | cps   |
| Terbium    | 159-1 | 14391125 | 14111347 | 14174138 | 14225537 | 1.03   | cps   |
| Terbium    | 159-2 | 9661254  | 9592587  | 9899967  | 9717936  | 1.66   | cps   |
| Thallium   | 203-1 | 917      | 833      | 950      | 900      | 6.68   | cps   |
| Thallium   | 205-1 | 2017     | 2030     | 2080     | 2042     | 1.64   | cps   |
| Tin        | 118-1 | 1413     | 1553     | 1477     | 1481     | 4.73   | cps   |
| Titanium   | 47-1  | 110      | 160      | 90       | 120      | 30.05  | cps   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

PB165675BL

Instrumnet Name :

P7

Client Sample ID :

PBS675

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 17:32:56

DataFile Name :

027CCBE.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 40       | 23       | 10       | 24       | 61.49  | cps   |
| Vanadium  | 51-2  | 10       | 10       | 27       | 16       | 61.87  | cps   |
| Yttrium   | 89-1  | 12862131 | 12541992 | 12608162 | 12670762 | 1.33   | cps   |
| Yttrium   | 89-2  | 3577833  | 3505093  | 3540860  | 3541262  | 1.03   | cps   |
| Zinc      | 66-2  | 300      | 357      | 260      | 306      | 15.89  | cps   |
| Zirconium | 90-1  | 693      | 640      | 720      | 684      | 5.95   | cps   |
| Zirconium | 91-1  | 150      | 163      | 167      | 160      | 5.51   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : PB165675BS Instrumnet Name : P7  
Client Sample ID : LCS675 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:36:12 DataFile Name : 028LCSE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 12782    | 12442    | 12382    | 12535    | 1.72   | cps   |
| Antimony   | 121-1 | 50244    | 50361    | 50906    | 50504    | 0.70   | cps   |
| Arsenic    | 75-2  | 1390     | 1423     | 1490     | 1435     | 3.55   | cps   |
| Barium     | 135-1 | 62091    | 61997    | 62148    | 62079    | 0.12   | cps   |
| Barium     | 137-1 | 107697   | 108681   | 109181   | 108520   | 0.70   | cps   |
| Beryllium  | 9-1   | 2947     | 3014     | 3027     | 2996     | 1.43   | cps   |
| Bismuth    | 209-1 | 8685659  | 8592629  | 8613233  | 8630507  | 0.57   | cps   |
| Bismuth    | 209-2 | 7120680  | 7102303  | 7056954  | 7093312  | 0.46   | cps   |
| Bromine    | 81-1  | 14394    | 14677    | 14587    | 14553    | 1.00   | cps   |
| Bromine    | 81-2  | 163      | 177      | 150      | 163      | 8.16   | cps   |
| Cadmium    | 108-1 | 497      | 447      | 487      | 477      | 5.55   | cps   |
| Cadmium    | 106-1 | 3971     | 3744     | 3747     | 3821     | 3.40   | cps   |
| Cadmium    | 111-1 | 9812     | 9737     | 9917     | 9822     | 0.92   | cps   |
| Calcium    | 43-1  | 34513    | 34062    | 33911    | 34162    | 0.92   | cps   |
| Calcium    | 44-1  | 558679   | 549090   | 560389   | 556053   | 1.10   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 21973    | 21652    | 21752    | 21792    | 0.75   | cps   |
| Cobalt     | 59-2  | 16866    | 16489    | 16810    | 16722    | 1.22   | cps   |
| Copper     | 63-2  | 25518    | 25151    | 25355    | 25341    | 0.73   | cps   |
| Dysprosium | 156-1 | 20       | 17       | 10       | 16       | 32.73  | cps   |
| Dysprosium | 156-2 | 13       | 7        | 3        | 8        | 65.47  | cps   |
| Erbium     | 164-1 | 27       | 60       | 67       | 51       | 41.93  | cps   |
| Erbium     | 164-2 | 47       | 60       | 30       | 46       | 32.99  | cps   |
| Gadolinium | 160-1 | 30       | 33       | 50       | 38       | 28.37  | cps   |
| Gadolinium | 160-2 | 497      | 473      | 470      | 480      | 3.03   | cps   |
| Holmium    | 165-1 | 13907297 | 14074461 | 13920526 | 13967428 | 0.67   | cps   |
| Holmium    | 165-2 | 9894993  | 9903629  | 10028701 | 9942441  | 0.75   | cps   |
| Indium     | 115-1 | 11111808 | 11200755 | 11058388 | 11123650 | 0.65   | cps   |
| Indium     | 115-2 | 4235876  | 4163589  | 4236073  | 4211846  | 0.99   | cps   |
| Iron       | 56-2  | 2008056  | 2014903  | 1999981  | 2007647  | 0.37   | cps   |
| Iron       | 57-2  | 51595    | 51909    | 51812    | 51772    | 0.31   | cps   |
| Iron       | 54-2  | 113420   | 113692   | 113493   | 113535   | 0.12   | cps   |
| Krypton    | 83-1  | 167      | 177      | 193      | 179      | 7.53   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : PB165675BS Instrumnet Name : P7  
Client Sample ID : LCS675 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:36:12 DataFile Name : 028LCSE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 20168    | 20319    | 20816    | 20434    | 1.66   | cps   |
| Lead       | 207-1 | 17548    | 17425    | 17538    | 17504    | 0.39   | cps   |
| Lead       | 208-1 | 79865    | 80771    | 81365    | 80667    | 0.94   | cps   |
| Lithium    | 6-1   | 1423633  | 1436174  | 1418319  | 1426042  | 0.64   | cps   |
| Magnesium  | 24-2  | 461384   | 462137   | 464950   | 462824   | 0.41   | cps   |
| Manganese  | 55-2  | 9116     | 9033     | 9093     | 9081     | 0.47   | cps   |
| Molybdenum | 94-1  | 50898    | 50614    | 51460    | 50991    | 0.84   | cps   |
| Molybdenum | 95-1  | 61903    | 62499    | 62252    | 62218    | 0.48   | cps   |
| Molybdenum | 96-1  | 69283    | 69641    | 69377    | 69434    | 0.27   | cps   |
| Molybdenum | 97-1  | 39025    | 38938    | 39279    | 39081    | 0.45   | cps   |
| Molybdenum | 98-1  | 101097   | 100670   | 101134   | 100967   | 0.26   | cps   |
| Neodymium  | 150-1 | 7        | 3        | 7        | 6        | 34.70  | cps   |
| Neodymium  | 150-2 | 0        | 3        | 3        | 2        | 86.60  | cps   |
| Nickel     | 60-2  | 4537     | 4231     | 4434     | 4401     | 3.55   | cps   |
| Phosphorus | 31-2  | 753      | 800      | 853      | 802      | 6.24   | cps   |
| Potassium  | 39-2  | 675750   | 679880   | 678880   | 678170   | 0.32   | cps   |
| Rhodium    | 103-1 | 10329618 | 10332391 | 10393553 | 10351854 | 0.35   | cps   |
| Rhodium    | 103-2 | 6305919  | 6375256  | 6435278  | 6372151  | 1.02   | cps   |
| Scandium   | 45-1  | 5954647  | 5899390  | 5991742  | 5948593  | 0.78   | cps   |
| Scandium   | 45-2  | 538618   | 542829   | 539302   | 540250   | 0.42   | cps   |
| Selenium   | 82-1  | 2319     | 2411     | 2216     | 2315     | 4.23   | cps   |
| Selenium   | 77-2  | 303      | 230      | 233      | 256      | 16.20  | cps   |
| Selenium   | 78-2  | 1230     | 1133     | 1157     | 1173     | 4.30   | cps   |
| Silicon    | 28-1  | 713934   | 709798   | 716797   | 713509   | 0.49   | cps   |
| Silver     | 107-1 | 31959    | 32216    | 33458    | 32544    | 2.46   | cps   |
| Silver     | 109-1 | 30268    | 30686    | 31087    | 30680    | 1.33   | cps   |
| Sodium     | 23-2  | 770787   | 763991   | 765569   | 766782   | 0.46   | cps   |
| Strontium  | 86-1  | 8226     | 7745     | 8372     | 8115     | 4.04   | cps   |
| Strontium  | 88-1  | 69490    | 69245    | 69275    | 69337    | 0.19   | cps   |
| Sulfur     | 34-1  | 182859   | 182452   | 183335   | 182882   | 0.24   | cps   |
| Terbium    | 159-1 | 14470307 | 14453164 | 14190398 | 14371290 | 1.09   | cps   |
| Terbium    | 159-2 | 9920753  | 9728833  | 9884438  | 9844675  | 1.04   | cps   |
| Thallium   | 203-1 | 25187    | 24415    | 24586    | 24729    | 1.64   | cps   |
| Thallium   | 205-1 | 59114    | 58857    | 58542    | 58838    | 0.49   | cps   |
| Tin        | 118-1 | 106238   | 106490   | 107175   | 106634   | 0.45   | cps   |
| Titanium   | 47-1  | 3864     | 3657     | 3944     | 3822     | 3.87   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : PB165675BS Instrumnet Name : P7  
Client Sample ID : LCS675 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:36:12 DataFile Name : 028LCSE.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 67673    | 68380    | 67786    | 67946    | 0.56   | cps   |
| Vanadium  | 51-2  | 46796    | 46779    | 46408    | 46661    | 0.47   | cps   |
| Yttrium   | 89-1  | 12821213 | 12742605 | 12645184 | 12736334 | 0.69   | cps   |
| Yttrium   | 89-2  | 3546272  | 3541773  | 3547625  | 3545223  | 0.09   | cps   |
| Zinc      | 66-2  | 10437    | 11007    | 10357    | 10601    | 3.35   | cps   |
| Zirconium | 90-1  | 43090    | 42702    | 43244    | 43012    | 0.65   | cps   |
| Zirconium | 91-1  | 9243     | 9460     | 9483     | 9395     | 1.41   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : PB165800BL Instrumnet Name : P7  
Client Sample ID : PBS800 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:39:29 DataFile Name : 029CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 177      | 233      | 160      | 190      | 20.23  | cps   |
| Antimony   | 121-1 | 217      | 230      | 183      | 210      | 11.45  | cps   |
| Arsenic    | 75-2  | 7        | 10       | 13       | 10       | 33.30  | cps   |
| Barium     | 135-1 | 63       | 40       | 37       | 47       | 31.13  | cps   |
| Barium     | 137-1 | 103      | 83       | 100      | 96       | 11.22  | cps   |
| Beryllium  | 9-1   | 57       | 57       | 73       | 62       | 15.46  | cps   |
| Bismuth    | 209-1 | 8750072  | 8676877  | 8573316  | 8666755  | 1.02   | cps   |
| Bismuth    | 209-2 | 7073062  | 7067214  | 7023113  | 7054463  | 0.39   | cps   |
| Bromine    | 81-1  | 14491    | 14951    | 14744    | 14729    | 1.57   | cps   |
| Bromine    | 81-2  | 160      | 147      | 190      | 166      | 13.41  | cps   |
| Cadmium    | 108-1 | 17       | 7        | 10       | 11       | 45.82  | cps   |
| Cadmium    | 106-1 | 2887     | 3187     | 2874     | 2983     | 5.94   | cps   |
| Cadmium    | 111-1 | 2033     | 2260     | 2018     | 2104     | 6.45   | cps   |
| Calcium    | 43-1  | 343      | 387      | 340      | 357      | 7.30   | cps   |
| Calcium    | 44-1  | 9890     | 9690     | 9516     | 9699     | 1.93   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 1360     | 1303     | 1380     | 1348     | 2.95   | cps   |
| Cobalt     | 59-2  | 143      | 127      | 137      | 136      | 6.19   | cps   |
| Copper     | 63-2  | 790      | 767      | 773      | 777      | 1.55   | cps   |
| Dysprosium | 156-1 | 10       | 3        | 3        | 6        | 69.34  | cps   |
| Dysprosium | 156-2 | 3        | 3        | 3        | 3        | 0.00   | cps   |
| Erbium     | 164-1 | 83       | 27       | 60       | 57       | 50.25  | cps   |
| Erbium     | 164-2 | 13       | 40       | 33       | 29       | 48.05  | cps   |
| Gadolinium | 160-1 | 27       | 33       | 50       | 37       | 32.78  | cps   |
| Gadolinium | 160-2 | 463      | 517      | 517      | 499      | 6.17   | cps   |
| Holmium    | 165-1 | 13986428 | 13849650 | 13818654 | 13884911 | 0.64   | cps   |
| Holmium    | 165-2 | 9859917  | 9830007  | 9835593  | 9841839  | 0.16   | cps   |
| Indium     | 115-1 | 11241573 | 11005218 | 11127043 | 11124611 | 1.06   | cps   |
| Indium     | 115-2 | 4167993  | 4168083  | 4137910  | 4157995  | 0.42   | cps   |
| Iron       | 56-2  | 18885    | 19075    | 18552    | 18837    | 1.41   | cps   |
| Iron       | 57-2  | 1063     | 1170     | 1233     | 1156     | 7.44   | cps   |
| Iron       | 54-2  | 2654     | 2644     | 2647     | 2648     | 0.19   | cps   |
| Krypton    | 83-1  | 183      | 200      | 187      | 190      | 4.64   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : PB165800BL Instrumnet Name : P7  
Client Sample ID : PBS800 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:39:29 DataFile Name : 029CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 860      | 797      | 800      | 819      | 4.35   | cps   |
| Lead       | 207-1 | 723      | 650      | 707      | 693      | 5.54   | cps   |
| Lead       | 208-1 | 3250     | 3300     | 3214     | 3255     | 1.34   | cps   |
| Lithium    | 6-1   | 1429473  | 1423601  | 1414794  | 1422623  | 0.52   | cps   |
| Magnesium  | 24-2  | 1067     | 913      | 920      | 967      | 8.97   | cps   |
| Manganese  | 55-2  | 367      | 357      | 410      | 378      | 7.50   | cps   |
| Molybdenum | 94-1  | 413      | 380      | 363      | 386      | 6.60   | cps   |
| Molybdenum | 95-1  | 137      | 223      | 247      | 202      | 28.66  | cps   |
| Molybdenum | 96-1  | 273      | 307      | 263      | 281      | 8.07   | cps   |
| Molybdenum | 97-1  | 203      | 140      | 157      | 167      | 19.70  | cps   |
| Molybdenum | 98-1  | 343      | 377      | 383      | 368      | 5.83   | cps   |
| Neodymium  | 150-1 | 7        | 7        | 3        | 6        | 34.70  | cps   |
| Neodymium  | 150-2 | 3        | 0        | 3        | 2        | 86.60  | cps   |
| Nickel     | 60-2  | 323      | 297      | 310      | 310      | 4.30   | cps   |
| Phosphorus | 31-2  | 167      | 120      | 170      | 152      | 18.37  | cps   |
| Potassium  | 39-2  | 56206    | 56330    | 56417    | 56318    | 0.19   | cps   |
| Rhodium    | 103-1 | 10536668 | 10466557 | 10462592 | 10488606 | 0.40   | cps   |
| Rhodium    | 103-2 | 6429120  | 6374800  | 6298620  | 6367513  | 1.03   | cps   |
| Scandium   | 45-1  | 6035662  | 5835710  | 5854685  | 5908685  | 1.87   | cps   |
| Scandium   | 45-2  | 536059   | 542981   | 537216   | 538752   | 0.69   | cps   |
| Selenium   | 82-1  | 319      | 383      | 334      | 345      | 9.61   | cps   |
| Selenium   | 77-2  | 3        | 0        | 3        | 2        | 86.60  | cps   |
| Selenium   | 78-2  | 530      | 447      | 433      | 470      | 11.15  | cps   |
| Silicon    | 28-1  | 594297   | 599164   | 598336   | 597266   | 0.44   | cps   |
| Silver     | 107-1 | 323      | 290      | 263      | 292      | 10.29  | cps   |
| Silver     | 109-1 | 277      | 210      | 177      | 221      | 23.03  | cps   |
| Sodium     | 23-2  | 26686    | 26500    | 26059    | 26415    | 1.22   | cps   |
| Strontium  | 86-1  | 377      | 373      | 337      | 362      | 6.13   | cps   |
| Strontium  | 88-1  | 410      | 443      | 363      | 406      | 9.91   | cps   |
| Sulfur     | 34-1  | 182208   | 181015   | 181884   | 181702   | 0.34   | cps   |
| Terbium    | 159-1 | 14345496 | 14139119 | 14216555 | 14233723 | 0.73   | cps   |
| Terbium    | 159-2 | 9542884  | 9620452  | 9761956  | 9641764  | 1.15   | cps   |
| Thallium   | 203-1 | 763      | 740      | 717      | 740      | 3.15   | cps   |
| Thallium   | 205-1 | 1773     | 1707     | 1603     | 1695     | 5.06   | cps   |
| Tin        | 118-1 | 1423     | 1527     | 1487     | 1479     | 3.52   | cps   |
| Titanium   | 47-1  | 110      | 117      | 90       | 106      | 13.15  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : PB165800BL Instrumnet Name : P7  
Client Sample ID : PBS800 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:39:29 DataFile Name : 029CCBE.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 33       | 40       | 23       | 32       | 26.04  | cps   |
| Vanadium  | 51-2  | 7        | 13       | 3        | 8        | 65.47  | cps   |
| Yttrium   | 89-1  | 13077937 | 12908787 | 12884334 | 12957020 | 0.81   | cps   |
| Yttrium   | 89-2  | 3556640  | 3534502  | 3475456  | 3522199  | 1.19   | cps   |
| Zinc      | 66-2  | 237      | 300      | 310      | 282      | 14.09  | cps   |
| Zirconium | 90-1  | 753      | 633      | 703      | 697      | 8.65   | cps   |
| Zirconium | 91-1  | 173      | 177      | 133      | 161      | 14.97  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : PB165800BS Instrumnet Name : P7  
Client Sample ID : LCS800 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:42:46 DataFile Name : 030LCSE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 12602    | 12515    | 12642    | 12586    | 0.51   | cps   |
| Antimony   | 121-1 | 49956    | 50876    | 50348    | 50393    | 0.92   | cps   |
| Arsenic    | 75-2  | 1470     | 1520     | 1550     | 1513     | 2.67   | cps   |
| Barium     | 135-1 | 63906    | 61961    | 62613    | 62827    | 1.58   | cps   |
| Barium     | 137-1 | 107428   | 107418   | 109833   | 108227   | 1.29   | cps   |
| Beryllium  | 9-1   | 2960     | 2997     | 2964     | 2974     | 0.68   | cps   |
| Bismuth    | 209-1 | 8591464  | 8480973  | 8539767  | 8537401  | 0.65   | cps   |
| Bismuth    | 209-2 | 7124884  | 6985319  | 7058702  | 7056302  | 0.99   | cps   |
| Bromine    | 81-1  | 14968    | 14367    | 14998    | 14777    | 2.41   | cps   |
| Bromine    | 81-2  | 163      | 207      | 170      | 180      | 12.96  | cps   |
| Cadmium    | 108-1 | 577      | 470      | 497      | 514      | 10.79  | cps   |
| Cadmium    | 106-1 | 4011     | 3824     | 3784     | 3873     | 3.12   | cps   |
| Cadmium    | 111-1 | 10064    | 9619     | 9879     | 9854     | 2.27   | cps   |
| Calcium    | 43-1  | 33607    | 34379    | 33821    | 33936    | 1.17   | cps   |
| Calcium    | 44-1  | 553878   | 561537   | 561131   | 558849   | 0.77   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 21906    | 21469    | 22420    | 21932    | 2.17   | cps   |
| Cobalt     | 59-2  | 17273    | 16696    | 17163    | 17044    | 1.80   | cps   |
| Copper     | 63-2  | 25539    | 25124    | 25665    | 25443    | 1.11   | cps   |
| Dysprosium | 156-1 | 13       | 17       | 33       | 21       | 50.75  | cps   |
| Dysprosium | 156-2 | 13       | 20       | 17       | 17       | 20.01  | cps   |
| Erbium     | 164-1 | 53       | 53       | 47       | 51       | 7.52   | cps   |
| Erbium     | 164-2 | 67       | 13       | 67       | 49       | 62.99  | cps   |
| Gadolinium | 160-1 | 47       | 57       | 47       | 50       | 11.55  | cps   |
| Gadolinium | 160-2 | 537      | 543      | 533      | 538      | 0.95   | cps   |
| Holmium    | 165-1 | 14065119 | 13988410 | 14088339 | 14047289 | 0.37   | cps   |
| Holmium    | 165-2 | 10134520 | 9723236  | 9795465  | 9884407  | 2.22   | cps   |
| Indium     | 115-1 | 11174666 | 11192481 | 11168011 | 11178386 | 0.11   | cps   |
| Indium     | 115-2 | 4247918  | 4183360  | 4180888  | 4204056  | 0.90   | cps   |
| Iron       | 56-2  | 2008814  | 2019764  | 1985738  | 2004772  | 0.87   | cps   |
| Iron       | 57-2  | 51929    | 51431    | 51103    | 51488    | 0.81   | cps   |
| Iron       | 54-2  | 114803   | 114246   | 113557   | 114202   | 0.55   | cps   |
| Krypton    | 83-1  | 187      | 193      | 213      | 198      | 7.02   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : PB165800BS Instrumnet Name : P7  
Client Sample ID : LCS800 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:42:46 DataFile Name : 030LCSE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 20462    | 19821    | 20225    | 20169    | 1.61   | cps   |
| Lead       | 207-1 | 17274    | 17194    | 17845    | 17438    | 2.04   | cps   |
| Lead       | 208-1 | 79180    | 79512    | 79426    | 79373    | 0.22   | cps   |
| Lithium    | 6-1   | 1398638  | 1405376  | 1390585  | 1398200  | 0.53   | cps   |
| Magnesium  | 24-2  | 465168   | 464662   | 461498   | 463776   | 0.43   | cps   |
| Manganese  | 55-2  | 8609     | 9099     | 9316     | 9008     | 4.02   | cps   |
| Molybdenum | 94-1  | 51423    | 51293    | 51396    | 51371    | 0.13   | cps   |
| Molybdenum | 95-1  | 62342    | 62627    | 62844    | 62604    | 0.40   | cps   |
| Molybdenum | 96-1  | 71249    | 69524    | 69025    | 69933    | 1.67   | cps   |
| Molybdenum | 97-1  | 39069    | 39162    | 39858    | 39363    | 1.09   | cps   |
| Molybdenum | 98-1  | 102120   | 102097   | 100586   | 101601   | 0.87   | cps   |
| Neodymium  | 150-1 | 13       | 20       | 17       | 17       | 20.01  | cps   |
| Neodymium  | 150-2 | 3        | 3        | 0        | 2        | 86.60  | cps   |
| Nickel     | 60-2  | 4351     | 4491     | 4357     | 4400     | 1.80   | cps   |
| Phosphorus | 31-2  | 837      | 860      | 850      | 849      | 1.38   | cps   |
| Potassium  | 39-2  | 683653   | 682486   | 681950   | 682697   | 0.13   | cps   |
| Rhodium    | 103-1 | 10621989 | 10504788 | 10433029 | 10519935 | 0.91   | cps   |
| Rhodium    | 103-2 | 6518336  | 6248406  | 6472824  | 6413189  | 2.25   | cps   |
| Scandium   | 45-1  | 5956020  | 5992526  | 6010969  | 5986505  | 0.47   | cps   |
| Scandium   | 45-2  | 547067   | 541150   | 551677   | 546632   | 0.97   | cps   |
| Selenium   | 82-1  | 2326     | 2362     | 2224     | 2304     | 3.12   | cps   |
| Selenium   | 77-2  | 227      | 227      | 190      | 214      | 9.87   | cps   |
| Selenium   | 78-2  | 1197     | 1157     | 1127     | 1160     | 3.03   | cps   |
| Silicon    | 28-1  | 724359   | 734228   | 733319   | 730635   | 0.75   | cps   |
| Silver     | 107-1 | 32052    | 32730    | 32426    | 32403    | 1.05   | cps   |
| Silver     | 109-1 | 30966    | 30956    | 30542    | 30822    | 0.79   | cps   |
| Sodium     | 23-2  | 773165   | 769527   | 769021   | 770571   | 0.29   | cps   |
| Strontium  | 86-1  | 8392     | 8082     | 8062     | 8179     | 2.26   | cps   |
| Strontium  | 88-1  | 67735    | 68559    | 68585    | 68293    | 0.71   | cps   |
| Sulfur     | 34-1  | 186790   | 186935   | 188699   | 187474   | 0.57   | cps   |
| Terbium    | 159-1 | 14349439 | 14254202 | 14082280 | 14228641 | 0.95   | cps   |
| Terbium    | 159-2 | 9774179  | 9697701  | 9510945  | 9660942  | 1.40   | cps   |
| Thallium   | 203-1 | 24402    | 24208    | 24572    | 24394    | 0.75   | cps   |
| Thallium   | 205-1 | 58150    | 58488    | 58636    | 58425    | 0.43   | cps   |
| Tin        | 118-1 | 105607   | 106288   | 106053   | 105983   | 0.33   | cps   |
| Titanium   | 47-1  | 3751     | 3837     | 3767     | 3785     | 1.22   | cps   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

PB165800BS

Instrumnet Name :

P7

Client Sample ID :

LCS800

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 17:42:46

DataFile Name :

030LCSE.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 65983    | 66630    | 66881    | 66498    | 0.70   | cps   |
| Vanadium  | 51-2  | 47842    | 46224    | 47207    | 47091    | 1.73   | cps   |
| Yttrium   | 89-1  | 12940756 | 12795733 | 12902853 | 12879781 | 0.58   | cps   |
| Yttrium   | 89-2  | 3579055  | 3482939  | 3592618  | 3551537  | 1.68   | cps   |
| Zinc      | 66-2  | 10661    | 10587    | 10247    | 10498    | 2.10   | cps   |
| Zirconium | 90-1  | 42682    | 42745    | 42949    | 42792    | 0.33   | cps   |
| Zirconium | 91-1  | 9560     | 9180     | 9436     | 9392     | 2.07   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : PB165755BL Instrumnet Name : P7  
Client Sample ID : PBS755 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:46:03 DataFile Name : 031CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 200      | 177      | 177      | 184      | 7.30   | cps   |
| Antimony   | 121-1 | 157      | 107      | 137      | 133      | 18.87  | cps   |
| Arsenic    | 75-2  | 20       | 27       | 0        | 16       | 89.22  | cps   |
| Barium     | 135-1 | 47       | 57       | 47       | 50       | 11.55  | cps   |
| Barium     | 137-1 | 93       | 87       | 73       | 84       | 12.06  | cps   |
| Beryllium  | 9-1   | 67       | 60       | 57       | 61       | 8.33   | cps   |
| Bismuth    | 209-1 | 8602807  | 8529382  | 8548945  | 8560378  | 0.44   | cps   |
| Bismuth    | 209-2 | 7134416  | 7024404  | 7074727  | 7077849  | 0.78   | cps   |
| Bromine    | 81-1  | 15011    | 15105    | 15448    | 15188    | 1.52   | cps   |
| Bromine    | 81-2  | 177      | 213      | 200      | 197      | 9.44   | cps   |
| Cadmium    | 108-1 | 10       | 0        | 13       | 8        | 89.21  | cps   |
| Cadmium    | 106-1 | 3240     | 3080     | 3014     | 3111     | 3.74   | cps   |
| Cadmium    | 111-1 | 2308     | 2177     | 2140     | 2209     | 4.00   | cps   |
| Calcium    | 43-1  | 310      | 333      | 347      | 330      | 5.62   | cps   |
| Calcium    | 44-1  | 9506     | 8956     | 8836     | 9099     | 3.93   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 1453     | 1393     | 1417     | 1421     | 2.13   | cps   |
| Cobalt     | 59-2  | 130      | 147      | 107      | 128      | 15.72  | cps   |
| Copper     | 63-2  | 803      | 677      | 707      | 729      | 9.08   | cps   |
| Dysprosium | 156-1 | 10       | 10       | 10       | 10       | 0.00   | cps   |
| Dysprosium | 156-2 | 10       | 7        | 7        | 8        | 24.71  | cps   |
| Erbium     | 164-1 | 50       | 63       | 53       | 56       | 12.49  | cps   |
| Erbium     | 164-2 | 40       | 27       | 30       | 32       | 21.53  | cps   |
| Gadolinium | 160-1 | 50       | 20       | 50       | 40       | 43.30  | cps   |
| Gadolinium | 160-2 | 520      | 510      | 483      | 504      | 3.76   | cps   |
| Holmium    | 165-1 | 13982958 | 13798809 | 13787963 | 13856577 | 0.79   | cps   |
| Holmium    | 165-2 | 10006149 | 9780215  | 9961333  | 9915899  | 1.21   | cps   |
| Indium     | 115-1 | 11220089 | 11229646 | 11279498 | 11243078 | 0.28   | cps   |
| Indium     | 115-2 | 4203781  | 4192563  | 4197650  | 4197998  | 0.13   | cps   |
| Iron       | 56-2  | 19079    | 19289    | 18738    | 19035    | 1.46   | cps   |
| Iron       | 57-2  | 987      | 1063     | 1097     | 1049     | 5.38   | cps   |
| Iron       | 54-2  | 2580     | 2844     | 2704     | 2709     | 4.86   | cps   |
| Krypton    | 83-1  | 153      | 240      | 197      | 197      | 22.03  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : PB165755BL Instrumnet Name : P7  
Client Sample ID : PBS755 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:46:03 DataFile Name : 031CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 770      | 747      | 753      | 757      | 1.59   | cps   |
| Lead       | 207-1 | 603      | 623      | 627      | 618      | 2.04   | cps   |
| Lead       | 208-1 | 2990     | 2947     | 2773     | 2903     | 3.95   | cps   |
| Lithium    | 6-1   | 1383360  | 1390206  | 1426066  | 1399877  | 1.64   | cps   |
| Magnesium  | 24-2  | 853      | 877      | 877      | 869      | 1.55   | cps   |
| Manganese  | 55-2  | 393      | 323      | 347      | 354      | 10.06  | cps   |
| Molybdenum | 94-1  | 300      | 377      | 357      | 344      | 11.55  | cps   |
| Molybdenum | 95-1  | 200      | 220      | 170      | 197      | 12.80  | cps   |
| Molybdenum | 96-1  | 290      | 270      | 283      | 281      | 3.62   | cps   |
| Molybdenum | 97-1  | 113      | 133      | 103      | 117      | 13.10  | cps   |
| Molybdenum | 98-1  | 347      | 287      | 357      | 330      | 11.47  | cps   |
| Neodymium  | 150-1 | 10       | 3        | 3        | 6        | 69.34  | cps   |
| Neodymium  | 150-2 | 3        | 0        | 3        | 2        | 86.60  | cps   |
| Nickel     | 60-2  | 323      | 397      | 347      | 356      | 10.54  | cps   |
| Phosphorus | 31-2  | 113      | 133      | 140      | 129      | 10.77  | cps   |
| Potassium  | 39-2  | 56130    | 56360    | 56468    | 56319    | 0.31   | cps   |
| Rhodium    | 103-1 | 10605215 | 10448837 | 10437064 | 10497039 | 0.89   | cps   |
| Rhodium    | 103-2 | 6563006  | 6507581  | 6362852  | 6477813  | 1.60   | cps   |
| Scandium   | 45-1  | 5940703  | 5949812  | 5893377  | 5927964  | 0.51   | cps   |
| Scandium   | 45-2  | 551693   | 547928   | 548125   | 549248   | 0.39   | cps   |
| Selenium   | 82-1  | 405      | 288      | 318      | 337      | 17.92  | cps   |
| Selenium   | 77-2  | 0        | 3        | 0        | 1        | 173.21 | cps   |
| Selenium   | 78-2  | 487      | 517      | 437      | 480      | 8.42   | cps   |
| Silicon    | 28-1  | 612494   | 617691   | 608869   | 613018   | 0.72   | cps   |
| Silver     | 107-1 | 267      | 267      | 277      | 270      | 2.14   | cps   |
| Silver     | 109-1 | 220      | 197      | 193      | 203      | 7.14   | cps   |
| Sodium     | 23-2  | 23698    | 23568    | 23635    | 23634    | 0.28   | cps   |
| Strontium  | 86-1  | 307      | 367      | 357      | 343      | 9.36   | cps   |
| Strontium  | 88-1  | 220      | 243      | 197      | 220      | 10.61  | cps   |
| Sulfur     | 34-1  | 185311   | 186898   | 187562   | 186590   | 0.62   | cps   |
| Terbium    | 159-1 | 14282312 | 14126651 | 14181667 | 14196877 | 0.56   | cps   |
| Terbium    | 159-2 | 9815432  | 9689533  | 9680501  | 9728489  | 0.78   | cps   |
| Thallium   | 203-1 | 683      | 587      | 620      | 630      | 7.79   | cps   |
| Thallium   | 205-1 | 1497     | 1503     | 1497     | 1499     | 0.26   | cps   |
| Tin        | 118-1 | 1357     | 1370     | 1310     | 1346     | 2.34   | cps   |
| Titanium   | 47-1  | 87       | 90       | 100      | 92       | 7.52   | cps   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

PB165755BL

Instrumnet Name :

P7

Client Sample ID :

PBS755

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 17:46:03

DataFile Name :

031CCBE.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 43       | 27       | 20       | 30       | 40.05  | cps   |
| Vanadium  | 51-2  | 17       | 7        | 7        | 10       | 57.72  | cps   |
| Yttrium   | 89-1  | 13045904 | 12929572 | 12975006 | 12983494 | 0.45   | cps   |
| Yttrium   | 89-2  | 3596563  | 3620381  | 3581272  | 3599406  | 0.55   | cps   |
| Zinc      | 66-2  | 293      | 267      | 373      | 311      | 17.84  | cps   |
| Zirconium | 90-1  | 563      | 667      | 690      | 640      | 10.53  | cps   |
| Zirconium | 91-1  | 173      | 163      | 137      | 158      | 12.01  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : PB165755BS Instrumnet Name : P7  
Client Sample ID : LCS755 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:49:20 DataFile Name : 032LCSE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 12382    | 12739    | 12982    | 12701    | 2.38   | cps   |
| Antimony   | 121-1 | 51846    | 52432    | 51575    | 51951    | 0.84   | cps   |
| Arsenic    | 75-2  | 1390     | 1440     | 1523     | 1451     | 4.64   | cps   |
| Barium     | 135-1 | 63608    | 65222    | 64894    | 64575    | 1.32   | cps   |
| Barium     | 137-1 | 112917   | 110357   | 110206   | 111160   | 1.37   | cps   |
| Beryllium  | 9-1   | 3120     | 3017     | 3077     | 3071     | 1.69   | cps   |
| Bismuth    | 209-1 | 8837358  | 8543055  | 8461972  | 8614128  | 2.29   | cps   |
| Bismuth    | 209-2 | 7025132  | 7097599  | 7156477  | 7093069  | 0.93   | cps   |
| Bromine    | 81-1  | 15358    | 15548    | 15221    | 15376    | 1.07   | cps   |
| Bromine    | 81-2  | 200      | 170      | 177      | 182      | 8.64   | cps   |
| Cadmium    | 108-1 | 537      | 467      | 427      | 477      | 11.68  | cps   |
| Cadmium    | 106-1 | 4271     | 3841     | 3817     | 3976     | 6.42   | cps   |
| Cadmium    | 111-1 | 9905     | 10012    | 10037    | 9985     | 0.70   | cps   |
| Calcium    | 43-1  | 34850    | 35605    | 34703    | 35053    | 1.38   | cps   |
| Calcium    | 44-1  | 575163   | 571353   | 571844   | 572787   | 0.36   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 22861    | 22150    | 22303    | 22438    | 1.67   | cps   |
| Cobalt     | 59-2  | 17250    | 17190    | 16629    | 17023    | 2.01   | cps   |
| Copper     | 63-2  | 25826    | 25936    | 25822    | 25861    | 0.25   | cps   |
| Dysprosium | 156-1 | 13       | 0        | 20       | 11       | 91.66  | cps   |
| Dysprosium | 156-2 | 10       | 10       | 13       | 11       | 17.30  | cps   |
| Erbium     | 164-1 | 50       | 50       | 40       | 47       | 12.37  | cps   |
| Erbium     | 164-2 | 47       | 53       | 37       | 46       | 18.41  | cps   |
| Gadolinium | 160-1 | 37       | 43       | 33       | 38       | 13.48  | cps   |
| Gadolinium | 160-2 | 450      | 553      | 587      | 530      | 13.45  | cps   |
| Holmium    | 165-1 | 14124749 | 13817377 | 13925502 | 13955876 | 1.12   | cps   |
| Holmium    | 165-2 | 9971398  | 10075710 | 10052854 | 10033321 | 0.55   | cps   |
| Indium     | 115-1 | 11370722 | 11357505 | 11065062 | 11264430 | 1.53   | cps   |
| Indium     | 115-2 | 4255508  | 4244067  | 4252468  | 4250681  | 0.14   | cps   |
| Iron       | 56-2  | 2065244  | 2067575  | 2050953  | 2061258  | 0.44   | cps   |
| Iron       | 57-2  | 52990    | 53217    | 53291    | 53166    | 0.30   | cps   |
| Iron       | 54-2  | 117071   | 115757   | 116493   | 116440   | 0.57   | cps   |
| Krypton    | 83-1  | 187      | 193      | 187      | 189      | 2.04   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : PB165755BS Instrumnet Name : P7  
Client Sample ID : LCS755 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:49:20 DataFile Name : 032LCSE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 20305    | 20148    | 20632    | 20362    | 1.21   | cps   |
| Lead       | 207-1 | 18269    | 17321    | 17949    | 17846    | 2.70   | cps   |
| Lead       | 208-1 | 80807    | 79963    | 81151    | 80640    | 0.76   | cps   |
| Lithium    | 6-1   | 1396313  | 1388213  | 1403202  | 1395909  | 0.54   | cps   |
| Magnesium  | 24-2  | 474069   | 471355   | 473446   | 472957   | 0.30   | cps   |
| Manganese  | 55-2  | 9616     | 9283     | 9513     | 9471     | 1.80   | cps   |
| Molybdenum | 94-1  | 52290    | 53173    | 52434    | 52632    | 0.90   | cps   |
| Molybdenum | 95-1  | 62760    | 63959    | 63457    | 63392    | 0.95   | cps   |
| Molybdenum | 96-1  | 71313    | 71527    | 70663    | 71168    | 0.63   | cps   |
| Molybdenum | 97-1  | 40570    | 39747    | 40102    | 40140    | 1.03   | cps   |
| Molybdenum | 98-1  | 102694   | 104544   | 103177   | 103472   | 0.93   | cps   |
| Neodymium  | 150-1 | 10       | 7        | 10       | 9        | 21.63  | cps   |
| Neodymium  | 150-2 | 3        | 3        | 3        | 3        | 0.00   | cps   |
| Nickel     | 60-2  | 4487     | 4607     | 4554     | 4550     | 1.32   | cps   |
| Phosphorus | 31-2  | 877      | 890      | 923      | 897      | 2.68   | cps   |
| Potassium  | 39-2  | 701497   | 699964   | 699476   | 700313   | 0.15   | cps   |
| Rhodium    | 103-1 | 10714994 | 10648394 | 10584372 | 10649253 | 0.61   | cps   |
| Rhodium    | 103-2 | 6459578  | 6447226  | 6456279  | 6454361  | 0.10   | cps   |
| Scandium   | 45-1  | 6180020  | 6094773  | 5994614  | 6089802  | 1.52   | cps   |
| Scandium   | 45-2  | 554045   | 552350   | 554778   | 553725   | 0.22   | cps   |
| Selenium   | 82-1  | 2465     | 2390     | 2412     | 2422     | 1.61   | cps   |
| Selenium   | 77-2  | 273      | 213      | 230      | 239      | 12.97  | cps   |
| Selenium   | 78-2  | 1340     | 1297     | 1190     | 1276     | 6.05   | cps   |
| Silicon    | 28-1  | 747929   | 746278   | 747145   | 747117   | 0.11   | cps   |
| Silver     | 107-1 | 33101    | 33696    | 33873    | 33556    | 1.20   | cps   |
| Silver     | 109-1 | 32179    | 31945    | 32486    | 32204    | 0.84   | cps   |
| Sodium     | 23-2  | 785744   | 782797   | 787608   | 785383   | 0.31   | cps   |
| Strontium  | 86-1  | 8436     | 8069     | 8523     | 8342     | 2.89   | cps   |
| Strontium  | 88-1  | 70669    | 70836    | 70618    | 70708    | 0.16   | cps   |
| Sulfur     | 34-1  | 190636   | 191331   | 192242   | 191403   | 0.42   | cps   |
| Terbium    | 159-1 | 14828309 | 14412511 | 14379332 | 14540051 | 1.72   | cps   |
| Terbium    | 159-2 | 9826699  | 9801988  | 9785277  | 9804655  | 0.21   | cps   |
| Thallium   | 203-1 | 24308    | 25197    | 24492    | 24666    | 1.90   | cps   |
| Thallium   | 205-1 | 59683    | 58883    | 59386    | 59317    | 0.68   | cps   |
| Tin        | 118-1 | 107893   | 109284   | 108827   | 108668   | 0.65   | cps   |
| Titanium   | 47-1  | 3781     | 3891     | 3927     | 3866     | 1.97   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : PB165755BS Instrumnet Name : P7  
Client Sample ID : LCS755 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:49:20 DataFile Name : 032LCSE.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 67779    | 69320    | 67907    | 68335    | 1.25   | cps   |
| Vanadium  | 51-2  | 48758    | 47558    | 48514    | 48277    | 1.31   | cps   |
| Yttrium   | 89-1  | 13165104 | 13018093 | 12922497 | 13035231 | 0.94   | cps   |
| Yttrium   | 89-2  | 3635835  | 3671699  | 3590108  | 3632547  | 1.13   | cps   |
| Zinc      | 66-2  | 10644    | 10734    | 10624    | 10667    | 0.55   | cps   |
| Zirconium | 90-1  | 42946    | 43985    | 44250    | 43727    | 1.58   | cps   |
| Zirconium | 91-1  | 9880     | 9760     | 9900     | 9847     | 0.77   | cps   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :P5248-01Instrumnet Name :P7

Client Sample ID :MJNKD0Dilution Factor :1

Date & Time Acquired :2024-12-21 17:53:45DataFile Name :033SMPL.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Aluminium  | 27-2  | 5318265   | 5213311   | 5235113   | 5255563   | 1.05   | cps   |
| Antimony   | 121-1 | 9434467   | 9505692   | 9325226   | 9421795   | 0.96   | cps   |
| Arsenic    | 75-2  | 1139904   | 1127245   | 1133932   | 1133694   | 0.56   | cps   |
| Barium     | 135-1 | 820765    | 829499    | 824530    | 824931    | 0.53   | cps   |
| Barium     | 137-1 | 1416079   | 1434286   | 1439623   | 1429996   | 0.86   | cps   |
| Beryllium  | 9-1   | 1037      | 960       | 1020      | 1006      | 4.01   | cps   |
| Bismuth    | 209-1 | 9168227   | 9177405   | 9167519   | 9171050   | 0.06   | cps   |
| Bismuth    | 209-2 | 7499105   | 7399061   | 7425368   | 7441178   | 0.70   | cps   |
| Bromine    | 81-1  | 63131     | 67376     | 69408     | 66638     | 4.81   | cps   |
| Bromine    | 81-2  | 11011     | 11144     | 11178     | 11111     | 0.79   | cps   |
| Cadmium    | 108-1 | 1357      | 1300      | 1570      | 1409      | 10.11  | cps   |
| Cadmium    | 106-1 | 5378      | 5391      | 5431      | 5400      | 0.51   | cps   |
| Cadmium    | 111-1 | 12856     | 13108     | 12882     | 12949     | 1.07   | cps   |
| Calcium    | 43-1  | 478864    | 487001    | 478370    | 481412    | 1.01   | cps   |
| Calcium    | 44-1  | 7427901   | 7606260   | 7650256   | 7561472   | 1.56   | cps   |
| Carbon     | 12-1  |           |           |           |           |        | cps   |
| Carbon     | 12-2  |           |           |           |           |        | cps   |
| Chlorine   | 35-1  |           |           |           |           |        | cps   |
| Chlorine   | 35-2  |           |           |           |           |        | cps   |
| Chromium   | 52-2  | 238493    | 238046    | 237592    | 238044    | 0.19   | cps   |
| Cobalt     | 59-2  | 1471266   | 1447283   | 1438450   | 1452333   | 1.17   | cps   |
| Copper     | 63-2  | 6512899   | 6430083   | 6465140   | 6469374   | 0.64   | cps   |
| Dysprosium | 156-1 | 33944     | 35044     | 34385     | 34458     | 1.61   | cps   |
| Dysprosium | 156-2 | 28071     | 28222     | 27303     | 27865     | 1.77   | cps   |
| Erbium     | 164-1 | 33437     | 33584     | 34442     | 33821     | 1.61   | cps   |
| Erbium     | 164-2 | 23516     | 22869     | 23730     | 23372     | 1.92   | cps   |
| Gadolinium | 160-1 | 33647     | 34375     | 34512     | 34178     | 1.36   | cps   |
| Gadolinium | 160-2 | 24932     | 25186     | 24916     | 25011     | 0.61   | cps   |
| Holmium    | 165-1 | 14874801  | 15035750  | 14762997  | 14891183  | 0.92   | cps   |
| Holmium    | 165-2 | 10422828  | 10475862  | 10265692  | 10388128  | 1.05   | cps   |
| Indium     | 115-1 | 12984037  | 12917905  | 12822245  | 12908062  | 0.63   | cps   |
| Indium     | 115-2 | 4833325   | 4782671   | 4823303   | 4813100   | 0.56   | cps   |
| Iron       | 56-2  | 519458352 | 514168432 | 517456566 | 517027783 | 0.52   | cps   |
| Iron       | 57-2  | 13104958  | 12628699  | 12619759  | 12784472  | 2.17   | cps   |
| Iron       | 54-2  | 28457835  | 27969103  | 28164359  | 28197099  | 0.87   | cps   |
| Krypton    | 83-1  | 227       | 227       | 273       | 242       | 11.12  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5248-01 Instrumnet Name : P7  
Client Sample ID : MJNKD0 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:53:45 DataFile Name : 033SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 17221748 | 17541099 | 17438618 | 17400488 | 0.94   | cps   |
| Lead       | 207-1 | 14910064 | 15256534 | 15196655 | 15121084 | 1.22   | cps   |
| Lead       | 208-1 | 68564004 | 69398461 | 68961910 | 68974792 | 0.61   | cps   |
| Lithium    | 6-1   | 1418941  | 1421683  | 1386150  | 1408925  | 1.40   | cps   |
| Magnesium  | 24-2  | 5133628  | 5058543  | 5065102  | 5085758  | 0.82   | cps   |
| Manganese  | 55-2  | 3099563  | 3144044  | 3087398  | 3110335  | 0.96   | cps   |
| Molybdenum | 94-1  | 168146   | 171356   | 171169   | 170224   | 1.06   | cps   |
| Molybdenum | 95-1  | 147889   | 151111   | 149858   | 149619   | 1.09   | cps   |
| Molybdenum | 96-1  | 179902   | 182271   | 180570   | 180914   | 0.68   | cps   |
| Molybdenum | 97-1  | 93335    | 94396    | 94338    | 94023    | 0.63   | cps   |
| Molybdenum | 98-1  | 241528   | 243392   | 240783   | 241901   | 0.56   | cps   |
| Neodymium  | 150-1 | 52557    | 52919    | 52166    | 52547    | 0.72   | cps   |
| Neodymium  | 150-2 | 31692    | 31422    | 31953    | 31689    | 0.84   | cps   |
| Nickel     | 60-2  | 102779   | 101853   | 102417   | 102349   | 0.46   | cps   |
| Phosphorus | 31-2  | 21519    | 21892    | 21625    | 21679    | 0.89   | cps   |
| Potassium  | 39-2  | 2780517  | 2796403  | 2805054  | 2793991  | 0.45   | cps   |
| Rhodium    | 103-1 | 10846793 | 10832107 | 11004154 | 10894351 | 0.88   | cps   |
| Rhodium    | 103-2 | 6769791  | 6821356  | 6734736  | 6775294  | 0.64   | cps   |
| Scandium   | 45-1  | 6385605  | 6423022  | 6332843  | 6380490  | 0.71   | cps   |
| Scandium   | 45-2  | 594460   | 592912   | 591001   | 592791   | 0.29   | cps   |
| Selenium   | 82-1  | 889      | 925      | 751      | 855      | 10.73  | cps   |
| Selenium   | 77-2  | 103      | 127      | 127      | 119      | 11.33  | cps   |
| Selenium   | 78-2  | 737      | 623      | 770      | 710      | 10.83  | cps   |
| Silicon    | 28-1  | 26460967 | 26399615 | 26295247 | 26385276 | 0.32   | cps   |
| Silver     | 107-1 | 49715    | 50648    | 50548    | 50304    | 1.02   | cps   |
| Silver     | 109-1 | 48076    | 47765    | 47681    | 47841    | 0.43   | cps   |
| Sodium     | 23-2  | 10482553 | 10331882 | 10459074 | 10424503 | 0.78   | cps   |
| Strontium  | 86-1  | 500453   | 502781   | 502383   | 501873   | 0.25   | cps   |
| Strontium  | 88-1  | 4515142  | 4609149  | 4549447  | 4557913  | 1.04   | cps   |
| Sulfur     | 34-1  | 323573   | 320604   | 314325   | 319501   | 1.48   | cps   |
| Terbium    | 159-1 | 15160043 | 15277718 | 15129286 | 15189015 | 0.52   | cps   |
| Terbium    | 159-2 | 10366969 | 10165342 | 10183743 | 10238685 | 1.09   | cps   |
| Thallium   | 203-1 | 9930     | 9774     | 10334    | 10013    | 2.89   | cps   |
| Thallium   | 205-1 | 23303    | 23841    | 23934    | 23693    | 1.44   | cps   |
| Tin        | 118-1 | 2391171  | 2427996  | 2396119  | 2405095  | 0.83   | cps   |
| Titanium   | 47-1  | 1146029  | 1157233  | 1161938  | 1155067  | 0.71   | cps   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :P5248-01Instrumnet Name :P7

Client Sample ID :MJNKD0Dilution Factor :1

Date & Time Acquired :2024-12-21 17:53:45DataFile Name :033SMPL.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 86571    | 90105    | 87752    | 88143    | 2.04   | cps   |
| Vanadium  | 51-2  | 291696   | 287938   | 287664   | 289099   | 0.78   | cps   |
| Yttrium   | 89-1  | 14207910 | 14166861 | 14105387 | 14160053 | 0.36   | cps   |
| Yttrium   | 89-2  | 3947888  | 3961924  | 3907198  | 3939003  | 0.72   | cps   |
| Zinc      | 66-2  | 7428188  | 7361162  | 7487387  | 7425579  | 0.85   | cps   |
| Zirconium | 90-1  | 226429   | 230400   | 227357   | 228062   | 0.91   | cps   |
| Zirconium | 91-1  | 51661    | 52058    | 52544    | 52088    | 0.85   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5248-02 Instrumnet Name : P7  
Client Sample ID : MJNKD0D Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:56:44 DataFile Name : 034SMPL.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Aluminium  | 27-2  | 5109296   | 5021406   | 5111230   | 5080644   | 1.01   | cps   |
| Antimony   | 121-1 | 9097252   | 9238335   | 9284003   | 9206530   | 1.06   | cps   |
| Arsenic    | 75-2  | 1107054   | 1112092   | 1115208   | 1111452   | 0.37   | cps   |
| Barium     | 135-1 | 807205    | 812125    | 816917    | 812082    | 0.60   | cps   |
| Barium     | 137-1 | 1387188   | 1406361   | 1409133   | 1400894   | 0.85   | cps   |
| Beryllium  | 9-1   | 950       | 943       | 957       | 950       | 0.70   | cps   |
| Bismuth    | 209-1 | 9304317   | 9283838   | 9244774   | 9277643   | 0.33   | cps   |
| Bismuth    | 209-2 | 7449676   | 7411299   | 7375065   | 7412013   | 0.50   | cps   |
| Bromine    | 81-1  | 59814     | 64353     | 66191     | 63453     | 5.17   | cps   |
| Bromine    | 81-2  | 10904     | 10937     | 10284     | 10708     | 3.44   | cps   |
| Cadmium    | 108-1 | 1190      | 1293      | 1300      | 1261      | 4.89   | cps   |
| Cadmium    | 106-1 | 5378      | 5558      | 5561      | 5499      | 1.91   | cps   |
| Cadmium    | 111-1 | 12672     | 12942     | 12467     | 12694     | 1.88   | cps   |
| Calcium    | 43-1  | 451725    | 456690    | 459785    | 456067    | 0.89   | cps   |
| Calcium    | 44-1  | 7123727   | 7179232   | 7084068   | 7129009   | 0.67   | cps   |
| Carbon     | 12-1  |           |           |           |           |        | cps   |
| Carbon     | 12-2  |           |           |           |           |        | cps   |
| Chlorine   | 35-1  |           |           |           |           |        | cps   |
| Chlorine   | 35-2  |           |           |           |           |        | cps   |
| Chromium   | 52-2  | 231090    | 231778    | 232332    | 231733    | 0.27   | cps   |
| Cobalt     | 59-2  | 1369646   | 1379185   | 1385628   | 1378153   | 0.58   | cps   |
| Copper     | 63-2  | 6193953   | 6200940   | 6258300   | 6217731   | 0.57   | cps   |
| Dysprosium | 156-1 | 33921     | 34138     | 35027     | 34362     | 1.71   | cps   |
| Dysprosium | 156-2 | 27968     | 27317     | 27654     | 27646     | 1.18   | cps   |
| Erbium     | 164-1 | 33129     | 33704     | 34389     | 33741     | 1.87   | cps   |
| Erbium     | 164-2 | 23563     | 23680     | 23600     | 23614     | 0.25   | cps   |
| Gadolinium | 160-1 | 33320     | 34225     | 34182     | 33909     | 1.51   | cps   |
| Gadolinium | 160-2 | 25163     | 25366     | 25573     | 25367     | 0.81   | cps   |
| Holmium    | 165-1 | 15079538  | 15043013  | 15056014  | 15059522  | 0.12   | cps   |
| Holmium    | 165-2 | 10618034  | 10539323  | 10307974  | 10488443  | 1.54   | cps   |
| Indium     | 115-1 | 13141347  | 13075102  | 13040902  | 13085783  | 0.39   | cps   |
| Indium     | 115-2 | 4791791   | 4794557   | 4827248   | 4804532   | 0.41   | cps   |
| Iron       | 56-2  | 507474686 | 499629393 | 504246419 | 503783499 | 0.78   | cps   |
| Iron       | 57-2  | 12530485  | 12523078  | 12627871  | 12560478  | 0.47   | cps   |
| Iron       | 54-2  | 27535010  | 28018055  | 27668035  | 27740367  | 0.90   | cps   |
| Krypton    | 83-1  | 303       | 233       | 257       | 264       | 13.48  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5248-02 Instrumnet Name : P7  
Client Sample ID : MJNKD0D Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 17:56:44 DataFile Name : 034SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 16859114 | 16794192 | 16989546 | 16880951 | 0.59   | cps   |
| Lead       | 207-1 | 14579755 | 14750114 | 14780211 | 14703360 | 0.74   | cps   |
| Lead       | 208-1 | 66403296 | 67282651 | 67341843 | 67009263 | 0.78   | cps   |
| Lithium    | 6-1   | 1392616  | 1343407  | 1338779  | 1358267  | 2.20   | cps   |
| Magnesium  | 24-2  | 4988156  | 4991071  | 4956899  | 4978709  | 0.38   | cps   |
| Manganese  | 55-2  | 3085526  | 3065653  | 3094580  | 3081919  | 0.48   | cps   |
| Molybdenum | 94-1  | 160704   | 162190   | 162389   | 161761   | 0.57   | cps   |
| Molybdenum | 95-1  | 143189   | 145977   | 146619   | 145261   | 1.26   | cps   |
| Molybdenum | 96-1  | 174143   | 176340   | 176511   | 175665   | 0.75   | cps   |
| Molybdenum | 97-1  | 90740    | 90575    | 91820    | 91045    | 0.74   | cps   |
| Molybdenum | 98-1  | 231680   | 234361   | 235469   | 233836   | 0.83   | cps   |
| Neodymium  | 150-1 | 52471    | 52440    | 53354    | 52755    | 0.98   | cps   |
| Neodymium  | 150-2 | 31739    | 32210    | 32070    | 32006    | 0.76   | cps   |
| Nickel     | 60-2  | 100346   | 99819    | 99973    | 100046   | 0.27   | cps   |
| Phosphorus | 31-2  | 20878    | 21655    | 21659    | 21397    | 2.10   | cps   |
| Potassium  | 39-2  | 2717365  | 2715434  | 2721414  | 2718071  | 0.11   | cps   |
| Rhodium    | 103-1 | 11094212 | 10979134 | 11001855 | 11025067 | 0.55   | cps   |
| Rhodium    | 103-2 | 6831075  | 6805056  | 6700119  | 6778750  | 1.02   | cps   |
| Scandium   | 45-1  | 6479947  | 6345385  | 6374842  | 6400058  | 1.11   | cps   |
| Scandium   | 45-2  | 596259   | 595237   | 592026   | 594507   | 0.37   | cps   |
| Selenium   | 82-1  | 713      | 790      | 769      | 757      | 5.29   | cps   |
| Selenium   | 77-2  | 177      | 113      | 140      | 143      | 22.19  | cps   |
| Selenium   | 78-2  | 713      | 663      | 747      | 708      | 5.93   | cps   |
| Silicon    | 28-1  | 25238943 | 25030750 | 25612770 | 25294154 | 1.17   | cps   |
| Silver     | 107-1 | 47273    | 47604    | 47661    | 47513    | 0.44   | cps   |
| Silver     | 109-1 | 44565    | 45040    | 45735    | 45113    | 1.30   | cps   |
| Sodium     | 23-2  | 10067145 | 10136412 | 10060881 | 10088146 | 0.42   | cps   |
| Strontium  | 86-1  | 478026   | 487636   | 487306   | 484323   | 1.13   | cps   |
| Strontium  | 88-1  | 4337411  | 4329627  | 4426386  | 4364475  | 1.23   | cps   |
| Sulfur     | 34-1  | 295240   | 296198   | 293510   | 294982   | 0.46   | cps   |
| Terbium    | 159-1 | 15633148 | 15236165 | 15392784 | 15420699 | 1.30   | cps   |
| Terbium    | 159-2 | 10333659 | 10405387 | 10178298 | 10305781 | 1.13   | cps   |
| Thallium   | 203-1 | 8696     | 9243     | 9700     | 9213     | 5.46   | cps   |
| Thallium   | 205-1 | 21300    | 22105    | 23043    | 22149    | 3.94   | cps   |
| Tin        | 118-1 | 2281459  | 2339337  | 2341462  | 2320753  | 1.47   | cps   |
| Titanium   | 47-1  | 1077202  | 1099219  | 1109996  | 1095472  | 1.53   | cps   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

P5248-02

Instrumnet Name :

P7

Client Sample ID :

MJNKD0D

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 17:56:44

DataFile Name :

034SMPL.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 85129    | 85907    | 86260    | 85765    | 0.67   | cps   |
| Vanadium  | 51-2  | 285919   | 284127   | 286261   | 285436   | 0.40   | cps   |
| Yttrium   | 89-1  | 14374060 | 14257354 | 14432601 | 14354672 | 0.62   | cps   |
| Yttrium   | 89-2  | 3960848  | 4001505  | 3891564  | 3951306  | 1.41   | cps   |
| Zinc      | 66-2  | 7273541  | 7278341  | 7240940  | 7264274  | 0.28   | cps   |
| Zirconium | 90-1  | 210984   | 214493   | 215051   | 213509   | 1.03   | cps   |
| Zirconium | 91-1  | 47834    | 49386    | 49062    | 48761    | 1.68   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5248-01LX5 Instrumnet Name : P7  
Client Sample ID : MJNKD0L Dilution Factor : 5  
Date & Time Acquired : 2024-12-21 17:59:45 DataFile Name : 035SMPL.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Aluminium  | 27-2  | 1010503   | 1015925   | 1020961   | 1015796   | 0.51   | cps   |
| Antimony   | 121-1 | 1845050   | 1860200   | 1847259   | 1850836   | 0.44   | cps   |
| Arsenic    | 75-2  | 225687    | 225098    | 223619    | 224802    | 0.47   | cps   |
| Barium     | 135-1 | 163048    | 164515    | 163192    | 163585    | 0.49   | cps   |
| Barium     | 137-1 | 280267    | 281746    | 279630    | 280548    | 0.39   | cps   |
| Beryllium  | 9-1   | 153       | 200       | 250       | 201       | 24.04  | cps   |
| Bismuth    | 209-1 | 8999712   | 8923290   | 8932718   | 8951907   | 0.47   | cps   |
| Bismuth    | 209-2 | 7238934   | 7252836   | 7305782   | 7265851   | 0.49   | cps   |
| Bromine    | 81-1  | 26925     | 25766     | 25976     | 26222     | 2.35   | cps   |
| Bromine    | 81-2  | 2210      | 2560      | 2490      | 2420      | 7.65   | cps   |
| Cadmium    | 108-1 | 297       | 213       | 300       | 270       | 18.19  | cps   |
| Cadmium    | 106-1 | 3724      | 3617      | 3454      | 3598      | 3.78   | cps   |
| Cadmium    | 111-1 | 4303      | 4384      | 4338      | 4342      | 0.94   | cps   |
| Calcium    | 43-1  | 94636     | 94680     | 94240     | 94519     | 0.26   | cps   |
| Calcium    | 44-1  | 1500458   | 1484247   | 1477377   | 1487361   | 0.80   | cps   |
| Carbon     | 12-1  |           |           |           |           |        | cps   |
| Carbon     | 12-2  |           |           |           |           |        | cps   |
| Chlorine   | 35-1  |           |           |           |           |        | cps   |
| Chlorine   | 35-2  |           |           |           |           |        | cps   |
| Chromium   | 52-2  | 47953     | 47515     | 48287     | 47918     | 0.81   | cps   |
| Cobalt     | 59-2  | 283405    | 278843    | 283881    | 282043    | 0.99   | cps   |
| Copper     | 63-2  | 1242407   | 1230890   | 1235069   | 1236122   | 0.47   | cps   |
| Dysprosium | 156-1 | 6675      | 6805      | 6772      | 6751      | 1.00   | cps   |
| Dysprosium | 156-2 | 5691      | 5441      | 5561      | 5565      | 2.25   | cps   |
| Erbium     | 164-1 | 6862      | 6652      | 6488      | 6667      | 2.81   | cps   |
| Erbium     | 164-2 | 4981      | 4768      | 4811      | 4853      | 2.32   | cps   |
| Gadolinium | 160-1 | 6712      | 6792      | 6648      | 6717      | 1.07   | cps   |
| Gadolinium | 160-2 | 5511      | 5201      | 5421      | 5378      | 2.97   | cps   |
| Holmium    | 165-1 | 14437515  | 14711184  | 14557669  | 14568790  | 0.94   | cps   |
| Holmium    | 165-2 | 10136693  | 10195312  | 10223105  | 10185037  | 0.43   | cps   |
| Indium     | 115-1 | 11926966  | 11988206  | 11829988  | 11915053  | 0.67   | cps   |
| Indium     | 115-2 | 4432877   | 4402863   | 4494993   | 4443578   | 1.06   | cps   |
| Iron       | 56-2  | 101712028 | 101251398 | 102136412 | 101699946 | 0.44   | cps   |
| Iron       | 57-2  | 2553494   | 2507523   | 2544662   | 2535226   | 0.96   | cps   |
| Iron       | 54-2  | 5618055   | 5422567   | 5591782   | 5544135   | 1.91   | cps   |
| Krypton    | 83-1  | 220       | 193       | 220       | 211       | 7.29   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5248-01LX5 Instrumnet Name : P7  
Client Sample ID : MJNKD0L Dilution Factor : 5  
Date & Time Acquired : 2024-12-21 17:59:45 DataFile Name : 035SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 3435676  | 3444283  | 3409377  | 3429779  | 0.53   | cps   |
| Lead       | 207-1 | 3028442  | 2997023  | 2979205  | 3001557  | 0.83   | cps   |
| Lead       | 208-1 | 13742577 | 13583819 | 13644188 | 13656861 | 0.59   | cps   |
| Lithium    | 6-1   | 1327357  | 1297369  | 1317447  | 1314058  | 1.16   | cps   |
| Magnesium  | 24-2  | 985527   | 974716   | 984256   | 981500   | 0.60   | cps   |
| Manganese  | 55-2  | 599462   | 596223   | 605792   | 600492   | 0.81   | cps   |
| Molybdenum | 94-1  | 32920    | 33368    | 32847    | 33045    | 0.85   | cps   |
| Molybdenum | 95-1  | 29510    | 29496    | 28989    | 29332    | 1.01   | cps   |
| Molybdenum | 96-1  | 35797    | 35737    | 34972    | 35502    | 1.30   | cps   |
| Molybdenum | 97-1  | 18819    | 18395    | 18432    | 18549    | 1.27   | cps   |
| Molybdenum | 98-1  | 47882    | 47791    | 47266    | 47646    | 0.70   | cps   |
| Neodymium  | 150-1 | 9954     | 10364    | 10337    | 10218    | 2.25   | cps   |
| Neodymium  | 150-2 | 6271     | 6191     | 6672     | 6378     | 4.03   | cps   |
| Nickel     | 60-2  | 21098    | 20838    | 20387    | 20774    | 1.73   | cps   |
| Phosphorus | 31-2  | 4247     | 4274     | 4657     | 4393     | 5.22   | cps   |
| Potassium  | 39-2  | 611685   | 607940   | 613015   | 610880   | 0.43   | cps   |
| Rhodium    | 103-1 | 10934465 | 10671097 | 10859372 | 10821645 | 1.25   | cps   |
| Rhodium    | 103-2 | 6757685  | 6749597  | 6594551  | 6700611  | 1.37   | cps   |
| Scandium   | 45-1  | 6219189  | 6107553  | 6186662  | 6171135  | 0.93   | cps   |
| Scandium   | 45-2  | 569446   | 566481   | 570321   | 568749   | 0.35   | cps   |
| Selenium   | 82-1  | 490      | 459      | 424      | 458      | 7.15   | cps   |
| Selenium   | 77-2  | 10       | 20       | 27       | 19       | 44.42  | cps   |
| Selenium   | 78-2  | 540      | 497      | 493      | 510      | 5.10   | cps   |
| Silicon    | 28-1  | 5736706  | 5751825  | 5775022  | 5754518  | 0.34   | cps   |
| Silver     | 107-1 | 9850     | 10297    | 10284    | 10144    | 2.51   | cps   |
| Silver     | 109-1 | 9467     | 9440     | 9373     | 9426     | 0.51   | cps   |
| Sodium     | 23-2  | 2111182  | 2078508  | 2051024  | 2080238  | 1.45   | cps   |
| Strontium  | 86-1  | 98825    | 99641    | 98027    | 98831    | 0.82   | cps   |
| Strontium  | 88-1  | 866179   | 862311   | 865939   | 864810   | 0.25   | cps   |
| Sulfur     | 34-1  | 182475   | 183895   | 183889   | 183420   | 0.45   | cps   |
| Terbium    | 159-1 | 14803618 | 14887382 | 14782512 | 14824504 | 0.37   | cps   |
| Terbium    | 159-2 | 10040174 | 9952955  | 10075250 | 10022793 | 0.63   | cps   |
| Thallium   | 203-1 | 2500     | 2304     | 2287     | 2364     | 5.02   | cps   |
| Thallium   | 205-1 | 5901     | 5695     | 5638     | 5745     | 2.41   | cps   |
| Tin        | 118-1 | 452276   | 454702   | 451618   | 452866   | 0.36   | cps   |
| Titanium   | 47-1  | 225797   | 225720   | 222505   | 224674   | 0.84   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5248-01LX5 Instrumnet Name : P7  
Client Sample ID : MJNKD0L Dilution Factor : 5  
Date & Time Acquired : 2024-12-21 17:59:45 DataFile Name : 035SMPL.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 16964    | 17058    | 17488    | 17170    | 1.63   | cps   |
| Vanadium  | 51-2  | 57349    | 55970    | 57000    | 56773    | 1.26   | cps   |
| Yttrium   | 89-1  | 13542756 | 13369661 | 13503924 | 13472114 | 0.67   | cps   |
| Yttrium   | 89-2  | 3764719  | 3716171  | 3813087  | 3764659  | 1.29   | cps   |
| Zinc      | 66-2  | 1433491  | 1427834  | 1439979  | 1433768  | 0.42   | cps   |
| Zirconium | 90-1  | 44277    | 43461    | 42993    | 43577    | 1.49   | cps   |
| Zirconium | 91-1  | 10194    | 10040    | 10114    | 10116    | 0.76   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5248-03 Instrumnet Name : P7  
Client Sample ID : MJNKD0S Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:02:51 DataFile Name : 036SMPL.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Aluminium  | 27-2  | 5183419   | 5146964   | 5109528   | 5146637   | 0.72   | cps   |
| Antimony   | 121-1 | 9408965   | 9523161   | 9471956   | 9468027   | 0.60   | cps   |
| Arsenic    | 75-2  | 1112444   | 1095814   | 1102944   | 1103734   | 0.76   | cps   |
| Barium     | 135-1 | 2261355   | 2301504   | 2282015   | 2281625   | 0.88   | cps   |
| Barium     | 137-1 | 3933166   | 3929445   | 3843842   | 3902151   | 1.29   | cps   |
| Beryllium  | 9-1   | 14517     | 14447     | 14237     | 14400     | 1.01   | cps   |
| Bismuth    | 209-1 | 9301216   | 9230476   | 9275534   | 9269075   | 0.39   | cps   |
| Bismuth    | 209-2 | 7359206   | 7345304   | 7393837   | 7366116   | 0.34   | cps   |
| Bromine    | 81-1  | 61320     | 65096     | 67775     | 64730     | 5.01   | cps   |
| Bromine    | 81-2  | 10557     | 10691     | 10397     | 10548     | 1.39   | cps   |
| Cadmium    | 108-1 | 3604      | 3594      | 3640      | 3613      | 0.68   | cps   |
| Cadmium    | 106-1 | 8629      | 8419      | 8513      | 8520      | 1.24   | cps   |
| Cadmium    | 111-1 | 47978     | 47522     | 48231     | 47911     | 0.75   | cps   |
| Calcium    | 43-1  | 456015    | 461658    | 459024    | 458899    | 0.62   | cps   |
| Calcium    | 44-1  | 7067845   | 7200047   | 7088890   | 7118927   | 1.00   | cps   |
| Carbon     | 12-1  |           |           |           |           |        | cps   |
| Carbon     | 12-2  |           |           |           |           |        | cps   |
| Chlorine   | 35-1  |           |           |           |           |        | cps   |
| Chlorine   | 35-2  |           |           |           |           |        | cps   |
| Chromium   | 52-2  | 451773    | 452528    | 456854    | 453718    | 0.60   | cps   |
| Cobalt     | 59-2  | 2326187   | 2269282   | 2304103   | 2299858   | 1.25   | cps   |
| Copper     | 63-2  | 6593886   | 6468538   | 6511767   | 6524731   | 0.98   | cps   |
| Dysprosium | 156-1 | 33420     | 33881     | 33386     | 33562     | 0.82   | cps   |
| Dysprosium | 156-2 | 27070     | 27073     | 27784     | 27309     | 1.51   | cps   |
| Erbium     | 164-1 | 32257     | 33300     | 33791     | 33116     | 2.36   | cps   |
| Erbium     | 164-2 | 23330     | 22605     | 23169     | 23035     | 1.65   | cps   |
| Gadolinium | 160-1 | 32959     | 33567     | 33503     | 33343     | 1.00   | cps   |
| Gadolinium | 160-2 | 24208     | 24602     | 24645     | 24485     | 0.98   | cps   |
| Holmium    | 165-1 | 14843939  | 14747956  | 14898496  | 14830130  | 0.51   | cps   |
| Holmium    | 165-2 | 10346919  | 10344899  | 10603355  | 10431724  | 1.42   | cps   |
| Indium     | 115-1 | 13021289  | 13026583  | 12906977  | 12984950  | 0.52   | cps   |
| Indium     | 115-2 | 4777206   | 4728643   | 4806072   | 4770641   | 0.82   | cps   |
| Iron       | 56-2  | 495412726 | 497758046 | 497565873 | 496912215 | 0.26   | cps   |
| Iron       | 57-2  | 12523676  | 12347167  | 12292792  | 12387878  | 0.97   | cps   |
| Iron       | 54-2  | 27237005  | 26973060  | 27482740  | 27230935  | 0.94   | cps   |
| Krypton    | 83-1  | 223       | 297       | 267       | 262       | 14.06  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5248-03 Instrumnet Name : P7  
Client Sample ID : MJNKD0S Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:02:51 DataFile Name : 036SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 16656742 | 16844931 | 16801419 | 16767698 | 0.59   | cps   |
| Lead       | 207-1 | 14634995 | 14709335 | 14628762 | 14657697 | 0.31   | cps   |
| Lead       | 208-1 | 66930294 | 67466657 | 66727809 | 67041587 | 0.57   | cps   |
| Lithium    | 6-1   | 1364814  | 1319163  | 1322579  | 1335518  | 1.90   | cps   |
| Magnesium  | 24-2  | 4918380  | 4931667  | 4865066  | 4905038  | 0.72   | cps   |
| Manganese  | 55-2  | 3433789  | 3455596  | 3483532  | 3457639  | 0.72   | cps   |
| Molybdenum | 94-1  | 161816   | 165062   | 163991   | 163623   | 1.01   | cps   |
| Molybdenum | 95-1  | 143801   | 143388   | 144333   | 143841   | 0.33   | cps   |
| Molybdenum | 96-1  | 172285   | 175756   | 173955   | 173999   | 1.00   | cps   |
| Molybdenum | 97-1  | 90008    | 90920    | 91112    | 90680    | 0.65   | cps   |
| Molybdenum | 98-1  | 232386   | 232942   | 232552   | 232627   | 0.12   | cps   |
| Neodymium  | 150-1 | 51263    | 52019    | 51657    | 51646    | 0.73   | cps   |
| Neodymium  | 150-2 | 30430    | 30222    | 30045    | 30232    | 0.64   | cps   |
| Nickel     | 60-2  | 321509   | 320157   | 317650   | 319772   | 0.61   | cps   |
| Phosphorus | 31-2  | 20778    | 21272    | 20954    | 21001    | 1.19   | cps   |
| Potassium  | 39-2  | 2698050  | 2663539  | 2695216  | 2685602  | 0.71   | cps   |
| Rhodium    | 103-1 | 11053806 | 11058315 | 10783455 | 10965192 | 1.44   | cps   |
| Rhodium    | 103-2 | 6787406  | 6621816  | 6733718  | 6714314  | 1.26   | cps   |
| Scandium   | 45-1  | 6240644  | 6320524  | 6283065  | 6281411  | 0.64   | cps   |
| Scandium   | 45-2  | 587864   | 586635   | 592188   | 588896   | 0.50   | cps   |
| Selenium   | 82-1  | 5194     | 5094     | 5100     | 5129     | 1.09   | cps   |
| Selenium   | 77-2  | 690      | 580      | 640      | 637      | 8.65   | cps   |
| Selenium   | 78-2  | 2207     | 2304     | 2267     | 2259     | 2.16   | cps   |
| Silicon    | 28-1  | 24966010 | 25784341 | 25398979 | 25383110 | 1.61   | cps   |
| Silver     | 107-1 | 220202   | 222083   | 220637   | 220974   | 0.45   | cps   |
| Silver     | 109-1 | 208400   | 212750   | 210690   | 210613   | 1.03   | cps   |
| Sodium     | 23-2  | 10036498 | 9973226  | 10025863 | 10011862 | 0.34   | cps   |
| Strontium  | 86-1  | 482592   | 489294   | 484211   | 485366   | 0.72   | cps   |
| Strontium  | 88-1  | 4398808  | 4438095  | 4388256  | 4408386  | 0.60   | cps   |
| Sulfur     | 34-1  | 291228   | 292426   | 288993   | 290882   | 0.60   | cps   |
| Terbium    | 159-1 | 15253590 | 15426544 | 15172173 | 15284102 | 0.85   | cps   |
| Terbium    | 159-2 | 10193545 | 10222029 | 10256429 | 10224001 | 0.31   | cps   |
| Thallium   | 203-1 | 133557   | 133914   | 134682   | 134051   | 0.43   | cps   |
| Thallium   | 205-1 | 316628   | 319184   | 324653   | 320155   | 1.28   | cps   |
| Tin        | 118-1 | 2339471  | 2341480  | 2300397  | 2327116  | 1.00   | cps   |
| Titanium   | 47-1  | 1092668  | 1095398  | 1096889  | 1094985  | 0.20   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5248-03 Instrumnet Name : P7  
Client Sample ID : MJNKD0S Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:02:51 DataFile Name : 036SMPL.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 84914    | 85836    | 86528    | 85759    | 0.94   | cps   |
| Vanadium  | 51-2  | 773050   | 756108   | 765943   | 765034   | 1.11   | cps   |
| Yttrium   | 89-1  | 14249121 | 14152760 | 14178909 | 14193597 | 0.35   | cps   |
| Yttrium   | 89-2  | 3863280  | 3895803  | 3972797  | 3910627  | 1.44   | cps   |
| Zinc      | 66-2  | 7303769  | 7203298  | 7208545  | 7238537  | 0.78   | cps   |
| Zirconium | 90-1  | 216922   | 220805   | 217101   | 218276   | 1.00   | cps   |
| Zirconium | 91-1  | 49734    | 49834    | 50393    | 49987    | 0.71   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5249-01 Instrumnet Name : P7  
Client Sample ID : MJNKG0 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:05:49 DataFile Name : 037SMPL.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Aluminium  | 27-2  | 3962443   | 3871461   | 3957650   | 3930518   | 1.30   | cps   |
| Antimony   | 121-1 | 3826198   | 3978557   | 3899135   | 3901296   | 1.95   | cps   |
| Arsenic    | 75-2  | 383477    | 384194    | 385208    | 384293    | 0.23   | cps   |
| Barium     | 135-1 | 359207    | 373434    | 372513    | 368385    | 2.16   | cps   |
| Barium     | 137-1 | 622684    | 638839    | 643511    | 635011    | 1.72   | cps   |
| Beryllium  | 9-1   | 523       | 540       | 580       | 548       | 5.32   | cps   |
| Bismuth    | 209-1 | 10306269  | 9384276   | 9290622   | 9660389   | 5.81   | cps   |
| Bismuth    | 209-2 | 7794739   | 7395398   | 7145467   | 7445201   | 4.40   | cps   |
| Bromine    | 81-1  | 45376     | 48392     | 49824     | 47864     | 4.74   | cps   |
| Bromine    | 81-2  | 7208      | 6952      | 7275      | 7145      | 2.39   | cps   |
| Cadmium    | 108-1 | 637       | 590       | 627       | 618       | 3.98   | cps   |
| Cadmium    | 106-1 | 4394      | 4147      | 4081      | 4207      | 3.92   | cps   |
| Cadmium    | 111-1 | 7669      | 7719      | 8071      | 7819      | 2.80   | cps   |
| Calcium    | 43-1  | 308466    | 321076    | 320159    | 316567    | 2.22   | cps   |
| Calcium    | 44-1  | 4831406   | 4974807   | 4942753   | 4916322   | 1.53   | cps   |
| Carbon     | 12-1  |           |           |           |           |        | cps   |
| Carbon     | 12-2  |           |           |           |           |        | cps   |
| Chlorine   | 35-1  |           |           |           |           |        | cps   |
| Chlorine   | 35-2  |           |           |           |           |        | cps   |
| Chromium   | 52-2  | 193281    | 193883    | 193516    | 193560    | 0.16   | cps   |
| Cobalt     | 59-2  | 517372    | 518929    | 519821    | 518708    | 0.24   | cps   |
| Copper     | 63-2  | 2213859   | 2245369   | 2222936   | 2227388   | 0.73   | cps   |
| Dysprosium | 156-1 | 29224     | 31218     | 30329     | 30257     | 3.30   | cps   |
| Dysprosium | 156-2 | 24288     | 24361     | 24742     | 24464     | 1.00   | cps   |
| Erbium     | 164-1 | 28182     | 29505     | 29388     | 29025     | 2.52   | cps   |
| Erbium     | 164-2 | 19540     | 20231     | 19911     | 19894     | 1.74   | cps   |
| Gadolinium | 160-1 | 29354     | 30269     | 30667     | 30097     | 2.24   | cps   |
| Gadolinium | 160-2 | 22391     | 22425     | 22338     | 22385     | 0.20   | cps   |
| Holmium    | 165-1 | 16924074  | 15369086  | 14941865  | 15745008  | 6.63   | cps   |
| Holmium    | 165-2 | 11003030  | 10491074  | 10297718  | 10597274  | 3.44   | cps   |
| Indium     | 115-1 | 13871863  | 12731737  | 12498363  | 13033988  | 5.64   | cps   |
| Indium     | 115-2 | 4768449   | 4542401   | 4512972   | 4607941   | 3.03   | cps   |
| Iron       | 56-2  | 249866683 | 250182370 | 251315916 | 250454990 | 0.30   | cps   |
| Iron       | 57-2  | 6233240   | 6196975   | 6271928   | 6234048   | 0.60   | cps   |
| Iron       | 54-2  | 13580614  | 13608196  | 13857780  | 13682197  | 1.12   | cps   |
| Krypton    | 83-1  | 213       | 267       | 270       | 250       | 12.72  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5249-01 Instrumnet Name : P7  
Client Sample ID : MJNKG0 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:05:49 DataFile Name : 037SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 6600506  | 6858569  | 6682850  | 6713975  | 1.96   | cps   |
| Lead       | 207-1 | 5756337  | 5874667  | 5794787  | 5808597  | 1.04   | cps   |
| Lead       | 208-1 | 26102703 | 26937296 | 26453088 | 26497696 | 1.58   | cps   |
| Lithium    | 6-1   | 1477118  | 1336604  | 1310110  | 1374611  | 6.53   | cps   |
| Magnesium  | 24-2  | 4208495  | 4183484  | 4195066  | 4195682  | 0.30   | cps   |
| Manganese  | 55-2  | 2197920  | 2164969  | 2237371  | 2200086  | 1.65   | cps   |
| Molybdenum | 94-1  | 59002    | 59999    | 59888    | 59630    | 0.92   | cps   |
| Molybdenum | 95-1  | 56529    | 59125    | 59246    | 58300    | 2.63   | cps   |
| Molybdenum | 96-1  | 68118    | 70978    | 70563    | 69886    | 2.21   | cps   |
| Molybdenum | 97-1  | 36225    | 37254    | 36973    | 36817    | 1.44   | cps   |
| Molybdenum | 98-1  | 91736    | 96087    | 96026    | 94616    | 2.64   | cps   |
| Neodymium  | 150-1 | 44724    | 46955    | 47058    | 46246    | 2.85   | cps   |
| Neodymium  | 150-2 | 27674    | 27494    | 27216    | 27461    | 0.84   | cps   |
| Nickel     | 60-2  | 86038    | 87081    | 87574    | 86897    | 0.90   | cps   |
| Phosphorus | 31-2  | 14877    | 15164    | 14577    | 14873    | 1.97   | cps   |
| Potassium  | 39-2  | 2021135  | 2002455  | 1984950  | 2002847  | 0.90   | cps   |
| Rhodium    | 103-1 | 12355803 | 11380932 | 11200657 | 11645798 | 5.34   | cps   |
| Rhodium    | 103-2 | 7093496  | 6818882  | 6647151  | 6853176  | 3.29   | cps   |
| Scandium   | 45-1  | 6998662  | 6318184  | 6314961  | 6543935  | 6.02   | cps   |
| Scandium   | 45-2  | 626795   | 592133   | 587697   | 602208   | 3.55   | cps   |
| Selenium   | 82-1  | 736      | 616      | 557      | 636      | 14.33  | cps   |
| Selenium   | 77-2  | 87       | 107      | 93       | 96       | 10.66  | cps   |
| Selenium   | 78-2  | 527      | 623      | 630      | 593      | 9.75   | cps   |
| Silicon    | 28-1  | 18207766 | 19127433 | 19210772 | 18848657 | 2.95   | cps   |
| Silver     | 107-1 | 16960    | 17017    | 17040    | 17006    | 0.24   | cps   |
| Silver     | 109-1 | 16343    | 15909    | 15699    | 15983    | 2.05   | cps   |
| Sodium     | 23-2  | 8429063  | 8398917  | 8516572  | 8448184  | 0.72   | cps   |
| Strontium  | 86-1  | 300653   | 313483   | 314812   | 309649   | 2.53   | cps   |
| Strontium  | 88-1  | 2755763  | 2835931  | 2851565  | 2814420  | 1.83   | cps   |
| Sulfur     | 34-1  | 251146   | 256044   | 251609   | 252933   | 1.07   | cps   |
| Terbium    | 159-1 | 17019116 | 15721061 | 15532804 | 16090994 | 5.03   | cps   |
| Terbium    | 159-2 | 10813130 | 10250420 | 10208454 | 10424001 | 3.24   | cps   |
| Thallium   | 203-1 | 5268     | 5735     | 5578     | 5527     | 4.30   | cps   |
| Thallium   | 205-1 | 12950    | 13787    | 13700    | 13479    | 3.42   | cps   |
| Tin        | 118-1 | 708811   | 733637   | 735103   | 725850   | 2.04   | cps   |
| Titanium   | 47-1  | 802643   | 836159   | 835548   | 824784   | 2.33   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5249-01 Instrumnet Name : P7  
Client Sample ID : MJNKG0 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:05:49 DataFile Name : 037SMPL.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 50122    | 52591    | 51550    | 51421    | 2.41   | cps   |
| Vanadium  | 51-2  | 247623   | 246678   | 245602   | 246634   | 0.41   | cps   |
| Yttrium   | 89-1  | 15752182 | 14484848 | 14294457 | 14843829 | 5.34   | cps   |
| Yttrium   | 89-2  | 4093807  | 3910002  | 3860852  | 3954887  | 3.10   | cps   |
| Zinc      | 66-2  | 2856810  | 2905876  | 2931820  | 2898169  | 1.31   | cps   |
| Zirconium | 90-1  | 67488    | 71172    | 73395    | 70685    | 4.22   | cps   |
| Zirconium | 91-1  | 15398    | 16723    | 16326    | 16149    | 4.21   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5249-02 Instrumnet Name : P7  
Client Sample ID : MJNKG0D Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:08:49 DataFile Name : 038SMPL.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Aluminium  | 27-2  | 3341857   | 3331562   | 3373437   | 3348952   | 0.65   | cps   |
| Antimony   | 121-1 | 3473190   | 3491333   | 3543777   | 3502767   | 1.05   | cps   |
| Arsenic    | 75-2  | 340130    | 340151    | 339204    | 339828    | 0.16   | cps   |
| Barium     | 135-1 | 325272    | 325539    | 326043    | 325618    | 0.12   | cps   |
| Barium     | 137-1 | 558860    | 563456    | 568675    | 563663    | 0.87   | cps   |
| Beryllium  | 9-1   | 483       | 640       | 567       | 563       | 13.91  | cps   |
| Bismuth    | 209-1 | 9266044   | 9263109   | 9286793   | 9271982   | 0.14   | cps   |
| Bismuth    | 209-2 | 7309861   | 7184219   | 7309445   | 7267842   | 1.00   | cps   |
| Bromine    | 81-1  | 42711     | 44687     | 45788     | 44395     | 3.51   | cps   |
| Bromine    | 81-2  | 6261      | 6451      | 6408      | 6374      | 1.56   | cps   |
| Cadmium    | 108-1 | 543       | 567       | 517       | 542       | 4.61   | cps   |
| Cadmium    | 106-1 | 4134      | 4047      | 3947      | 4043      | 2.31   | cps   |
| Cadmium    | 111-1 | 7416      | 7404      | 7172      | 7331      | 1.87   | cps   |
| Calcium    | 43-1  | 317210    | 322058    | 323585    | 320951    | 1.04   | cps   |
| Calcium    | 44-1  | 4975334   | 5007645   | 5144751   | 5042577   | 1.78   | cps   |
| Carbon     | 12-1  |           |           |           |           |        | cps   |
| Carbon     | 12-2  |           |           |           |           |        | cps   |
| Chlorine   | 35-1  |           |           |           |           |        | cps   |
| Chlorine   | 35-2  |           |           |           |           |        | cps   |
| Chromium   | 52-2  | 165834    | 163364    | 163216    | 164138    | 0.90   | cps   |
| Cobalt     | 59-2  | 478241    | 481460    | 477588    | 479096    | 0.43   | cps   |
| Copper     | 63-2  | 2061675   | 2063094   | 2053287   | 2059352   | 0.26   | cps   |
| Dysprosium | 156-1 | 27357     | 27804     | 28228     | 27796     | 1.57   | cps   |
| Dysprosium | 156-2 | 21864     | 22455     | 22598     | 22306     | 1.75   | cps   |
| Erbium     | 164-1 | 25650     | 26098     | 26054     | 25934     | 0.95   | cps   |
| Erbium     | 164-2 | 17731     | 17588     | 17181     | 17500     | 1.63   | cps   |
| Gadolinium | 160-1 | 27677     | 27798     | 28068     | 27848     | 0.72   | cps   |
| Gadolinium | 160-2 | 20515     | 20325     | 20812     | 20551     | 1.20   | cps   |
| Holmium    | 165-1 | 15196737  | 14755410  | 15200951  | 15051033  | 1.70   | cps   |
| Holmium    | 165-2 | 10483830  | 10236450  | 10448678  | 10389653  | 1.29   | cps   |
| Indium     | 115-1 | 12436548  | 12200515  | 12460673  | 12365912  | 1.16   | cps   |
| Indium     | 115-2 | 4546284   | 4576205   | 4489973   | 4537487   | 0.96   | cps   |
| Iron       | 56-2  | 222480257 | 223907497 | 219953810 | 222113854 | 0.90   | cps   |
| Iron       | 57-2  | 5594380   | 5495246   | 5485386   | 5525004   | 1.09   | cps   |
| Iron       | 54-2  | 12135014  | 12056424  | 12023762  | 12071733  | 0.47   | cps   |
| Krypton    | 83-1  | 293       | 280       | 320       | 298       | 6.84   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5249-02 Instrumnet Name : P7  
Client Sample ID : MJNKG0D Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:08:49 DataFile Name : 038SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 5941458  | 5980228  | 5927860  | 5949849  | 0.46   | cps   |
| Lead       | 207-1 | 5284443  | 5256424  | 5229958  | 5256941  | 0.52   | cps   |
| Lead       | 208-1 | 23748209 | 23806858 | 23662118 | 23739062 | 0.31   | cps   |
| Lithium    | 6-1   | 1301708  | 1265323  | 1282862  | 1283298  | 1.42   | cps   |
| Magnesium  | 24-2  | 3648520  | 3708926  | 3690513  | 3682653  | 0.84   | cps   |
| Manganese  | 55-2  | 1944687  | 1886058  | 1907469  | 1912738  | 1.55   | cps   |
| Molybdenum | 94-1  | 51129    | 50189    | 50467    | 50595    | 0.95   | cps   |
| Molybdenum | 95-1  | 49878    | 49701    | 50517    | 50032    | 0.86   | cps   |
| Molybdenum | 96-1  | 60725    | 59480    | 60608    | 60271    | 1.14   | cps   |
| Molybdenum | 97-1  | 31771    | 31430    | 31257    | 31486    | 0.83   | cps   |
| Molybdenum | 98-1  | 80892    | 81261    | 81056    | 81070    | 0.23   | cps   |
| Neodymium  | 150-1 | 42046    | 42765    | 42761    | 42524    | 0.97   | cps   |
| Neodymium  | 150-2 | 24949    | 24912    | 24648    | 24836    | 0.66   | cps   |
| Nickel     | 60-2  | 77877    | 77371    | 76936    | 77395    | 0.61   | cps   |
| Phosphorus | 31-2  | 13609    | 13316    | 13710    | 13545    | 1.51   | cps   |
| Potassium  | 39-2  | 1793481  | 1768809  | 1774788  | 1779026  | 0.72   | cps   |
| Rhodium    | 103-1 | 11139443 | 11115897 | 10999960 | 11085100 | 0.67   | cps   |
| Rhodium    | 103-2 | 6897694  | 6717787  | 6759562  | 6791681  | 1.39   | cps   |
| Scandium   | 45-1  | 6273647  | 6389193  | 6326144  | 6329661  | 0.91   | cps   |
| Scandium   | 45-2  | 580465   | 579497   | 582939   | 580967   | 0.31   | cps   |
| Selenium   | 82-1  | 551      | 541      | 484      | 525      | 6.92   | cps   |
| Selenium   | 77-2  | 77       | 130      | 103      | 103      | 25.80  | cps   |
| Selenium   | 78-2  | 650      | 597      | 577      | 608      | 6.24   | cps   |
| Silicon    | 28-1  | 17249674 | 17830070 | 17297270 | 17459005 | 1.85   | cps   |
| Silver     | 107-1 | 15298    | 15375    | 14921    | 15198    | 1.60   | cps   |
| Silver     | 109-1 | 14057    | 14701    | 14040    | 14266    | 2.64   | cps   |
| Sodium     | 23-2  | 7683179  | 7752532  | 7641689  | 7692467  | 0.73   | cps   |
| Strontium  | 86-1  | 290788   | 293626   | 292480   | 292298   | 0.49   | cps   |
| Strontium  | 88-1  | 2652832  | 2666453  | 2637097  | 2652127  | 0.55   | cps   |
| Sulfur     | 34-1  | 242155   | 243930   | 245247   | 243778   | 0.64   | cps   |
| Terbium    | 159-1 | 15444139 | 15425343 | 15516411 | 15461964 | 0.31   | cps   |
| Terbium    | 159-2 | 10279919 | 10116033 | 10310864 | 10235605 | 1.02   | cps   |
| Thallium   | 203-1 | 4861     | 4968     | 5104     | 4978     | 2.45   | cps   |
| Thallium   | 205-1 | 11145    | 11762    | 11735    | 11547    | 3.02   | cps   |
| Tin        | 118-1 | 650347   | 652214   | 649461   | 650674   | 0.22   | cps   |
| Titanium   | 47-1  | 695569   | 711361   | 710534   | 705821   | 1.26   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5249-02 Instrumnet Name : P7  
Client Sample ID : MJNKG0D Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:08:49 DataFile Name : 038SMPL.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 45174    | 46389    | 45582    | 45715    | 1.35   | cps   |
| Vanadium  | 51-2  | 212241   | 214150   | 211487   | 212626   | 0.65   | cps   |
| Yttrium   | 89-1  | 14424922 | 14194412 | 14524430 | 14381255 | 1.18   | cps   |
| Yttrium   | 89-2  | 3918153  | 3900351  | 3915789  | 3911431  | 0.25   | cps   |
| Zinc      | 66-2  | 2646474  | 2666448  | 2600522  | 2637815  | 1.28   | cps   |
| Zirconium | 90-1  | 59684    | 59272    | 59999    | 59652    | 0.61   | cps   |
| Zirconium | 91-1  | 13860    | 13139    | 13523    | 13507    | 2.67   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5249-01LX5 Instrumnet Name : P7  
Client Sample ID : MJNKG0L Dilution Factor : 5  
Date & Time Acquired : 2024-12-21 18:11:51 DataFile Name : 039SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 809084   | 804133   | 806919   | 806712   | 0.31   | cps   |
| Antimony   | 121-1 | 777401   | 771169   | 773402   | 773991   | 0.41   | cps   |
| Arsenic    | 75-2  | 80349    | 79903    | 80584    | 80279    | 0.43   | cps   |
| Barium     | 135-1 | 77442    | 76504    | 76276    | 76741    | 0.81   | cps   |
| Barium     | 137-1 | 132046   | 131155   | 132824   | 132008   | 0.63   | cps   |
| Beryllium  | 9-1   | 147      | 160      | 147      | 151      | 5.09   | cps   |
| Bismuth    | 209-1 | 8936943  | 8998027  | 8908410  | 8947793  | 0.51   | cps   |
| Bismuth    | 209-2 | 7206696  | 7164718  | 7014102  | 7128505  | 1.42   | cps   |
| Bromine    | 81-1  | 22317    | 22407    | 22674    | 22466    | 0.83   | cps   |
| Bromine    | 81-2  | 1627     | 1617     | 1693     | 1646     | 2.53   | cps   |
| Cadmium    | 108-1 | 147      | 103      | 133      | 128      | 17.37  | cps   |
| Cadmium    | 106-1 | 3257     | 3310     | 3177     | 3248     | 2.07   | cps   |
| Cadmium    | 111-1 | 3362     | 3391     | 3294     | 3349     | 1.49   | cps   |
| Calcium    | 43-1  | 65872    | 66227    | 66167    | 66089    | 0.29   | cps   |
| Calcium    | 44-1  | 1077564  | 1074949  | 1072590  | 1075034  | 0.23   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 41875    | 42303    | 41761    | 41979    | 0.68   | cps   |
| Cobalt     | 59-2  | 109348   | 108425   | 108905   | 108893   | 0.42   | cps   |
| Copper     | 63-2  | 453831   | 453972   | 454719   | 454174   | 0.11   | cps   |
| Dysprosium | 156-1 | 6435     | 6482     | 6151     | 6356     | 2.81   | cps   |
| Dysprosium | 156-2 | 5144     | 5081     | 5071     | 5099     | 0.78   | cps   |
| Erbium     | 164-1 | 5988     | 5995     | 6081     | 6021     | 0.87   | cps   |
| Erbium     | 164-2 | 4224     | 4001     | 4304     | 4176     | 3.77   | cps   |
| Gadolinium | 160-1 | 6315     | 5925     | 6238     | 6159     | 3.36   | cps   |
| Gadolinium | 160-2 | 5011     | 5198     | 4854     | 5021     | 3.42   | cps   |
| Holmium    | 165-1 | 14716407 | 14428651 | 14252261 | 14465773 | 1.62   | cps   |
| Holmium    | 165-2 | 10219808 | 10228405 | 10086996 | 10178403 | 0.78   | cps   |
| Indium     | 115-1 | 11927826 | 11646449 | 11780100 | 11784792 | 1.19   | cps   |
| Indium     | 115-2 | 4373166  | 4340040  | 4330617  | 4347941  | 0.51   | cps   |
| Iron       | 56-2  | 52993861 | 52825876 | 52315299 | 52711679 | 0.67   | cps   |
| Iron       | 57-2  | 1319627  | 1314327  | 1327999  | 1320651  | 0.52   | cps   |
| Iron       | 54-2  | 2874466  | 2884035  | 2879532  | 2879344  | 0.17   | cps   |
| Krypton    | 83-1  | 253      | 173      | 267      | 231      | 21.84  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5249-01LX5 Instrumnet Name : P7  
Client Sample ID : MJNKG0L Dilution Factor : 5  
Date & Time Acquired : 2024-12-21 18:11:51 DataFile Name : 039SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 1288222  | 1277857  | 1275716  | 1280598  | 0.52   | cps   |
| Lead       | 207-1 | 1103247  | 1105873  | 1097600  | 1102240  | 0.38   | cps   |
| Lead       | 208-1 | 5357728  | 5330019  | 5322325  | 5336691  | 0.35   | cps   |
| Lithium    | 6-1   | 1274709  | 1241367  | 1228347  | 1248141  | 1.92   | cps   |
| Magnesium  | 24-2  | 850056   | 845241   | 853717   | 849672   | 0.50   | cps   |
| Manganese  | 55-2  | 454000   | 450263   | 452935   | 452400   | 0.43   | cps   |
| Molybdenum | 94-1  | 12485    | 12742    | 12449    | 12559    | 1.27   | cps   |
| Molybdenum | 95-1  | 12495    | 12138    | 11978    | 12204    | 2.17   | cps   |
| Molybdenum | 96-1  | 14871    | 14878    | 14524    | 14758    | 1.37   | cps   |
| Molybdenum | 97-1  | 7665     | 8082     | 7829     | 7859     | 2.67   | cps   |
| Molybdenum | 98-1  | 19770    | 19506    | 19857    | 19711    | 0.93   | cps   |
| Neodymium  | 150-1 | 9780     | 9663     | 9954     | 9799     | 1.49   | cps   |
| Neodymium  | 150-2 | 5868     | 5908     | 5521     | 5766     | 3.69   | cps   |
| Nickel     | 60-2  | 18461    | 18502    | 18885    | 18616    | 1.26   | cps   |
| Phosphorus | 31-2  | 3344     | 3524     | 3227     | 3365     | 4.44   | cps   |
| Potassium  | 39-2  | 473483   | 471096   | 472121   | 472233   | 0.25   | cps   |
| Rhodium    | 103-1 | 10930886 | 10939272 | 11029647 | 10966602 | 0.50   | cps   |
| Rhodium    | 103-2 | 6707822  | 6726648  | 6706278  | 6713582  | 0.17   | cps   |
| Scandium   | 45-1  | 6115864  | 6077493  | 6006386  | 6066581  | 0.92   | cps   |
| Scandium   | 45-2  | 572239   | 569833   | 568404   | 570159   | 0.34   | cps   |
| Selenium   | 82-1  | 422      | 459      | 333      | 405      | 15.93  | cps   |
| Selenium   | 77-2  | 17       | 30       | 33       | 27       | 33.06  | cps   |
| Selenium   | 78-2  | 527      | 447      | 500      | 491      | 8.29   | cps   |
| Silicon    | 28-1  | 4581875  | 4502150  | 4511975  | 4532000  | 0.96   | cps   |
| Silver     | 107-1 | 3510     | 3424     | 3787     | 3574     | 5.31   | cps   |
| Silver     | 109-1 | 3487     | 3277     | 3420     | 3395     | 3.16   | cps   |
| Sodium     | 23-2  | 1859436  | 1815798  | 1798093  | 1824443  | 1.73   | cps   |
| Strontium  | 86-1  | 66379    | 65528    | 64688    | 65531    | 1.29   | cps   |
| Strontium  | 88-1  | 564619   | 562856   | 568117   | 565197   | 0.47   | cps   |
| Sulfur     | 34-1  | 167368   | 170860   | 168993   | 169074   | 1.03   | cps   |
| Terbium    | 159-1 | 15154635 | 14953909 | 14803336 | 14970626 | 1.18   | cps   |
| Terbium    | 159-2 | 10076245 | 10008873 | 9921203  | 10002107 | 0.78   | cps   |
| Thallium   | 203-1 | 1470     | 1420     | 1327     | 1406     | 5.18   | cps   |
| Thallium   | 205-1 | 3437     | 3464     | 3227     | 3376     | 3.84   | cps   |
| Tin        | 118-1 | 154444   | 150954   | 152895   | 152764   | 1.14   | cps   |
| Titanium   | 47-1  | 172711   | 172525   | 173835   | 173024   | 0.41   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5249-01LX5 Instrumnet Name : P7  
Client Sample ID : MJNKG0L Dilution Factor : 5  
Date & Time Acquired : 2024-12-21 18:11:51 DataFile Name : 039SMPL.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 10361    | 10514    | 10524    | 10466    | 0.88   | cps   |
| Vanadium  | 51-2  | 51360    | 50163    | 52364    | 51296    | 2.15   | cps   |
| Yttrium   | 89-1  | 13506142 | 13441765 | 13454432 | 13467446 | 0.25   | cps   |
| Yttrium   | 89-2  | 3717052  | 3718258  | 3659310  | 3698206  | 0.91   | cps   |
| Zinc      | 66-2  | 585017   | 582101   | 587906   | 585008   | 0.50   | cps   |
| Zirconium | 90-1  | 14334    | 14591    | 15145    | 14690    | 2.82   | cps   |
| Zirconium | 91-1  | 3410     | 3387     | 3277     | 3358     | 2.12   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5249-03 Instrumnet Name : P7  
Client Sample ID : MJNKG0S Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:15:03 DataFile Name : 040SMPL.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Aluminium  | 27-2  | 3671862   | 3708372   | 3647840   | 3676025   | 0.83   | cps   |
| Antimony   | 121-1 | 3891939   | 3960869   | 3907897   | 3920235   | 0.92   | cps   |
| Arsenic    | 75-2  | 361027    | 360491    | 358822    | 360113    | 0.32   | cps   |
| Barium     | 135-1 | 1755748   | 1787885   | 1760401   | 1768012   | 0.98   | cps   |
| Barium     | 137-1 | 3053096   | 3078762   | 3038854   | 3056904   | 0.66   | cps   |
| Beryllium  | 9-1   | 13696     | 13739     | 13466     | 13634     | 1.08   | cps   |
| Bismuth    | 209-1 | 9212619   | 9231329   | 9401862   | 9281937   | 1.12   | cps   |
| Bismuth    | 209-2 | 7303597   | 7316313   | 7341412   | 7320440   | 0.26   | cps   |
| Bromine    | 81-1  | 43608     | 45536     | 46289     | 45144     | 3.06   | cps   |
| Bromine    | 81-2  | 6255      | 6541      | 6328      | 6375      | 2.34   | cps   |
| Cadmium    | 108-1 | 2687      | 2910      | 2777      | 2791      | 4.03   | cps   |
| Cadmium    | 106-1 | 7442      | 7112      | 7162      | 7239      | 2.46   | cps   |
| Cadmium    | 111-1 | 42462     | 42383     | 42171     | 42339     | 0.36   | cps   |
| Calcium    | 43-1  | 298770    | 297054    | 299382    | 298402    | 0.40   | cps   |
| Calcium    | 44-1  | 4669567   | 4703972   | 4665987   | 4679842   | 0.45   | cps   |
| Carbon     | 12-1  |           |           |           |           |        | cps   |
| Carbon     | 12-2  |           |           |           |           |        | cps   |
| Chlorine   | 35-1  |           |           |           |           |        | cps   |
| Chlorine   | 35-2  |           |           |           |           |        | cps   |
| Chromium   | 52-2  | 398102    | 401784    | 395839    | 398575    | 0.75   | cps   |
| Cobalt     | 59-2  | 1345288   | 1338692   | 1339748   | 1341243   | 0.26   | cps   |
| Copper     | 63-2  | 2461454   | 2408380   | 2353372   | 2407735   | 2.24   | cps   |
| Dysprosium | 156-1 | 28365     | 28145     | 27687     | 28066     | 1.23   | cps   |
| Dysprosium | 156-2 | 23259     | 22945     | 22879     | 23028     | 0.88   | cps   |
| Erbium     | 164-1 | 25987     | 26809     | 27066     | 26621     | 2.12   | cps   |
| Erbium     | 164-2 | 18709     | 18439     | 18025     | 18391     | 1.87   | cps   |
| Gadolinium | 160-1 | 27811     | 28679     | 28733     | 28408     | 1.82   | cps   |
| Gadolinium | 160-2 | 21089     | 20846     | 20622     | 20852     | 1.12   | cps   |
| Holmium    | 165-1 | 15212254  | 14792221  | 14830728  | 14945068  | 1.55   | cps   |
| Holmium    | 165-2 | 10466749  | 10511262  | 10258563  | 10412191  | 1.30   | cps   |
| Indium     | 115-1 | 12538507  | 12282309  | 12090854  | 12303890  | 1.83   | cps   |
| Indium     | 115-2 | 4574557   | 4482946   | 4560237   | 4539247   | 1.09   | cps   |
| Iron       | 56-2  | 230789763 | 233524110 | 227381677 | 230565183 | 1.33   | cps   |
| Iron       | 57-2  | 5774401   | 5761628   | 5735376   | 5757135   | 0.35   | cps   |
| Iron       | 54-2  | 12703554  | 12782084  | 12573803  | 12686480  | 0.83   | cps   |
| Krypton    | 83-1  | 233       | 247       | 243       | 241       | 2.88   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5249-03 Instrumnet Name : P7  
Client Sample ID : MJNKG0S Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:15:03 DataFile Name : 040SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 6105708  | 6140301  | 6214665  | 6153558  | 0.90   | cps   |
| Lead       | 207-1 | 5365477  | 5408733  | 5355697  | 5376636  | 0.52   | cps   |
| Lead       | 208-1 | 24296195 | 24581200 | 24587823 | 24488406 | 0.68   | cps   |
| Lithium    | 6-1   | 1304933  | 1269587  | 1238978  | 1271166  | 2.60   | cps   |
| Magnesium  | 24-2  | 3825666  | 3859734  | 3753548  | 3812982  | 1.42   | cps   |
| Manganese  | 55-2  | 2498545  | 2463923  | 2413096  | 2458521  | 1.75   | cps   |
| Molybdenum | 94-1  | 53688    | 54391    | 55039    | 54373    | 1.24   | cps   |
| Molybdenum | 95-1  | 52811    | 54049    | 53842    | 53568    | 1.24   | cps   |
| Molybdenum | 96-1  | 63805    | 64883    | 63852    | 64180    | 0.95   | cps   |
| Molybdenum | 97-1  | 33341    | 33786    | 33862    | 33663    | 0.84   | cps   |
| Molybdenum | 98-1  | 85317    | 86819    | 86296    | 86144    | 0.89   | cps   |
| Neodymium  | 150-1 | 42845    | 43102    | 42818    | 42922    | 0.37   | cps   |
| Neodymium  | 150-2 | 25473    | 25006    | 25500    | 25326    | 1.10   | cps   |
| Nickel     | 60-2  | 300141   | 297704   | 297207   | 298351   | 0.53   | cps   |
| Phosphorus | 31-2  | 13883    | 14110    | 13423    | 13805    | 2.54   | cps   |
| Potassium  | 39-2  | 1831528  | 1858010  | 1842894  | 1844144  | 0.72   | cps   |
| Rhodium    | 103-1 | 11116407 | 11026980 | 11044192 | 11062526 | 0.43   | cps   |
| Rhodium    | 103-2 | 6824005  | 6784897  | 6689715  | 6766206  | 1.02   | cps   |
| Scandium   | 45-1  | 6433323  | 6365943  | 6289819  | 6363029  | 1.13   | cps   |
| Scandium   | 45-2  | 588032   | 583569   | 577688   | 583096   | 0.89   | cps   |
| Selenium   | 82-1  | 4884     | 4893     | 4946     | 4908     | 0.69   | cps   |
| Selenium   | 77-2  | 583      | 627      | 510      | 573      | 10.29  | cps   |
| Selenium   | 78-2  | 2074     | 2120     | 2174     | 2122     | 2.36   | cps   |
| Silicon    | 28-1  | 18394347 | 17605079 | 17742132 | 17913853 | 2.35   | cps   |
| Silver     | 107-1 | 184564   | 187380   | 187994   | 186646   | 0.98   | cps   |
| Silver     | 109-1 | 176638   | 178595   | 176868   | 177367   | 0.60   | cps   |
| Sodium     | 23-2  | 7732349  | 7818527  | 7712007  | 7754294  | 0.73   | cps   |
| Strontium  | 86-1  | 286269   | 288667   | 288502   | 287812   | 0.47   | cps   |
| Strontium  | 88-1  | 2610224  | 2597340  | 2608445  | 2605336  | 0.27   | cps   |
| Sulfur     | 34-1  | 243591   | 241911   | 242162   | 242555   | 0.37   | cps   |
| Terbium    | 159-1 | 15713457 | 15373593 | 15163704 | 15416918 | 1.80   | cps   |
| Terbium    | 159-2 | 10222217 | 10286623 | 10300555 | 10269798 | 0.41   | cps   |
| Thallium   | 203-1 | 129011   | 129230   | 128892   | 129044   | 0.13   | cps   |
| Thallium   | 205-1 | 303357   | 305811   | 309820   | 306330   | 1.07   | cps   |
| Tin        | 118-1 | 667572   | 674567   | 671620   | 671253   | 0.52   | cps   |
| Titanium   | 47-1  | 758357   | 760242   | 751984   | 756861   | 0.57   | cps   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

P5249-03

Instrumnet Name :

P7

Client Sample ID :

MJNKG0S

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 18:15:03

DataFile Name :

040SMPL.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 47716    | 47813    | 46428    | 47319    | 1.63   | cps   |
| Vanadium  | 51-2  | 706414   | 710317   | 704660   | 707131   | 0.41   | cps   |
| Yttrium   | 89-1  | 14457885 | 14079614 | 14145979 | 14227826 | 1.42   | cps   |
| Yttrium   | 89-2  | 3885614  | 3868416  | 3848707  | 3867579  | 0.48   | cps   |
| Zinc      | 66-2  | 2791125  | 2788614  | 2785551  | 2788430  | 0.10   | cps   |
| Zirconium | 90-1  | 64163    | 65251    | 65000    | 64804    | 0.88   | cps   |
| Zirconium | 91-1  | 14941    | 15392    | 15058    | 15130    | 1.55   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5272-04 Instrumnet Name : P7  
Client Sample ID : MJNKJ9 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:18:03 DataFile Name : 041SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 1047807  | 1043760  | 1056692  | 1049420  | 0.63   | cps   |
| Antimony   | 121-1 | 72629    | 74733    | 74167    | 73843    | 1.47   | cps   |
| Arsenic    | 75-2  | 51134    | 52047    | 50954    | 51379    | 1.14   | cps   |
| Barium     | 135-1 | 97720    | 101381   | 100176   | 99759    | 1.87   | cps   |
| Barium     | 137-1 | 171131   | 174142   | 171473   | 172249   | 0.96   | cps   |
| Beryllium  | 9-1   | 260      | 223      | 207      | 230      | 11.86  | cps   |
| Bismuth    | 209-1 | 9760266  | 9393101  | 9155053  | 9436140  | 3.23   | cps   |
| Bismuth    | 209-2 | 7424619  | 7366886  | 6233672  | 7008392  | 9.58   | cps   |
| Bromine    | 81-1  | 41759    | 45373    | 45971    | 44368    | 5.14   | cps   |
| Bromine    | 81-2  | 6361     | 6121     | 6381     | 6288     | 2.30   | cps   |
| Cadmium    | 108-1 | 227      | 243      | 403      | 291      | 33.52  | cps   |
| Cadmium    | 106-1 | 3671     | 3477     | 3440     | 3529     | 3.50   | cps   |
| Cadmium    | 111-1 | 5369     | 5537     | 5195     | 5367     | 3.19   | cps   |
| Calcium    | 43-1  | 147792   | 152103   | 153029   | 150975   | 1.85   | cps   |
| Calcium    | 44-1  | 2323592  | 2408787  | 2344827  | 2359069  | 1.88   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 78215    | 77374    | 77736    | 77775    | 0.54   | cps   |
| Cobalt     | 59-2  | 77927    | 76698    | 76926    | 77184    | 0.85   | cps   |
| Copper     | 63-2  | 10329888 | 10096650 | 10248413 | 10224984 | 1.16   | cps   |
| Dysprosium | 156-1 | 22542    | 23730    | 24328    | 23533    | 3.86   | cps   |
| Dysprosium | 156-2 | 18759    | 18736    | 19684    | 19060    | 2.84   | cps   |
| Erbium     | 164-1 | 20602    | 20979    | 21330    | 20970    | 1.74   | cps   |
| Erbium     | 164-2 | 14534    | 14154    | 14414    | 14367    | 1.35   | cps   |
| Gadolinium | 160-1 | 22905    | 23373    | 23286    | 23188    | 1.07   | cps   |
| Gadolinium | 160-2 | 17518    | 16920    | 17337    | 17258    | 1.78   | cps   |
| Holmium    | 165-1 | 15788834 | 15037447 | 15121591 | 15315957 | 2.69   | cps   |
| Holmium    | 165-2 | 10256999 | 10409808 | 8712229  | 9793012  | 9.59   | cps   |
| Indium     | 115-1 | 12755567 | 12050902 | 11996052 | 12267507 | 3.45   | cps   |
| Indium     | 115-2 | 4389054  | 4306665  | 3702061  | 4132593  | 9.08   | cps   |
| Iron       | 56-2  | 58090521 | 57765399 | 57688514 | 57848145 | 0.37   | cps   |
| Iron       | 57-2  | 1434902  | 1443323  | 1476122  | 1451449  | 1.50   | cps   |
| Iron       | 54-2  | 3220364  | 3180065  | 3219223  | 3206550  | 0.72   | cps   |
| Krypton    | 83-1  | 277      | 247      | 263      | 262      | 5.73   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5272-04 Instrumnet Name : P7  
Client Sample ID : MJNKJ9 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:18:03 DataFile Name : 041SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 2071391  | 2111227  | 2104253  | 2095623  | 1.02   | cps   |
| Lead       | 207-1 | 1769811  | 1789147  | 1821848  | 1793602  | 1.47   | cps   |
| Lead       | 208-1 | 8191148  | 8262645  | 8265080  | 8239624  | 0.51   | cps   |
| Lithium    | 6-1   | 1331418  | 1245406  | 1237232  | 1271352  | 4.10   | cps   |
| Magnesium  | 24-2  | 1307299  | 1255367  | 1318441  | 1293703  | 2.60   | cps   |
| Manganese  | 55-2  | 250398   | 246825   | 249072   | 248765   | 0.73   | cps   |
| Molybdenum | 94-1  | 11795    | 12235    | 12082    | 12037    | 1.86   | cps   |
| Molybdenum | 95-1  | 10914    | 11321    | 11021    | 11085    | 1.90   | cps   |
| Molybdenum | 96-1  | 13920    | 13553    | 13453    | 13642    | 1.80   | cps   |
| Molybdenum | 97-1  | 7269     | 7292     | 6845     | 7135     | 3.53   | cps   |
| Molybdenum | 98-1  | 17921    | 18642    | 18218    | 18260    | 1.98   | cps   |
| Neodymium  | 150-1 | 36086    | 37533    | 37443    | 37021    | 2.19   | cps   |
| Neodymium  | 150-2 | 22398    | 21770    | 22461    | 22210    | 1.72   | cps   |
| Nickel     | 60-2  | 20824    | 21102    | 21479    | 21135    | 1.55   | cps   |
| Phosphorus | 31-2  | 14831    | 14881    | 15471    | 15061    | 2.37   | cps   |
| Potassium  | 39-2  | 1032700  | 1027321  | 1028598  | 1029540  | 0.27   | cps   |
| Rhodium    | 103-1 | 11951654 | 11264118 | 11148882 | 11454885 | 3.79   | cps   |
| Rhodium    | 103-2 | 6780441  | 6814566  | 5594188  | 6396398  | 10.86  | cps   |
| Scandium   | 45-1  | 6540544  | 6215153  | 6171261  | 6308986  | 3.20   | cps   |
| Scandium   | 45-2  | 574143   | 568641   | 485398   | 542727   | 9.16   | cps   |
| Selenium   | 82-1  | 433      | 498      | 458      | 463      | 7.04   | cps   |
| Selenium   | 77-2  | 60       | 83       | 47       | 63       | 29.30  | cps   |
| Selenium   | 78-2  | 570      | 533      | 593      | 566      | 5.35   | cps   |
| Silicon    | 28-1  | 11807486 | 11340972 | 11298563 | 11482340 | 2.46   | cps   |
| Silver     | 107-1 | 95908    | 98709    | 97669    | 97429    | 1.45   | cps   |
| Silver     | 109-1 | 91383    | 93781    | 92932    | 92698    | 1.31   | cps   |
| Sodium     | 23-2  | 9407109  | 9141908  | 9340796  | 9296604  | 1.48   | cps   |
| Strontium  | 86-1  | 163457   | 170676   | 168903   | 167679   | 2.24   | cps   |
| Strontium  | 88-1  | 1456226  | 1492349  | 1502725  | 1483767  | 1.65   | cps   |
| Sulfur     | 34-1  | 329720   | 337811   | 335756   | 334429   | 1.26   | cps   |
| Terbium    | 159-1 | 16199518 | 15595631 | 15403111 | 15732753 | 2.64   | cps   |
| Terbium    | 159-2 | 10230310 | 10098440 | 8541263  | 9623338  | 9.76   | cps   |
| Thallium   | 203-1 | 5218     | 5468     | 5218     | 5301     | 2.72   | cps   |
| Thallium   | 205-1 | 12539    | 12686    | 12743    | 12656    | 0.83   | cps   |
| Tin        | 118-1 | 125041   | 129970   | 129516   | 128176   | 2.13   | cps   |
| Titanium   | 47-1  | 278624   | 283746   | 282152   | 281507   | 0.93   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5272-04 Instrumnet Name : P7  
Client Sample ID : MJNKKJ9 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:18:03 DataFile Name : 041SMPL.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 37085    | 39181    | 38489    | 38252    | 2.79   | cps   |
| Vanadium  | 51-2  | 67972    | 67560    | 69543    | 68358    | 1.53   | cps   |
| Yttrium   | 89-1  | 14952309 | 14117189 | 14276754 | 14448750 | 3.07   | cps   |
| Yttrium   | 89-2  | 3854494  | 3834736  | 3265828  | 3651686  | 9.15   | cps   |
| Zinc      | 66-2  | 399823   | 396478   | 406333   | 400878   | 1.25   | cps   |
| Zirconium | 90-1  | 15555    | 15618    | 15545    | 15573    | 0.26   | cps   |
| Zirconium | 91-1  | 3597     | 3454     | 3454     | 3502     | 2.36   | cps   |

LB Number :LB134060Operator :Jaswal

Lab Sample ID :P5272-05Instrumnet Name :P7

Client Sample ID :MJNKJ9DDilution Factor :1

Date & Time Acquired :2024-12-21 18:21:10DataFile Name :042SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 1074745  | 1083002  | 1076393  | 1078046  | 0.41   | cps   |
| Antimony   | 121-1 | 74515    | 73670    | 74555    | 74247    | 0.67   | cps   |
| Arsenic    | 75-2  | 50840    | 50867    | 50362    | 50690    | 0.56   | cps   |
| Barium     | 135-1 | 94749    | 95202    | 95279    | 95077    | 0.30   | cps   |
| Barium     | 137-1 | 165687   | 166930   | 165366   | 165994   | 0.50   | cps   |
| Beryllium  | 9-1   | 180      | 227      | 220      | 209      | 12.08  | cps   |
| Bismuth    | 209-1 | 9444173  | 9428980  | 9289935  | 9387696  | 0.91   | cps   |
| Bismuth    | 209-2 | 7310943  | 7355314  | 7391548  | 7352602  | 0.55   | cps   |
| Bromine    | 81-1  | 43848    | 46600    | 48155    | 46201    | 4.72   | cps   |
| Bromine    | 81-2  | 6725     | 6552     | 6602     | 6626     | 1.35   | cps   |
| Cadmium    | 108-1 | 233      | 230      | 197      | 220      | 9.22   | cps   |
| Cadmium    | 106-1 | 3460     | 3640     | 3227     | 3443     | 6.02   | cps   |
| Cadmium    | 111-1 | 5332     | 5643     | 5301     | 5425     | 3.48   | cps   |
| Calcium    | 43-1  | 157019   | 158080   | 157154   | 157418   | 0.37   | cps   |
| Calcium    | 44-1  | 2492118  | 2468371  | 2457159  | 2472549  | 0.72   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 80570    | 79022    | 80215    | 79936    | 1.01   | cps   |
| Cobalt     | 59-2  | 76256    | 74601    | 76035    | 75630    | 1.19   | cps   |
| Copper     | 63-2  | 10325985 | 10128641 | 10135541 | 10196722 | 1.10   | cps   |
| Dysprosium | 156-1 | 23206    | 23296    | 23460    | 23321    | 0.55   | cps   |
| Dysprosium | 156-2 | 18572    | 18682    | 18709    | 18655    | 0.39   | cps   |
| Erbium     | 164-1 | 20528    | 21190    | 20522    | 20747    | 1.85   | cps   |
| Erbium     | 164-2 | 14084    | 14424    | 14010    | 14173    | 1.56   | cps   |
| Gadolinium | 160-1 | 22986    | 23774    | 23323    | 23361    | 1.69   | cps   |
| Gadolinium | 160-2 | 17368    | 17571    | 16980    | 17306    | 1.73   | cps   |
| Holmium    | 165-1 | 15336374 | 15022159 | 14873200 | 15077244 | 1.57   | cps   |
| Holmium    | 165-2 | 10269428 | 10292724 | 10347740 | 10303297 | 0.39   | cps   |
| Indium     | 115-1 | 12292010 | 12088865 | 12107869 | 12162915 | 0.92   | cps   |
| Indium     | 115-2 | 4314093  | 4323430  | 4445188  | 4360904  | 1.68   | cps   |
| Iron       | 56-2  | 57363637 | 56466882 | 57371556 | 57067359 | 0.91   | cps   |
| Iron       | 57-2  | 1408348  | 1415893  | 1418834  | 1414358  | 0.38   | cps   |
| Iron       | 54-2  | 3165247  | 3119395  | 3128204  | 3137615  | 0.78   | cps   |
| Krypton    | 83-1  | 210      | 250      | 253      | 238      | 10.14  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5272-05 Instrumnet Name : P7  
Client Sample ID : MJNKG9D Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:21:10 DataFile Name : 042SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 2088366  | 2127283  | 2077795  | 2097815  | 1.24   | cps   |
| Lead       | 207-1 | 1798146  | 1827181  | 1795448  | 1806925  | 0.97   | cps   |
| Lead       | 208-1 | 8283709  | 8395863  | 8172784  | 8284119  | 1.35   | cps   |
| Lithium    | 6-1   | 1226282  | 1270035  | 1244410  | 1246909  | 1.76   | cps   |
| Magnesium  | 24-2  | 1272717  | 1280551  | 1298146  | 1283805  | 1.01   | cps   |
| Manganese  | 55-2  | 240197   | 242284   | 242988   | 241823   | 0.60   | cps   |
| Molybdenum | 94-1  | 12122    | 11952    | 12128    | 12067    | 0.83   | cps   |
| Molybdenum | 95-1  | 11094    | 11108    | 10911    | 11038    | 1.00   | cps   |
| Molybdenum | 96-1  | 13056    | 13563    | 13466    | 13362    | 2.02   | cps   |
| Molybdenum | 97-1  | 6898     | 6762     | 6935     | 6865     | 1.33   | cps   |
| Molybdenum | 98-1  | 17741    | 17290    | 17751    | 17594    | 1.50   | cps   |
| Neodymium  | 150-1 | 37543    | 37513    | 36928    | 37328    | 0.93   | cps   |
| Neodymium  | 150-2 | 20992    | 21667    | 21610    | 21423    | 1.75   | cps   |
| Nickel     | 60-2  | 20558    | 20501    | 20981    | 20680    | 1.27   | cps   |
| Phosphorus | 31-2  | 15231    | 15171    | 15118    | 15173    | 0.37   | cps   |
| Potassium  | 39-2  | 1022334  | 1022259  | 1026185  | 1023593  | 0.22   | cps   |
| Rhodium    | 103-1 | 11275013 | 11328332 | 11117512 | 11240286 | 0.98   | cps   |
| Rhodium    | 103-2 | 6706629  | 6874745  | 6786669  | 6789348  | 1.24   | cps   |
| Scandium   | 45-1  | 6189311  | 6134096  | 6128700  | 6150702  | 0.55   | cps   |
| Scandium   | 45-2  | 563148   | 573767   | 562664   | 566526   | 1.11   | cps   |
| Selenium   | 82-1  | 542      | 422      | 482      | 482      | 12.47  | cps   |
| Selenium   | 77-2  | 113      | 53       | 87       | 84       | 35.60  | cps   |
| Selenium   | 78-2  | 570      | 493      | 543      | 536      | 7.27   | cps   |
| Silicon    | 28-1  | 10939919 | 11811485 | 11713869 | 11488424 | 4.16   | cps   |
| Silver     | 107-1 | 96582    | 96716    | 96421    | 96573    | 0.15   | cps   |
| Silver     | 109-1 | 93110    | 92697    | 92848    | 92885    | 0.22   | cps   |
| Sodium     | 23-2  | 9540393  | 9581126  | 9609135  | 9576885  | 0.36   | cps   |
| Strontium  | 86-1  | 181629   | 181301   | 181008   | 181313   | 0.17   | cps   |
| Strontium  | 88-1  | 1658064  | 1645352  | 1615929  | 1639782  | 1.32   | cps   |
| Sulfur     | 34-1  | 336714   | 339388   | 337903   | 338002   | 0.40   | cps   |
| Terbium    | 159-1 | 15745191 | 15486575 | 15103224 | 15444996 | 2.09   | cps   |
| Terbium    | 159-2 | 10225804 | 10149776 | 10310807 | 10228796 | 0.79   | cps   |
| Thallium   | 203-1 | 5131     | 5238     | 5371     | 5247     | 2.29   | cps   |
| Thallium   | 205-1 | 12276    | 12583    | 12192    | 12350    | 1.66   | cps   |
| Tin        | 118-1 | 125292   | 126062   | 127185   | 126180   | 0.75   | cps   |
| Titanium   | 47-1  | 272426   | 271723   | 272981   | 272377   | 0.23   | cps   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

P5272-05

Instrumnet Name :

P7

Client Sample ID :

MJNKJ9D

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 18:21:10

DataFile Name :

042SMPL.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 38596    | 38473    | 39412    | 38827    | 1.31   | cps   |
| Vanadium  | 51-2  | 68424    | 67898    | 67845    | 68056    | 0.47   | cps   |
| Yttrium   | 89-1  | 14330436 | 14111940 | 14066572 | 14169649 | 1.00   | cps   |
| Yttrium   | 89-2  | 3869312  | 3849016  | 3868579  | 3862302  | 0.30   | cps   |
| Zinc      | 66-2  | 389298   | 390667   | 395063   | 391676   | 0.77   | cps   |
| Zirconium | 90-1  | 15502    | 15562    | 15972    | 15679    | 1.63   | cps   |
| Zirconium | 91-1  | 3537     | 3570     | 3514     | 3540     | 0.80   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5272-04LX5 Instrumnet Name : P7  
Client Sample ID : MJNKJ9L Dilution Factor : 5  
Date & Time Acquired : 2024-12-21 18:24:19 DataFile Name : 043SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 208101   | 207375   | 206532   | 207336   | 0.38   | cps   |
| Antimony   | 121-1 | 14761    | 14524    | 14301    | 14529    | 1.58   | cps   |
| Arsenic    | 75-2  | 10010    | 10257    | 9670     | 9979     | 2.95   | cps   |
| Barium     | 135-1 | 19079    | 18919    | 18529    | 18843    | 1.50   | cps   |
| Barium     | 137-1 | 32554    | 32668    | 32380    | 32534    | 0.44   | cps   |
| Beryllium  | 9-1   | 90       | 73       | 77       | 80       | 11.02  | cps   |
| Bismuth    | 209-1 | 8925413  | 9028412  | 8865704  | 8939843  | 0.92   | cps   |
| Bismuth    | 209-2 | 7113000  | 7286198  | 7197393  | 7198864  | 1.20   | cps   |
| Bromine    | 81-1  | 22955    | 22511    | 23051    | 22839    | 1.26   | cps   |
| Bromine    | 81-2  | 1630     | 1540     | 1530     | 1567     | 3.52   | cps   |
| Cadmium    | 108-1 | 47       | 60       | 63       | 57       | 15.56  | cps   |
| Cadmium    | 106-1 | 3234     | 2887     | 3007     | 3043     | 5.79   | cps   |
| Cadmium    | 111-1 | 2754     | 2591     | 2672     | 2672     | 3.05   | cps   |
| Calcium    | 43-1  | 29893    | 29996    | 29572    | 29820    | 0.74   | cps   |
| Calcium    | 44-1  | 485719   | 486542   | 486077   | 486113   | 0.08   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 16286    | 16673    | 16532    | 16497    | 1.19   | cps   |
| Cobalt     | 59-2  | 15024    | 14867    | 14908    | 14933    | 0.55   | cps   |
| Copper     | 63-2  | 2071070  | 2055425  | 2032737  | 2053077  | 0.94   | cps   |
| Dysprosium | 156-1 | 4734     | 4531     | 4594     | 4620     | 2.25   | cps   |
| Dysprosium | 156-2 | 3651     | 3831     | 3801     | 3761     | 2.56   | cps   |
| Erbium     | 164-1 | 4164     | 4317     | 4127     | 4203     | 2.40   | cps   |
| Erbium     | 164-2 | 2687     | 2747     | 2757     | 2730     | 1.39   | cps   |
| Gadolinium | 160-1 | 4731     | 4554     | 4404     | 4563     | 3.58   | cps   |
| Gadolinium | 160-2 | 3801     | 3991     | 3957     | 3916     | 2.59   | cps   |
| Holmium    | 165-1 | 14670923 | 14547528 | 14492531 | 14570327 | 0.63   | cps   |
| Holmium    | 165-2 | 10075348 | 10162047 | 10162447 | 10133281 | 0.50   | cps   |
| Indium     | 115-1 | 11788794 | 11843441 | 11659920 | 11764052 | 0.80   | cps   |
| Indium     | 115-2 | 4286187  | 4252799  | 4281102  | 4273363  | 0.42   | cps   |
| Iron       | 56-2  | 11471534 | 11246094 | 11350733 | 11356120 | 0.99   | cps   |
| Iron       | 57-2  | 287767   | 288081   | 282901   | 286250   | 1.01   | cps   |
| Iron       | 54-2  | 635137   | 629938   | 624207   | 629761   | 0.87   | cps   |
| Krypton    | 83-1  | 250      | 237      | 197      | 228      | 12.19  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5272-04LX5 Instrumnet Name : P7  
Client Sample ID : MJNKJ9L Dilution Factor : 5  
Date & Time Acquired : 2024-12-21 18:24:19 DataFile Name : 043SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 377447   | 380996   | 379903   | 379449   | 0.48   | cps   |
| Lead       | 207-1 | 327046   | 325209   | 321575   | 324610   | 0.86   | cps   |
| Lead       | 208-1 | 1488334  | 1492803  | 1479589  | 1486909  | 0.45   | cps   |
| Lithium    | 6-1   | 1215718  | 1183811  | 1185047  | 1194859  | 1.51   | cps   |
| Magnesium  | 24-2  | 248327   | 245177   | 244490   | 245998   | 0.83   | cps   |
| Manganese  | 55-2  | 49019    | 48220    | 48244    | 48494    | 0.94   | cps   |
| Molybdenum | 94-1  | 2697     | 2450     | 2374     | 2507     | 6.74   | cps   |
| Molybdenum | 95-1  | 2200     | 2167     | 2050     | 2139     | 3.68   | cps   |
| Molybdenum | 96-1  | 2844     | 2890     | 2727     | 2820     | 2.98   | cps   |
| Molybdenum | 97-1  | 1520     | 1487     | 1580     | 1529     | 3.09   | cps   |
| Molybdenum | 98-1  | 3811     | 3721     | 3777     | 3769     | 1.21   | cps   |
| Neodymium  | 150-1 | 7422     | 7325     | 7209     | 7319     | 1.46   | cps   |
| Neodymium  | 150-2 | 4334     | 4334     | 4577     | 4415     | 3.18   | cps   |
| Nickel     | 60-2  | 6288     | 6211     | 6028     | 6176     | 2.16   | cps   |
| Phosphorus | 31-2  | 3164     | 3170     | 3194     | 3176     | 0.50   | cps   |
| Potassium  | 39-2  | 250972   | 249363   | 250462   | 250266   | 0.33   | cps   |
| Rhodium    | 103-1 | 10970801 | 10830616 | 10893340 | 10898252 | 0.64   | cps   |
| Rhodium    | 103-2 | 6643625  | 6666135  | 6617062  | 6642274  | 0.37   | cps   |
| Scandium   | 45-1  | 6033840  | 6036643  | 5865756  | 5978746  | 1.64   | cps   |
| Scandium   | 45-2  | 553819   | 557355   | 555722   | 555632   | 0.32   | cps   |
| Selenium   | 82-1  | 344      | 337      | 356      | 346      | 2.80   | cps   |
| Selenium   | 77-2  | 17       | 10       | 20       | 16       | 32.73  | cps   |
| Selenium   | 78-2  | 507      | 430      | 517      | 484      | 9.79   | cps   |
| Silicon    | 28-1  | 2902043  | 3129540  | 2778522  | 2936702  | 6.06   | cps   |
| Silver     | 107-1 | 19156    | 19233    | 18909    | 19099    | 0.89   | cps   |
| Silver     | 109-1 | 17951    | 18405    | 18141    | 18166    | 1.25   | cps   |
| Sodium     | 23-2  | 1848777  | 1906286  | 1844968  | 1866677  | 1.84   | cps   |
| Strontium  | 86-1  | 32269    | 32205    | 32720    | 32398    | 0.87   | cps   |
| Strontium  | 88-1  | 284938   | 285510   | 284961   | 285136   | 0.11   | cps   |
| Sulfur     | 34-1  | 180296   | 179730   | 179247   | 179758   | 0.29   | cps   |
| Terbium    | 159-1 | 14922288 | 14724040 | 14973512 | 14873280 | 0.89   | cps   |
| Terbium    | 159-2 | 10050108 | 9924715  | 9901093  | 9958638  | 0.80   | cps   |
| Thallium   | 203-1 | 1343     | 1277     | 1130     | 1250     | 8.73   | cps   |
| Thallium   | 205-1 | 3230     | 3157     | 3084     | 3157     | 2.32   | cps   |
| Tin        | 118-1 | 26979    | 26454    | 26725    | 26719    | 0.98   | cps   |
| Titanium   | 47-1  | 53809    | 54518    | 53531    | 53952    | 0.94   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5272-04LX5 Instrumnet Name : P7  
Client Sample ID : MJNKKJ9L Dilution Factor : 5  
Date & Time Acquired : 2024-12-21 18:24:19 DataFile Name : 043SMPL.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 7472     | 7666     | 7372     | 7503     | 1.99   | cps   |
| Vanadium  | 51-2  | 13199    | 13666    | 13166    | 13344    | 2.10   | cps   |
| Yttrium   | 89-1  | 13651425 | 13643861 | 13439694 | 13578327 | 0.88   | cps   |
| Yttrium   | 89-2  | 3728251  | 3720850  | 3681644  | 3710248  | 0.68   | cps   |
| Zinc      | 66-2  | 78448    | 78234    | 79316    | 78666    | 0.73   | cps   |
| Zirconium | 90-1  | 3300     | 3437     | 3597     | 3445     | 4.31   | cps   |
| Zirconium | 91-1  | 743      | 683      | 770      | 732      | 6.06   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5272-06 Instrumnet Name : P7  
Client Sample ID : MJNKG9S Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:27:31 DataFile Name : 044SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 1199366  | 1146765  | 1147614  | 1164582  | 2.59   | cps   |
| Antimony   | 121-1 | 355390   | 351247   | 354635   | 353757   | 0.62   | cps   |
| Arsenic    | 75-2  | 56744    | 55249    | 55757    | 55917    | 1.36   | cps   |
| Barium     | 135-1 | 1468577  | 1457033  | 1468471  | 1464694  | 0.45   | cps   |
| Barium     | 137-1 | 2708493  | 2638276  | 2636194  | 2660988  | 1.55   | cps   |
| Beryllium  | 9-1   | 13039    | 13392    | 13373    | 13268    | 1.50   | cps   |
| Bismuth    | 209-1 | 9320425  | 9457118  | 9247271  | 9341605  | 1.14   | cps   |
| Bismuth    | 209-2 | 7390487  | 7306448  | 7397396  | 7364777  | 0.69   | cps   |
| Bromine    | 81-1  | 41909    | 44056    | 45476    | 43814    | 4.10   | cps   |
| Bromine    | 81-2  | 6495     | 6542     | 6595     | 6544     | 0.76   | cps   |
| Cadmium    | 108-1 | 2620     | 2754     | 2740     | 2705     | 2.72   | cps   |
| Cadmium    | 106-1 | 6798     | 6451     | 6885     | 6712     | 3.42   | cps   |
| Cadmium    | 111-1 | 42026    | 41207    | 41617    | 41617    | 0.98   | cps   |
| Calcium    | 43-1  | 151376   | 152231   | 151834   | 151814   | 0.28   | cps   |
| Calcium    | 44-1  | 2386026  | 2339788  | 2391740  | 2372518  | 1.20   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 302997   | 301626   | 302942   | 302522   | 0.26   | cps   |
| Cobalt     | 59-2  | 965261   | 957012   | 959126   | 960466   | 0.45   | cps   |
| Copper     | 63-2  | 10603166 | 10427759 | 10328808 | 10453244 | 1.33   | cps   |
| Dysprosium | 156-1 | 23203    | 23102    | 22932    | 23079    | 0.59   | cps   |
| Dysprosium | 156-2 | 18679    | 18639    | 18639    | 18652    | 0.12   | cps   |
| Erbium     | 164-1 | 20218    | 20665    | 20609    | 20497    | 1.19   | cps   |
| Erbium     | 164-2 | 14621    | 14027    | 14221    | 14290    | 2.12   | cps   |
| Gadolinium | 160-1 | 23012    | 23503    | 23386    | 23301    | 1.10   | cps   |
| Gadolinium | 160-2 | 17648    | 17274    | 17668    | 17530    | 1.27   | cps   |
| Holmium    | 165-1 | 15112403 | 14983117 | 14900231 | 14998584 | 0.71   | cps   |
| Holmium    | 165-2 | 10442502 | 10285842 | 10424792 | 10384378 | 0.83   | cps   |
| Indium     | 115-1 | 12134427 | 12091132 | 11988512 | 12071357 | 0.62   | cps   |
| Indium     | 115-2 | 4394392  | 4366374  | 4384957  | 4381908  | 0.33   | cps   |
| Iron       | 56-2  | 58256136 | 57630201 | 56995007 | 57627115 | 1.09   | cps   |
| Iron       | 57-2  | 1424420  | 1431332  | 1439690  | 1431814  | 0.53   | cps   |
| Iron       | 54-2  | 3143949  | 3150217  | 3189999  | 3161388  | 0.79   | cps   |
| Krypton    | 83-1  | 213      | 280      | 307      | 267      | 18.03  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5272-06 Instrumnet Name : P7  
Client Sample ID : MJNKG9S Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:27:31 DataFile Name : 044SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 2141683  | 2104817  | 2125752  | 2124084  | 0.87   | cps   |
| Lead       | 207-1 | 1832649  | 1860878  | 1658640  | 1784056  | 6.14   | cps   |
| Lead       | 208-1 | 8469728  | 8464183  | 8118483  | 8350798  | 2.41   | cps   |
| Lithium    | 6-1   | 1281941  | 1249435  | 1250563  | 1260646  | 1.46   | cps   |
| Magnesium  | 24-2  | 1251268  | 1240002  | 1250760  | 1247343  | 0.51   | cps   |
| Manganese  | 55-2  | 684345   | 679753   | 675763   | 679953   | 0.63   | cps   |
| Molybdenum | 94-1  | 11755    | 11785    | 11808    | 11783    | 0.23   | cps   |
| Molybdenum | 95-1  | 10984    | 10907    | 10764    | 10885    | 1.03   | cps   |
| Molybdenum | 96-1  | 12989    | 13530    | 13106    | 13208    | 2.15   | cps   |
| Molybdenum | 97-1  | 6848     | 6828     | 6978     | 6885     | 1.18   | cps   |
| Molybdenum | 98-1  | 17898    | 17527    | 17397    | 17607    | 1.48   | cps   |
| Neodymium  | 150-1 | 36597    | 36604    | 36858    | 36687    | 0.41   | cps   |
| Neodymium  | 150-2 | 22097    | 22194    | 21753    | 22015    | 1.05   | cps   |
| Nickel     | 60-2  | 245955   | 246539   | 245068   | 245854   | 0.30   | cps   |
| Phosphorus | 31-2  | 14964    | 14757    | 14440    | 14721    | 1.79   | cps   |
| Potassium  | 39-2  | 1017897  | 1009121  | 1017680  | 1014899  | 0.49   | cps   |
| Rhodium    | 103-1 | 11043139 | 11035366 | 10932447 | 11003651 | 0.56   | cps   |
| Rhodium    | 103-2 | 6803758  | 6777300  | 6812917  | 6797992  | 0.27   | cps   |
| Scandium   | 45-1  | 6183033  | 6018074  | 6238066  | 6146391  | 1.86   | cps   |
| Scandium   | 45-2  | 572370   | 569208   | 566509   | 569362   | 0.52   | cps   |
| Selenium   | 82-1  | 4853     | 4884     | 4939     | 4892     | 0.89   | cps   |
| Selenium   | 77-2  | 490      | 530      | 580      | 533      | 8.46   | cps   |
| Selenium   | 78-2  | 2257     | 2254     | 2137     | 2216     | 3.08   | cps   |
| Silicon    | 28-1  | 11226024 | 11216651 | 11032763 | 11158479 | 0.98   | cps   |
| Silver     | 107-1 | 273710   | 272992   | 273809   | 273504   | 0.16   | cps   |
| Silver     | 109-1 | 260251   | 263492   | 260135   | 261292   | 0.73   | cps   |
| Sodium     | 23-2  | 9273861  | 9179490  | 9167011  | 9206788  | 0.63   | cps   |
| Strontium  | 86-1  | 170144   | 170434   | 169628   | 170068   | 0.24   | cps   |
| Strontium  | 88-1  | 1519594  | 1538427  | 1510463  | 1522828  | 0.94   | cps   |
| Sulfur     | 34-1  | 332596   | 332620   | 334717   | 333311   | 0.37   | cps   |
| Terbium    | 159-1 | 15486969 | 15294054 | 15278581 | 15353201 | 0.76   | cps   |
| Terbium    | 159-2 | 10183762 | 9955640  | 10123413 | 10087605 | 1.17   | cps   |
| Thallium   | 203-1 | 135102   | 135953   | 135308   | 135455   | 0.33   | cps   |
| Thallium   | 205-1 | 321440   | 320460   | 319527   | 320476   | 0.30   | cps   |
| Tin        | 118-1 | 125531   | 125877   | 127045   | 126151   | 0.63   | cps   |
| Titanium   | 47-1  | 272514   | 269446   | 276809   | 272923   | 1.36   | cps   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

P5272-06

Instrumnet Name :

P7

Client Sample ID :

MJNKJ9S

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 18:27:31

DataFile Name :

044SMPL.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 39462    | 39037    | 38249    | 38916    | 1.58   | cps   |
| Vanadium  | 51-2  | 558858   | 557553   | 552121   | 556178   | 0.64   | cps   |
| Yttrium   | 89-1  | 14127932 | 13895319 | 14098067 | 14040440 | 0.90   | cps   |
| Yttrium   | 89-2  | 3810397  | 3806435  | 3813152  | 3809995  | 0.09   | cps   |
| Zinc      | 66-2  | 505561   | 499492   | 498472   | 501175   | 0.76   | cps   |
| Zirconium | 90-1  | 15532    | 15355    | 15281    | 15389    | 0.84   | cps   |
| Zirconium | 91-1  | 3294     | 3404     | 3510     | 3403     | 3.18   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5273-01 Instrumnet Name : P7  
Client Sample ID : MJNKH1 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:30:38 DataFile Name : 045SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 1017895  | 1015361  | 1014500  | 1015919  | 0.17   | cps   |
| Antimony   | 121-1 | 205264   | 204651   | 204459   | 204792   | 0.21   | cps   |
| Arsenic    | 75-2  | 61336    | 60897    | 61928    | 61387    | 0.84   | cps   |
| Barium     | 135-1 | 162283   | 164228   | 162350   | 162954   | 0.68   | cps   |
| Barium     | 137-1 | 280597   | 277606   | 279066   | 279090   | 0.54   | cps   |
| Beryllium  | 9-1   | 197      | 267      | 260      | 241      | 16.02  | cps   |
| Bismuth    | 209-1 | 9425692  | 9352497  | 9308978  | 9362389  | 0.63   | cps   |
| Bismuth    | 209-2 | 7300163  | 7252253  | 7231878  | 7261431  | 0.48   | cps   |
| Bromine    | 81-1  | 42772    | 45590    | 45928    | 44763    | 3.87   | cps   |
| Bromine    | 81-2  | 6598     | 6405     | 6338     | 6447     | 2.10   | cps   |
| Cadmium    | 108-1 | 383      | 400      | 343      | 376      | 7.75   | cps   |
| Cadmium    | 106-1 | 3804     | 3767     | 3460     | 3677     | 5.13   | cps   |
| Cadmium    | 111-1 | 7212     | 7243     | 6921     | 7125     | 2.49   | cps   |
| Calcium    | 43-1  | 341648   | 340515   | 338740   | 340301   | 0.43   | cps   |
| Calcium    | 44-1  | 5327339  | 5300796  | 5337456  | 5321864  | 0.36   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 79243    | 79974    | 77501    | 78906    | 1.61   | cps   |
| Cobalt     | 59-2  | 133605   | 132902   | 131900   | 132802   | 0.65   | cps   |
| Copper     | 63-2  | 6747740  | 6704319  | 6683515  | 6711858  | 0.49   | cps   |
| Dysprosium | 156-1 | 30269    | 30727    | 31021    | 30672    | 1.23   | cps   |
| Dysprosium | 156-2 | 24909    | 25129    | 24772    | 24937    | 0.72   | cps   |
| Erbium     | 164-1 | 26345    | 25914    | 26676    | 26311    | 1.45   | cps   |
| Erbium     | 164-2 | 17962    | 18185    | 17748    | 17965    | 1.22   | cps   |
| Gadolinium | 160-1 | 30740    | 30316    | 30951    | 30669    | 1.05   | cps   |
| Gadolinium | 160-2 | 22104    | 22264    | 22568    | 22312    | 1.06   | cps   |
| Holmium    | 165-1 | 15110573 | 14835570 | 15057806 | 15001316 | 0.97   | cps   |
| Holmium    | 165-2 | 10328314 | 10183988 | 10187553 | 10233285 | 0.80   | cps   |
| Indium     | 115-1 | 12072661 | 11941585 | 11930338 | 11981528 | 0.66   | cps   |
| Indium     | 115-2 | 4410647  | 4351891  | 4263781  | 4342106  | 1.70   | cps   |
| Iron       | 56-2  | 81785802 | 82181917 | 81622549 | 81863423 | 0.35   | cps   |
| Iron       | 57-2  | 2071919  | 2063520  | 2013922  | 2049787  | 1.53   | cps   |
| Iron       | 54-2  | 4522536  | 4540685  | 4470051  | 4511091  | 0.81   | cps   |
| Krypton    | 83-1  | 190      | 253      | 227      | 223      | 14.24  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : P5273-01 Instrumnet Name : P7  
Client Sample ID : MJNKH1 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:30:38 DataFile Name : 045SMPL.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 3309820  | 3300671  | 3324046  | 3311512  | 0.36   | cps   |
| Lead       | 207-1 | 2906544  | 2900793  | 2881505  | 2896281  | 0.45   | cps   |
| Lead       | 208-1 | 13120241 | 13170223 | 13123089 | 13137851 | 0.21   | cps   |
| Lithium    | 6-1   | 1209407  | 1246509  | 1187616  | 1214511  | 2.45   | cps   |
| Magnesium  | 24-2  | 1337229  | 1317681  | 1335639  | 1330183  | 0.82   | cps   |
| Manganese  | 55-2  | 436927   | 432781   | 431061   | 433590   | 0.70   | cps   |
| Molybdenum | 94-1  | 19640    | 19657    | 19800    | 19699    | 0.45   | cps   |
| Molybdenum | 95-1  | 20862    | 20615    | 20768    | 20748    | 0.60   | cps   |
| Molybdenum | 96-1  | 24658    | 24380    | 24915    | 24651    | 1.08   | cps   |
| Molybdenum | 97-1  | 13179    | 13169    | 13366    | 13238    | 0.84   | cps   |
| Molybdenum | 98-1  | 33428    | 34090    | 33412    | 33643    | 1.15   | cps   |
| Neodymium  | 150-1 | 51370    | 50724    | 50440    | 50845    | 0.94   | cps   |
| Neodymium  | 150-2 | 30242    | 29257    | 28987    | 29495    | 2.24   | cps   |
| Nickel     | 60-2  | 21813    | 21993    | 21813    | 21873    | 0.48   | cps   |
| Phosphorus | 31-2  | 19783    | 19957    | 20133    | 19958    | 0.88   | cps   |
| Potassium  | 39-2  | 1123779  | 1114750  | 1106466  | 1114999  | 0.78   | cps   |
| Rhodium    | 103-1 | 11137320 | 11108915 | 10941676 | 11062637 | 0.96   | cps   |
| Rhodium    | 103-2 | 6737157  | 6702506  | 6650555  | 6696739  | 0.65   | cps   |
| Scandium   | 45-1  | 6136674  | 6138524  | 6109053  | 6128084  | 0.27   | cps   |
| Scandium   | 45-2  | 566205   | 563063   | 564048   | 564439   | 0.28   | cps   |
| Selenium   | 82-1  | 562      | 417      | 466      | 482      | 15.30  | cps   |
| Selenium   | 77-2  | 123      | 90       | 90       | 101      | 19.03  | cps   |
| Selenium   | 78-2  | 613      | 537      | 537      | 562      | 7.87   | cps   |
| Silicon    | 28-1  | 11252634 | 11702243 | 11568616 | 11507831 | 2.01   | cps   |
| Silver     | 107-1 | 47728    | 47407    | 47417    | 47517    | 0.38   | cps   |
| Silver     | 109-1 | 45849    | 44635    | 45137    | 45207    | 1.35   | cps   |
| Sodium     | 23-2  | 8488587  | 8356487  | 8301799  | 8382291  | 1.15   | cps   |
| Strontium  | 86-1  | 259293   | 260058   | 257196   | 258849   | 0.57   | cps   |
| Strontium  | 88-1  | 2312937  | 2316862  | 2327800  | 2319200  | 0.33   | cps   |
| Sulfur     | 34-1  | 427616   | 435939   | 441213   | 434922   | 1.58   | cps   |
| Terbium    | 159-1 | 15472680 | 15205708 | 15446730 | 15375039 | 0.96   | cps   |
| Terbium    | 159-2 | 10130004 | 10096318 | 10017961 | 10081427 | 0.57   | cps   |
| Thallium   | 203-1 | 6061     | 5865     | 6058     | 5995     | 1.88   | cps   |
| Thallium   | 205-1 | 14208    | 14595    | 14224    | 14342    | 1.53   | cps   |
| Tin        | 118-1 | 228193   | 230451   | 231841   | 230161   | 0.80   | cps   |
| Titanium   | 47-1  | 348405   | 348687   | 347548   | 348213   | 0.17   | cps   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

P5273-01

Instrumnet Name :

P7

Client Sample ID :

MJNKH1

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 18:30:38

DataFile Name :

045SMPL.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 70580    | 70410    | 70136    | 70375    | 0.32   | cps   |
| Vanadium  | 51-2  | 86982    | 88568    | 85980    | 87177    | 1.50   | cps   |
| Yttrium   | 89-1  | 13966836 | 14002032 | 13982062 | 13983644 | 0.13   | cps   |
| Yttrium   | 89-2  | 3842104  | 3821694  | 3837100  | 3833633  | 0.28   | cps   |
| Zinc      | 66-2  | 907956   | 901328   | 898119   | 902468   | 0.56   | cps   |
| Zirconium | 90-1  | 20137    | 20711    | 21174    | 20674    | 2.51   | cps   |
| Zirconium | 91-1  | 5675     | 4941     | 4691     | 5102     | 10.02  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : CCV038 Instrumnet Name : P7  
Client Sample ID : CCV038 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:33:43 DataFile Name : 046CCV.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Aluminium  | 27-2  | 13617796  | 13528026  | 13560532  | 13568785  | 0.33   | cps   |
| Antimony   | 121-1 | 5991989   | 6054780   | 6008056   | 6018275   | 0.54   | cps   |
| Arsenic    | 75-2  | 292261    | 294272    | 291100    | 292544    | 0.55   | cps   |
| Barium     | 135-1 | 7831012   | 7767925   | 7750071   | 7783002   | 0.55   | cps   |
| Barium     | 137-1 | 13403137  | 13456017  | 13320316  | 13393157  | 0.51   | cps   |
| Beryllium  | 9-1   | 576915    | 584496    | 589380    | 583597    | 1.08   | cps   |
| Bismuth    | 209-1 | 8316871   | 8250584   | 8260865   | 8276107   | 0.43   | cps   |
| Bismuth    | 209-2 | 6558548   | 6505997   | 6526039   | 6530195   | 0.41   | cps   |
| Bromine    | 81-1  | 15562     | 14868     | 15081     | 15170     | 2.34   | cps   |
| Bromine    | 81-2  | 313       | 277       | 330       | 307       | 8.90   | cps   |
| Cadmium    | 108-1 | 105937    | 104731    | 106195    | 105621    | 0.74   | cps   |
| Cadmium    | 106-1 | 155590    | 154114    | 153297    | 154334    | 0.75   | cps   |
| Cadmium    | 111-1 | 1649274   | 1648695   | 1652636   | 1650202   | 0.13   | cps   |
| Calcium    | 43-1  | 7435803   | 7398764   | 7355741   | 7396769   | 0.54   | cps   |
| Calcium    | 44-1  | 121143492 | 118850888 | 118343092 | 119445824 | 1.25   | cps   |
| Carbon     | 12-1  |           |           |           |           |        | cps   |
| Carbon     | 12-2  |           |           |           |           |        | cps   |
| Chlorine   | 35-1  |           |           |           |           |        | cps   |
| Chlorine   | 35-2  |           |           |           |           |        | cps   |
| Chromium   | 52-2  | 2315505   | 2368512   | 2293452   | 2325823   | 1.66   | cps   |
| Cobalt     | 59-2  | 3583969   | 3566525   | 3540410   | 3563635   | 0.62   | cps   |
| Copper     | 63-2  | 25366904  | 25196375  | 25556582  | 25373287  | 0.71   | cps   |
| Dysprosium | 156-1 | 310       | 347       | 250       | 302       | 16.15  | cps   |
| Dysprosium | 156-2 | 487       | 493       | 477       | 486       | 1.73   | cps   |
| Erbium     | 164-1 | 300       | 303       | 330       | 311       | 5.29   | cps   |
| Erbium     | 164-2 | 280       | 167       | 213       | 220       | 25.89  | cps   |
| Gadolinium | 160-1 | 333       | 273       | 303       | 303       | 9.89   | cps   |
| Gadolinium | 160-2 | 677       | 590       | 677       | 648       | 7.72   | cps   |
| Holmium    | 165-1 | 14034428  | 14054616  | 14122938  | 14070660  | 0.33   | cps   |
| Holmium    | 165-2 | 9866170   | 9908375   | 9770588   | 9848378   | 0.72   | cps   |
| Indium     | 115-1 | 10470496  | 10424488  | 10384382  | 10426456  | 0.41   | cps   |
| Indium     | 115-2 | 3762752   | 3814172   | 3787700   | 3788208   | 0.68   | cps   |
| Iron       | 56-2  | 547297112 | 540399792 | 534708925 | 540801943 | 1.17   | cps   |
| Iron       | 57-2  | 13725279  | 13456643  | 13532454  | 13571459  | 1.02   | cps   |
| Iron       | 54-2  | 29655400  | 29501763  | 29557199  | 29571454  | 0.26   | cps   |
| Krypton    | 83-1  | 237       | 197       | 170       | 201       | 16.69  | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : CCV038 Instrumnet Name : P7  
Client Sample ID : CCV038 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:33:43 DataFile Name : 046CCV.d

| Parameter  | Mass  | CPS1      | CPS2      | CPS3      | CPSMean   | CPSRSD | Units |
|------------|-------|-----------|-----------|-----------|-----------|--------|-------|
| Lead       | 206-1 | 24367978  | 24711854  | 24428055  | 24502629  | 0.75   | cps   |
| Lead       | 207-1 | 21328677  | 21498491  | 21704006  | 21510391  | 0.87   | cps   |
| Lead       | 208-1 | 97240219  | 97778539  | 97894417  | 97637725  | 0.36   | cps   |
| Lithium    | 6-1   | 1217163   | 1211732   | 1217271   | 1215389   | 0.26   | cps   |
| Magnesium  | 24-2  | 104569155 | 103781195 | 103105968 | 103818773 | 0.71   | cps   |
| Manganese  | 55-2  | 18406378  | 18642123  | 18366293  | 18471598  | 0.81   | cps   |
| Molybdenum | 94-1  | 20976601  | 20898997  | 20760651  | 20878750  | 0.52   | cps   |
| Molybdenum | 95-1  | 30042444  | 29775104  | 29971476  | 29929675  | 0.46   | cps   |
| Molybdenum | 96-1  | 32924325  | 32595020  | 32770481  | 32763275  | 0.50   | cps   |
| Molybdenum | 97-1  | 18999253  | 18827978  | 18417234  | 18748155  | 1.60   | cps   |
| Molybdenum | 98-1  | 48202878  | 47809698  | 47746209  | 47919595  | 0.52   | cps   |
| Neodymium  | 150-1 | 530       | 427       | 507       | 488       | 11.11  | cps   |
| Neodymium  | 150-2 | 193       | 133       | 173       | 167       | 18.33  | cps   |
| Nickel     | 60-2  | 853890    | 848155    | 846414    | 849486    | 0.46   | cps   |
| Phosphorus | 31-2  | 122287    | 120157    | 120969    | 121138    | 0.89   | cps   |
| Potassium  | 39-2  | 66974989  | 66675607  | 66316089  | 66655562  | 0.49   | cps   |
| Rhodium    | 103-1 | 9651153   | 9325238   | 9311237   | 9429209   | 2.04   | cps   |
| Rhodium    | 103-2 | 5773516   | 5809044   | 5668702   | 5750420   | 1.27   | cps   |
| Scandium   | 45-1  | 5591824   | 5551548   | 5480567   | 5541313   | 1.02   | cps   |
| Scandium   | 45-2  | 503775    | 504204    | 506371    | 504784    | 0.28   | cps   |
| Selenium   | 82-1  | 86329     | 85032     | 86401     | 85920     | 0.90   | cps   |
| Selenium   | 77-2  | 9040      | 9363      | 9130      | 9177      | 1.82   | cps   |
| Selenium   | 78-2  | 30899     | 31002     | 30735     | 30879     | 0.44   | cps   |
| Silicon    | 28-1  | 3212585   | 3212825   | 3184521   | 3203311   | 0.51   | cps   |
| Silver     | 107-1 | 7410756   | 7337461   | 7245005   | 7331074   | 1.13   | cps   |
| Silver     | 109-1 | 7027685   | 7022511   | 7064811   | 7038336   | 0.33   | cps   |
| Sodium     | 23-2  | 170874124 | 171710184 | 170148697 | 170911002 | 0.46   | cps   |
| Strontium  | 86-1  | 1849105   | 1854618   | 1846713   | 1850146   | 0.22   | cps   |
| Strontium  | 88-1  | 16081789  | 16179101  | 16258715  | 16173202  | 0.55   | cps   |
| Sulfur     | 34-1  | 575510    | 564018    | 564525    | 568017    | 1.14   | cps   |
| Terbium    | 159-1 | 14539294  | 14388270  | 14166908  | 14364824  | 1.30   | cps   |
| Terbium    | 159-2 | 9702170   | 9656316   | 9488825   | 9615770   | 1.17   | cps   |
| Thallium   | 203-1 | 6173020   | 6151072   | 6079337   | 6134477   | 0.80   | cps   |
| Thallium   | 205-1 | 14487218  | 14675834  | 14516052  | 14559701  | 0.70   | cps   |
| Tin        | 118-1 | 4920431   | 4949592   | 4973093   | 4947705   | 0.53   | cps   |
| Titanium   | 47-1  | 7068982   | 6917257   | 6769853   | 6918697   | 2.16   | cps   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

CCV038

Instrumnet Name :

P7

Client Sample ID :

CCV038

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 18:33:43

DataFile Name :

046CCV.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 18370371 | 18645676 | 18953198 | 18656415 | 1.56   | cps   |
| Vanadium  | 51-2  | 2086650  | 2074152  | 2074503  | 2078435  | 0.34   | cps   |
| Yttrium   | 89-1  | 12489011 | 12295115 | 12349580 | 12377902 | 0.81   | cps   |
| Yttrium   | 89-2  | 3364733  | 3322119  | 3368873  | 3351908  | 0.77   | cps   |
| Zinc      | 66-2  | 4130508  | 4196038  | 4146043  | 4157530  | 0.82   | cps   |
| Zirconium | 90-1  | 10057875 | 10144047 | 10087349 | 10096424 | 0.43   | cps   |
| Zirconium | 91-1  | 2275509  | 2203961  | 2242981  | 2240817  | 1.60   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : CCB038 Instrumnet Name : P7  
Client Sample ID : CCB038 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:39:43 DataFile Name : 048CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Aluminium  | 27-2  | 263      | 227      | 250      | 247      | 7.52   | cps   |
| Antimony   | 121-1 | 637      | 833      | 793      | 754      | 13.78  | cps   |
| Arsenic    | 75-2  | 7        | 3        | 20       | 10       | 88.20  | cps   |
| Barium     | 135-1 | 113      | 127      | 67       | 102      | 30.82  | cps   |
| Barium     | 137-1 | 170      | 187      | 150      | 169      | 10.87  | cps   |
| Beryllium  | 9-1   | 57       | 90       | 87       | 78       | 23.60  | cps   |
| Bismuth    | 209-1 | 9126499  | 8925705  | 8860501  | 8970901  | 1.55   | cps   |
| Bismuth    | 209-2 | 7220619  | 7166133  | 7361433  | 7249395  | 1.39   | cps   |
| Bromine    | 81-1  | 14180    | 13917    | 13653    | 13917    | 1.89   | cps   |
| Bromine    | 81-2  | 173      | 200      | 173      | 182      | 8.45   | cps   |
| Cadmium    | 108-1 | 20       | 7        | 20       | 16       | 49.47  | cps   |
| Cadmium    | 106-1 | 2990     | 2964     | 3030     | 2995     | 1.12   | cps   |
| Cadmium    | 111-1 | 2131     | 2105     | 2129     | 2122     | 0.68   | cps   |
| Calcium    | 43-1  | 370      | 370      | 323      | 354      | 7.60   | cps   |
| Calcium    | 44-1  | 10120    | 9837     | 9420     | 9792     | 3.60   | cps   |
| Carbon     | 12-1  |          |          |          |          |        | cps   |
| Carbon     | 12-2  |          |          |          |          |        | cps   |
| Chlorine   | 35-1  |          |          |          |          |        | cps   |
| Chlorine   | 35-2  |          |          |          |          |        | cps   |
| Chromium   | 52-2  | 1363     | 1397     | 1330     | 1363     | 2.45   | cps   |
| Cobalt     | 59-2  | 107      | 123      | 80       | 103      | 21.15  | cps   |
| Copper     | 63-2  | 1170     | 1193     | 1243     | 1202     | 3.12   | cps   |
| Dysprosium | 156-1 | 17       | 13       | 20       | 17       | 20.01  | cps   |
| Dysprosium | 156-2 | 10       | 7        | 7        | 8        | 24.71  | cps   |
| Erbium     | 164-1 | 80       | 80       | 67       | 76       | 10.19  | cps   |
| Erbium     | 164-2 | 33       | 43       | 53       | 43       | 23.08  | cps   |
| Gadolinium | 160-1 | 33       | 43       | 30       | 36       | 19.51  | cps   |
| Gadolinium | 160-2 | 457      | 483      | 483      | 474      | 3.25   | cps   |
| Holmium    | 165-1 | 14295096 | 14329294 | 14103646 | 14242679 | 0.85   | cps   |
| Holmium    | 165-2 | 10029330 | 9939810  | 9987201  | 9985447  | 0.45   | cps   |
| Indium     | 115-1 | 11071704 | 11218479 | 11044674 | 11111619 | 0.84   | cps   |
| Indium     | 115-2 | 4110408  | 4093119  | 4151176  | 4118234  | 0.72   | cps   |
| Iron       | 56-2  | 20063    | 19626    | 19299    | 19663    | 1.95   | cps   |
| Iron       | 57-2  | 980      | 840      | 1030     | 950      | 10.37  | cps   |
| Iron       | 54-2  | 2554     | 2557     | 2460     | 2524     | 2.17   | cps   |
| Krypton    | 83-1  | 183      | 220      | 193      | 199      | 9.53   | cps   |

LB Number : LB134060 Operator : Jaswal  
Lab Sample ID : CCB038 Instrumnet Name : P7  
Client Sample ID : CCB038 Dilution Factor : 1  
Date & Time Acquired : 2024-12-21 18:39:43 DataFile Name : 048CCBE.d

| Parameter  | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|------------|-------|----------|----------|----------|----------|--------|-------|
| Lead       | 206-1 | 1760     | 1817     | 1667     | 1748     | 4.33   | cps   |
| Lead       | 207-1 | 1613     | 1463     | 1493     | 1523     | 5.21   | cps   |
| Lead       | 208-1 | 7104     | 6827     | 6564     | 6832     | 3.95   | cps   |
| Lithium    | 6-1   | 1361021  | 1321234  | 1354989  | 1345748  | 1.59   | cps   |
| Magnesium  | 24-2  | 1050     | 940      | 993      | 994      | 5.53   | cps   |
| Manganese  | 55-2  | 457      | 423      | 383      | 421      | 8.72   | cps   |
| Molybdenum | 94-1  | 570      | 630      | 550      | 583      | 7.14   | cps   |
| Molybdenum | 95-1  | 490      | 560      | 463      | 504      | 9.90   | cps   |
| Molybdenum | 96-1  | 660      | 663      | 597      | 640      | 5.87   | cps   |
| Molybdenum | 97-1  | 343      | 383      | 377      | 368      | 5.83   | cps   |
| Molybdenum | 98-1  | 837      | 863      | 753      | 818      | 7.02   | cps   |
| Neodymium  | 150-1 | 10       | 7        | 0        | 6        | 91.64  | cps   |
| Neodymium  | 150-2 | 3        | 0        | 3        | 2        | 86.60  | cps   |
| Nickel     | 60-2  | 383      | 390      | 410      | 394      | 3.52   | cps   |
| Phosphorus | 31-2  | 113      | 120      | 117      | 117      | 2.86   | cps   |
| Potassium  | 39-2  | 54614    | 53022    | 53908    | 53848    | 1.48   | cps   |
| Rhodium    | 103-1 | 10405308 | 10362796 | 10284089 | 10350731 | 0.59   | cps   |
| Rhodium    | 103-2 | 6355396  | 6323165  | 6454770  | 6377777  | 1.08   | cps   |
| Scandium   | 45-1  | 5750042  | 5765332  | 5678473  | 5731282  | 0.81   | cps   |
| Scandium   | 45-2  | 525734   | 516108   | 517196   | 519679   | 1.01   | cps   |
| Selenium   | 82-1  | 355      | 285      | 291      | 310      | 12.54  | cps   |
| Selenium   | 77-2  | 0        | 0        | 0        | 0        | 0.00   | cps   |
| Selenium   | 78-2  | 383      | 397      | 447      | 409      | 8.17   | cps   |
| Silicon    | 28-1  | 551001   | 552175   | 555267   | 552814   | 0.40   | cps   |
| Silver     | 107-1 | 427      | 397      | 357      | 393      | 8.93   | cps   |
| Silver     | 109-1 | 323      | 260      | 327      | 303      | 12.38  | cps   |
| Sodium     | 23-2  | 36841    | 35487    | 35598    | 35975    | 2.09   | cps   |
| Strontium  | 86-1  | 303      | 410      | 297      | 337      | 18.89  | cps   |
| Strontium  | 88-1  | 337      | 390      | 310      | 346      | 11.79  | cps   |
| Sulfur     | 34-1  | 169212   | 171018   | 173121   | 171117   | 1.14   | cps   |
| Terbium    | 159-1 | 14622476 | 14584621 | 14422632 | 14543243 | 0.73   | cps   |
| Terbium    | 159-2 | 9693307  | 9840763  | 9805706  | 9779925  | 0.79   | cps   |
| Thallium   | 203-1 | 730      | 643      | 750      | 708      | 8.01   | cps   |
| Thallium   | 205-1 | 1797     | 1860     | 1827     | 1828     | 1.73   | cps   |
| Tin        | 118-1 | 1443     | 1493     | 1423     | 1453     | 2.48   | cps   |
| Titanium   | 47-1  | 137      | 137      | 147      | 140      | 4.12   | cps   |

LB Number :

LB134060

Operator :

Jaswal

Lab Sample ID :

CCB038

Instrumnet Name :

P7

Client Sample ID :

CCB038

Dilution Factor :

1

Date & Time Acquired :

2024-12-21 18:39:43

DataFile Name :

048CCBE.d

| Parameter | Mass  | CPS1     | CPS2     | CPS3     | CPSMean  | CPSRSD | Units |
|-----------|-------|----------|----------|----------|----------|--------|-------|
| Uranium   | 238-1 | 173      | 173      | 137      | 161      | 13.14  | cps   |
| Vanadium  | 51-2  | 30       | 10       | 17       | 19       | 53.91  | cps   |
| Yttrium   | 89-1  | 12957465 | 12617047 | 12755711 | 12776741 | 1.34   | cps   |
| Yttrium   | 89-2  | 3504392  | 3509967  | 3548244  | 3520868  | 0.68   | cps   |
| Zinc      | 66-2  | 490      | 497      | 500      | 496      | 1.03   | cps   |
| Zirconium | 90-1  | 807      | 820      | 853      | 827      | 2.91   | cps   |
| Zirconium | 91-1  | 133      | 157      | 143      | 144      | 8.10   | cps   |

## Prep Standard - Chemical Standard Summary

**Order ID :** P5249  
**Test :** Metals CLP4 MS  
**Prepbatch ID :** PB165675,  
**Sequence ID/Qc Batch ID:** LB134060,

**Standard ID :**  
MP82128,MP83498,MP83619,MP83620,MP83621,MP83622,MP83623,MP83625,MP83626,MP83627,MP83628,MP83629,MP83630,MP83631,MP83632,MP83633,MP83634,MP83635,MP83636,MP83669,MP83671,

**Chemical ID :**  
M5288,M5289,M5295,M5304,M5390,M5476,M5498,M5513,M5515,M5516,M5519,M5658,M5698,M5739,M5751,M5768,M5769,M5798,M5799,M5800,M5801,M5802,M5806,M5815,M5816,M5817,M5818,M5819,M5820,M5873,M5874,M5961,M5962,M5976,M5978,M5981,M5983,M5993,M5999,M6021,M6023,M6025,M6028,M6030,M6033,M6040,M6055,M6121,M6125,M6126,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> |
|------------------|-------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 641              | 1:4 HCL     | <a href="#">MP82128</a> | 09/03/2024       | 02/08/2025             | Janvi Patel        | None           | None             | Sarabjit Jaswal      |
|                  |             |                         |                  |                        |                    |                |                  | 09/03/2024           |

**FROM** 1500.00000ml of W3112 + 500.00000ml of M6040 = 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> |
|------------------|-------------|-------------------------|------------------|------------------------|--------------------|----------------|------------------|----------------------|
| 169              | 1:1HNO3     | <a href="#">MP83498</a> | 12/09/2024       | 12/28/2024             | Janvi Patel        | None           | None             | Sarabjit Jaswal      |
|                  |             |                         |                  |                        |                    |                |                  | 12/09/2024           |

**FROM** 1250.00000ml of M6126 + 1250.00000ml of W3112 = Final Quantity: 2500.000 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<br>BLANK(S0/ICB/CCB) | <a href="#">MP83619</a> | 12/13/2024       | 01/07/2025             | Sarabjit Jaswal    | None           | METALS_PIP<br>ETTE_3 (A) | Mohan Bera<br>12/17/2024 |
| <b>FROM</b> 25.00000ml of M6121 + 4925.00000ml of W3112 + 50.00000ml of M6126 = 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>     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-------------------------|------------------|------------------------|--------------------|----------------|--------------------------|--------------------------|
| 3947                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | S7(SFAM,6020,200.8) | <a href="#">MP83620</a> | 12/13/2024       | 01/07/2025             | Sarabjit Jaswal    | None           | METALS_PIP<br>ETTE_3 (A) | Mohan Bera<br>12/17/2024 |
| <b>FROM</b> 0.10000ml of M5476 + 1.00000ml of M5799 + 1.00000ml of M5818 + 1.00000ml of M5981 + 1.00000ml of M5983 + 1.90000ml of M6033 + 10.00000ml of M6126 + 2.00000ml of M5815 + 2.00000ml of M5817 + 4.00000ml of M5390 + 4.00000ml of M6025 + 4.90000ml of M5515 + 4.90000ml of M5519 + 5.00000ml of M6121 + 50.00000ml of M5304 + 832.50000ml of W3112 + 9.00000ml of M5698 + 9.00000ml of M5751 + 9.00000ml of M5819 + 9.00000ml of M5976 + 9.00000ml of M5978 + 9.90000ml of M5498 + 9.90000ml of M5769 + 9.90000ml of M5806 = 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>     |
|------------------|---------------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 3948             | S6(SFAM,6020,200.8) | <a href="#">MP83621</a> | 12/13/2024       | 01/07/2025             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>12/17/2024 |

**FROM** 0.50000ml of M6121 + 1.00000ml of M6126 + 48.50000ml of W3112 + 50.00000ml of MP83620 = 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) | <a href="#">MP83622</a> | 12/13/2024       | 01/07/2025             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>12/17/2024 |

**FROM** 0.50000ml of M6121 + 1.00000ml of M6126 + 73.50000ml of W3112 + 25.00000ml of MP83620 = 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) | <a href="#">MP83623</a> | 12/13/2024       | 01/07/2025             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>12/17/2024 |

**FROM** 0.50000ml of M6121 + 1.00000ml of M6126 + 86.00000ml of W3112 + 12.50000ml of MP83620 = 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) | <a href="#">MP83625</a> | 12/13/2024       | 01/07/2025             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>12/17/2024 |

**FROM** 0.50000ml of M6121 + 1.00000ml of M6126 + 88.50000ml of W3112 + 10.00000ml of MP83621 = 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) | <a href="#">MP83626</a> | 12/13/2024       | 01/07/2025             | Sarabjit Jaswal    | None           | None             | Mohan Bera           |
|                  |                         |                         |                  |                        |                    |                |                  | 12/17/2024           |

**FROM** 0.05000ml of M5476 + 0.05000ml of M5698 + 0.05000ml of M5798 + 0.05000ml of M5800 + 0.05000ml of M5801 + 0.05000ml of M5961 + 0.05000ml of M5981 + 0.05000ml of M5983 + 0.05000ml of M6023 + 0.05000ml of M6025 + 0.05000ml of M6028 + 0.05000ml of M6030 + 0.10000ml of M5658 + 0.10000ml of M5751 + 0.10000ml of M5802 + 0.10000ml of M6033 + 0.25000ml of M5515 + 0.25000ml of M5799 + 0.25000ml of M5819 + 0.25000ml of M5962 + 0.25000ml of M5976 + 0.25000ml of M5978 + 0.25000ml of M6021 + 0.50000ml of M5390 + 0.50000ml of M5818 + 1.25000ml of M5815 + 1.25000ml of M5817 + 2.50000ml of M5498 + 2.50000ml of M5519 + 2.50000ml of M5769 + 2.50000ml of M5806 + 2.50000ml of M6121 + 226.25000ml of W3112 + 5.00000ml of M6126 = 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) | <a href="#">MP83627</a> | 12/13/2024       | 01/07/2025             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera           |
|                  |                     |                         |                  |                        |                    |                |                      | 12/17/2024           |

**FROM** 0.50000ml of M6121 + 1.00000ml of M6126 + 98.00000ml of W3112 + 0.50000ml of MP83626 = 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) | <a href="#">MP83628</a> | 12/13/2024       | 01/07/2025             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>12/17/2024 |

**FROM** 0.50000ml of M6121 + 1.00000ml of M6126 + 88.50000ml of W3112 + 10.00000ml of MP83627 = 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>     |
|------------------|-------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 3958             | ICV(SFAM)   | <a href="#">MP83629</a> | 12/13/2024       | 01/07/2025             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>12/17/2024 |

**FROM** 2.00000ml of M5295 + 98.00000ml of MP83619 = 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>     |
|------------------|-------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 1142             | ICSA ICPMS  | <a href="#">MP83630</a> | 12/13/2024       | 01/07/2025             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>12/17/2024 |

**FROM** 10.00000ml of M5873 + 90.00000ml of MP83619 = 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>     |
|------------------|-------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 1143             | ICSAB ICPMS | <a href="#">MP83631</a> | 12/13/2024       | 01/07/2025             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>12/17/2024 |

**FROM** 10.00000ml of M5873 + 10.00000ml of M5874 + 80.00000ml of MP83619 = 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         | <a href="#">MP83632</a> | 12/13/2024       | 01/07/2025             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>12/17/2024 |
| <b>FROM</b> 0.20000ml of M5513 + 0.50000ml of M5476 + 0.50000ml of M5799 + 0.50000ml of M5818 + 0.50000ml of M5981 + 0.50000ml of M5983 + 1.00000ml of M5815 + 1.00000ml of M5817 + 10.00000ml of M6126 + 12.45000ml of M5515 + 12.45000ml of M5519 + 2.00000ml of M5390 + 24.95000ml of M5498 + 24.95000ml of M5516 + 24.95000ml of M5769 + 25.00000ml of M5304 + 4.50000ml of M5698 + 4.50000ml of M5751 + 4.50000ml of M5819 + 4.50000ml of M5976 + 4.50000ml of M5978 + 4.95000ml of M6033 + 5.00000ml of M6121 + 826.10000ml 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>     |
|------------------------------------------------------------------------------------|-------------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 3962                                                                               | MG 10PPM FOR TUNE | <a href="#">MP83633</a> | 12/13/2024       | 01/07/2025             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>12/17/2024 |
| <b>FROM</b> 0.01000ml of M5769 + 9.99000ml of MP83619 = 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 | <a href="#">MP83634</a> | 12/13/2024       | 01/07/2025             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>12/17/2024 |

**FROM** 2.00000ml of M6055 + 2.00000ml of MP83633 + 96.00000ml of MP83619 = 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    | <a href="#">MP83635</a> | 12/13/2024       | 01/07/2025             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>12/17/2024 |

**FROM** 5.00000ml of M6126 + 75.00000ml of M5739 + 170.00000ml of MP83619 = 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>     |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 2902                                                                                                                                                                                         | S8 ICPMS    | <a href="#">MP83636</a> | 12/13/2024       | 01/07/2025             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>12/17/2024 |
| <b>FROM</b> 1.00000ml of M6033 + 2.50000ml of M5288 + 2.50000ml of M5515 + 5.00000ml of M5498 + 5.00000ml of M5516 + 5.00000ml of M5769 + 79.00000ml of MP83619 = 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>     |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 3964                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | CONC.LCSS SPIKE | <a href="#">MP83669</a> | 12/13/2024       | 01/07/2025             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>12/17/2024 |
| <b>FROM</b> 0.25000ml of M5476 + 0.25000ml of M5698 + 0.25000ml of M5798 + 0.25000ml of M5800 + 0.25000ml of M5801 + 0.25000ml of M5961 + 0.25000ml of M5981 + 0.25000ml of M5983 + 0.25000ml of M6023 + 0.25000ml of M6025 + 0.25000ml of M6028 + 0.25000ml of M6030 + 0.50000ml of M5289 + 0.50000ml of M5658 + 0.50000ml of M5751 + 0.50000ml of M5802 + 1.25000ml of M5799 + 1.25000ml of M5819 + 1.25000ml of M5962 + 1.25000ml of M5976 + 1.25000ml of M5978 + 1.25000ml of M6021 + 10.00000ml of M6126 + 12.50000ml of M5498 + 12.50000ml of M5519 + 12.50000ml of M5768 + 12.50000ml of M5806 + 150.00000ml of W3112 + 2.50000ml of M5390 + 2.50000ml of M5818 + 5.00000ml of M5515 + 5.00000ml of M6121 + 6.25000ml of M5816 + 6.25000ml of M5820 = 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>     |
|------------------------------------------------------------------------------------------------------------------------------|-------------------|-------------------------|------------------|------------------------|--------------------|----------------|----------------------|--------------------------|
| 870                                                                                                                          | ICPMS SPIKE SOL.B | <a href="#">MP83671</a> | 12/13/2024       | 01/07/2025             | Sarabjit Jaswal    | None           | METALS_PIPETTE_3 (A) | Mohan Bera<br>12/17/2024 |
| <b>FROM</b> 0.45000ml of M5962 + 5.00000ml of M5993 + 5.00000ml of M5999 + 39.55000ml of MP83619 = Final Quantity: 50.000 ml |                   |                         |                  |                        |                    |                |                      |                          |

### CHEMICAL RECEIPT LOG BOOK

| Supplier                 | ItemCode / ItemName          | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 58119 / K, 10000 PPM, 500 ml | 071122 | 07/11/2025      | 09/01/2022 / jaswal     | 07/21/2022 / jaswal         | M5288          |

| Supplier                 | ItemCode / ItemName             | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|---------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 58113 / Aluminum (Al) 10,000PPM | 070622 | 07/06/2025      | 09/02/2022 / jaswal     | 07/12/2022 / jaswal         | M5289          |

| Supplier | ItemCode / ItemName                  | Lot #    | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|--------------------------------------|----------|-----------------|-------------------------|-----------------------------|----------------|
| EPA      | ICV-1 / ICV ( ICP/ICPMS ) STOCK SOLN | ICV-1014 | 02/05/2025      | 08/07/2024 / jaswal     | 04/20/2021 / bin            | M5295          |

| Supplier           | ItemCode / ItemName                          | Lot #        | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------|----------------------------------------------|--------------|-----------------|-------------------------|-----------------------------|----------------|
| Inorganic Ventures | 6020CAL-1 / Calibration Standard Method 6020 | S2-MEB711244 | 10/20/2026      | 08/07/2024 / jaswal     | 04/01/2022 / jaswal         | M5304          |

| Supplier                 | ItemCode / ItemName          | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57056 / Ba, 1000 PPM, 125 ml | 072122 | 07/21/2025      | 08/07/2024 / jaswal     | 09/18/2022 / bin            | M5390          |

| Supplier                 | ItemCode / ItemName           | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57138 / Sr, 10000 PPM, 125 ml | 082922 | 08/29/2025      | 07/29/2024 / Jaswal     | 03/16/2023 / jaswal         | M5476          |

## CHEMICAL RECEIPT LOG BOOK

| Supplier                 | ItemCode / ItemName           | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 58120 / Ca, 10000 PPM, 500 ml | 031523 | 03/15/2026      | 08/15/2023 / jaswal     | 03/17/2023 / bin            | M5498          |

| 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 | 061522 | 06/15/2025      | 03/19/2023 / bin        | 03/17/2023 / bin            | M5513          |

| Supplier                 | ItemCode / ItemName           | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 58126 / Fe, 10000 PPM, 500 ml | 092122 | 09/21/2025      | 08/01/2024 / Jaswal     | 03/17/2023 / bin            | M5515          |

| Supplier                 | ItemCode / ItemName           | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 58111 / Na, 10000 PPM, 500 ml | 022123 | 11/06/2025      | 11/06/2024 / kareem     | 03/17/2023 / bin            | M5516          |

| Supplier                 | ItemCode / ItemName             | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|---------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57119 / Potassium (K) 10,000PPM | 120822 | 12/08/2025      | 01/08/2024 / bin        | 03/17/2023 / bin            | M5519          |

| 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          |

## CHEMICAL RECEIPT LOG BOOK

| Supplier                 | ItemCode / ItemName          | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 58025 / Mn, 1000 PPM, 500 ml | 102623 | 10/26/2026      | 04/18/2024 / jaswal     | 10/27/2023 / jaswal         | M5698          |

| Supplier           | ItemCode / ItemName                                         | Lot #        | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------|-------------------------------------------------------------|--------------|-----------------|-------------------------|-----------------------------|----------------|
| 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. | 58112 / Mg, 10000 PPM, 500 ml | 091823 | 09/18/2026      | 01/08/2024 / bin        | 01/03/2024 / bin            | M5768          |

| Supplier                 | ItemCode / ItemName           | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 58112 / Mg, 10000 PPM, 500 ml | 091823 | 09/18/2026      | 05/24/2024 / Jaswal     | 01/03/2024 / bin            | M5769          |

| 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          |

## CHEMICAL RECEIPT LOG BOOK

| Supplier                 | ItemCode / ItemName          | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57050 / Sn, 1000 PPM, 125 ml | 071123 | 07/11/2026      | 02/09/2024 / bin        | 02/09/2024 / bin            | M5799          |

| Supplier                 | ItemCode / ItemName          | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57027 / CO, 1000 PPM, 125 ml | 091923 | 09/19/2026      | 05/31/2024 / bin        | 02/09/2024 / bin            | M5800          |

| Supplier                 | ItemCode / ItemName          | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57033 / As, 1000 PPM, 125 ml | 111323 | 11/13/2026      | 02/09/2024 / bin        | 02/09/2024 / bin            | M5801          |

| Supplier                 | ItemCode / ItemName          | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57051 / Sb, 1000 PPM, 125 ml | 120523 | 12/05/2026      | 08/07/2024 / jaswal     | 01/03/2024 / jaswal         | M5802          |

| Supplier                 | ItemCode / ItemName           | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 58111 / Na, 10000 PPM, 500 ml | 122223 | 12/22/2026      | 08/01/2024 / Jaswal     | 01/03/2024 / jaswal         | M5806          |

| Supplier                 | ItemCode / ItemName          | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57115 / P, 10000 PPM, 125 ml | 041723 | 04/17/2026      | 05/21/2024 / Jaswal     | 02/09/2024 / jaswal         | M5815          |

## CHEMICAL RECEIPT LOG BOOK

| Supplier                 | ItemCode / ItemName         | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-----------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57016 / S, 1000 PPM, 125 ml | 122923 | 12/29/2026      | 05/20/2024 / Jaswal     | 02/09/2024 / jaswal         | M5816          |

| Supplier                 | ItemCode / ItemName          | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57116 / S, 10000 PPM, 125 ml | 071123 | 07/11/2026      | 03/01/2024 / jaswal     | 02/09/2024 / jaswal         | M5817          |

| Supplier                 | ItemCode / ItemName          | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57014 / Si, 1000 PPM, 125 ml | 122023 | 12/20/2026      | 03/06/2024 / jaswal     | 02/09/2024 / jaswal         | M5818          |

| Supplier                 | ItemCode / ItemName                | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 58030 / Zinc, Zn, 500 ml, 1000 PPM | 111623 | 11/16/2026      | 03/20/2024 / jaswal     | 02/09/2024 / jaswal         | M5819          |

| Supplier                 | ItemCode / ItemName         | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-----------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57015 / P, 1000 PPM, 125 ml | 091123 | 09/11/2026      | 05/01/2024 / jaswal     | 02/09/2024 / jaswal         | M5820          |

| Supplier | ItemCode / ItemName                | Lot #           | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|------------------------------------|-----------------|-----------------|-------------------------|-----------------------------|----------------|
| EPA      | PART A / ICSA ( ICPMS ) STOCK SOLN | CP-MS ICSA-0803 | 04/30/2025      | 04/17/2024 / jaswal     | 07/14/2022 / jaswal         | M5873          |

### CHEMICAL RECEIPT LOG BOOK

| Supplier | ItemCode / ItemName                     | Lot #           | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|----------|-----------------------------------------|-----------------|-----------------|-------------------------|-----------------------------|----------------|
| EPA      | PART B / ICSB (ICPMS)<br>STOCK SOLUTION | CP-MS ICSB-0803 | 04/30/2025      | 04/17/2024 /<br>jaswal  | 07/14/2022 /<br>jaswal      | M5874          |

| 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 /<br>Jaswal  | 06/11/2024 /<br>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 /<br>Jaswal  | 06/14/2024 /<br>Jaswal      | M5962          |

| Supplier           | ItemCode / ItemName                        | Lot #       | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------|--------------------------------------------|-------------|-----------------|-------------------------|-----------------------------|----------------|
| Inorganic Ventures | CGMO1-1 /<br>MOLYBDENUM 125mL<br>1000ug/mL | T2-MO720876 | 07/17/2027      | 08/07/2024 /<br>jaswal  | 02/22/2024 /<br>Jaswal      | M5976          |

| Supplier           | ItemCode / ItemName                   | Lot #       | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------|---------------------------------------|-------------|-----------------|-------------------------|-----------------------------|----------------|
| Inorganic Ventures | CGTI1-1 / TITANIUM<br>125mL 1000ug/mL | T2-TI719972 | 06/17/2027      | 08/07/2024 /<br>jaswal  | 02/22/2024 /<br>Jaswal      | M5978          |

| Supplier                 | ItemCode / ItemName         | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|-----------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57092 / U, 1000 PPM, 125 ml | 060724 | 06/07/2027      | 07/29/2024 /<br>Jaswal  | 06/11/2024 /<br>Jaswal      | M5981          |

## CHEMICAL RECEIPT LOG BOOK

| Supplier                 | ItemCode / ItemName          | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------------|------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| Absolute Standards, Inc. | 57040 / Zr, 1000 PPM, 125 ml | 071423 | 07/14/2026      | 07/29/2024 / Jaswal     | 06/11/2024 / Jaswal         | M5983          |

| Supplier           | ItemCode / ItemName                         | Lot #        | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------|---------------------------------------------|--------------|-----------------|-------------------------|-----------------------------|----------------|
| Inorganic Ventures | CLPP-SPK-4 / SOIL/WATER SPIKE SOLN 4, 125mL | V2-MEB742036 | 03/12/2029      | 10/04/2024 / Jaswal     | 02/22/2024 / Jaswal         | M5993          |

| Supplier           | ItemCode / ItemName                         | Lot #        | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|--------------------|---------------------------------------------|--------------|-----------------|-------------------------|-----------------------------|----------------|
| Inorganic Ventures | CLPP-SPK-1 / SOIL/WATER SPIKE SOLN 1, 125mL | T2-MEB721963 | 07/27/2027      | 09/04/2024 / Jaswal     | 02/22/2024 / kareem         | M5999          |

| 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          |

### 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. | 58113 / Al, 10000 PPM, 500 ml | 011623 | 01/16/2026      | 08/07/2024 / Jaswal     | 01/03/2024 / Jaswal         | M6033          |

| Supplier         | ItemCode / ItemName                                         | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|-------------------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L) | 24D1562005 | 02/08/2025      | 08/09/2024 / Janvi      | 08/01/2024 / Janvi          | M6040          |

| 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 # |
|------------------|-------------------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9530-33 / Hydrochloric Acid, Instra-Analyzed (cs/6x2.5L) | 0000275677 | 05/13/2025      | 11/13/2024 / Eman       | 10/13/2024 / Eman           | M6121          |

### CHEMICAL RECEIPT LOG BOOK

| Supplier                    | ItemCode / ItemName                 | Lot #  | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|-----------------------------|-------------------------------------|--------|-----------------|-------------------------|-----------------------------|----------------|
| PCI Scientific Supply, Inc. | 1403 / Hydrogen Peroxide, 30% 1 gal | 820803 | 05/25/2025      | 11/26/2024 / Eman       | 11/22/2024 / Eman           | M6125          |

| Supplier         | ItemCode / ItemName                                   | Lot #      | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|-------------------------------------------------------|------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | BA-9598-34 / Nitric Acid, Instra-Analyzed (cs/4x2.5L) | 24D1062002 | 06/03/2025      | 12/03/2024 / Janvi      | 11/12/2024 / Janvi          | M6126          |

| Supplier         | ItemCode / ItemName | Lot #               | Expiration Date | Date Opened / Opened By | Received Date / Received By | Chemtech Lot # |
|------------------|---------------------|---------------------|-----------------|-------------------------|-----------------------------|----------------|
| Seidler Chemical | DIW / DI Water      | Daily Lab-Certified | 07/03/2029      | 07/03/2024 / Iwona      | 07/03/2024 / Iwona          | W3112          |



Refine your results. Redefine your industry.

300 Technology Drive  
Christiansburg, VA 24073 USA  
inorganicventures.com

# Certificate of Analysis

R: 02/22/24 M5991 M5992 M5993 M5994 M5995

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: CLPP-SPK-4  
Lot Number: V2-MEB742036  
Matrix: 3% (v/v) HNO<sub>3</sub>  
Value / Analyte(s):  
100 µg/mL ea:  
Antimony,  
50 µg/mL ea:  
Cadmium, Thallium,  
40 µg/mL ea:  
Arsenic,  
20 µg/mL ea:  
Lead,  
10 µg/mL ea:  
Selenium

## 3.0 CERTIFIED VALUES AND UNCERTAINTIES

| ANALYTE      | CERTIFIED VALUE    | ANALYTE      | CERTIFIED VALUE    |
|--------------|--------------------|--------------|--------------------|
| Antimony, Sb | 100.0 ± 0.7 µg/mL  | Arsenic, As  | 40.00 ± 0.26 µg/mL |
| Cadmium, Cd  | 50.00 ± 0.22 µg/mL | Lead, Pb     | 20.00 ± 0.09 µg/mL |
| Selenium, Se | 10.00 ± 0.04 µg/mL | Thallium, Tl | 50.00 ± 0.22 µg/mL |

Density: 1.016 g/mL (measured at 20 ± 4 °C)

Assay Information:

| ANALYTE | METHOD     | NIST SRM# | SRM LOT#     |
|---------|------------|-----------|--------------|
| As      | ICP Assay  | 3103a     | 100818       |
| Cd      | ICP Assay  | 3108      | 130116       |
| Cd      | EDTA       | 928       | 928          |
| Cd      | Calculated |           | See Sec. 4.2 |
| Pb      | ICP Assay  | 3128      | 101026       |
| Pb      | EDTA       | 928       | 928          |
| Pb      | Calculated |           | See Sec. 4.2 |
| Sb      | ICP Assay  | 3102a     | 140911       |
| Se      | ICP Assay  | 3149      | 100901       |
| Se      | Calculated |           | See Sec. 4.2 |
| Tl      | ICP Assay  | 3158      | 151215       |
| Tl      | 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:

$$w_i = (1/u_{\text{char } i}^2) / (\sum (1/u_{\text{char } i}^2))$$

$$\text{CRM/RM Expanded Uncertainty (k)} = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{ITS}}^2 + u_{\text{TS}}^2)^{1/2}$$

$k$  = 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

$u_{\text{bb}}$  = bottle to bottle homogeneity standard uncertainty

$u_{\text{ITS}}$  = long term stability standard uncertainty (storage)

$u_{\text{TS}}$  = 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

$$\text{CRM/RM Expanded Uncertainty (k)} = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{ITS}}^2 + u_{\text{TS}}^2)^{1/2}$$

$k$  = coverage factor = 2

$u_{\text{char } a}$  = the errors from characterization

$u_{\text{bb}}$  = bottle to bottle homogeneity standard uncertainty

$u_{\text{ITS}}$  = long term stability standard uncertainty (storage)

$u_{\text{TS}}$  = 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](http://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](http://inorganicventures.com); [Info@inorganicventures.com](mailto:Info@inorganicventures.com)

## **11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY**

### 11.1 Certification Issue Date

March 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

- **March 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 WEIGHT REPORT:**

Part Number:  
Lot Number:  
Description:

57048  
070124  
Cadmium (Cd)

Solvent: 24002546 Nitric Acid

Lot #

*Aleah O'Brady*  
Formulated By: Aleah O'Brady 070124

Expiration Date:

070127

2%

40.0 (mL) Nitric Acid

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL):

1000

NIST Test Number:

6UTB

SE-05 Balance Uncertainty

Weight shown below was diluted to (mL):

2000.07

0.100 Flask Uncertainty

*Pedro L. Rentas*  
Reviewed By: Pedro L. Rentas 070124

**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

1. Cadmium nitrate tetrahydrate (Cd)

IN024 CDM09221A1

1000

99.999

0.10

36.5

5.4797

5.4804

1000.1

2.0

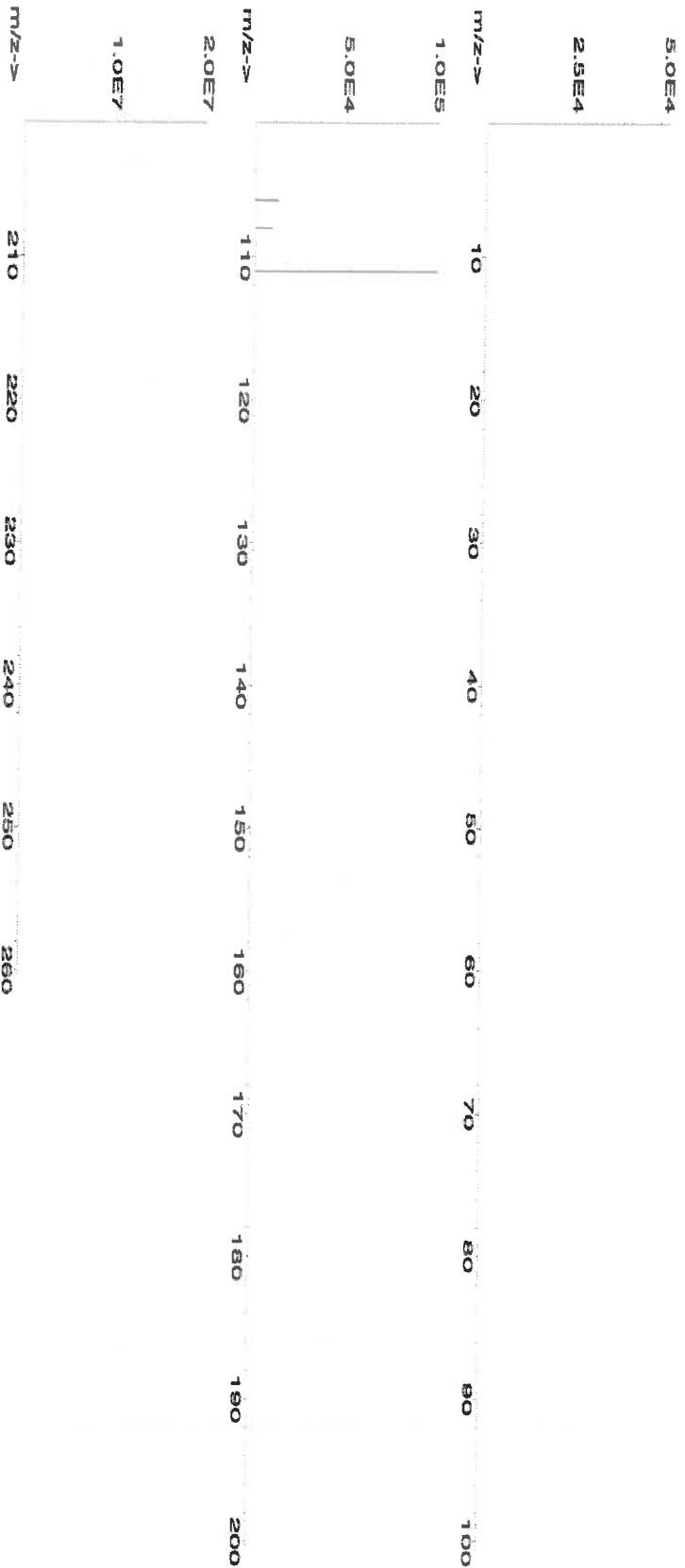
10022-68-1

0.01 mg/m3

or rat 60.2mg/kg

3108

[1] Spectrum No.1 [12.514 sec]:\$8148.D# [Count] [Linear]





**Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):**

302

**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:**

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).



**Certified Reference Material CRM**



**CERTIFIED WEIGHT REPORT:**

Part Number: **57182**  
Lot Number: **110923**  
Description: **Lead (Pb)**

Solvent: **24002546 Nitric Acid**

R: **8/5/24**

M6025

Expiration Date: **110926**  
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** 5E-05 Balance Uncertainty  
0.058 Flask Uncertainty

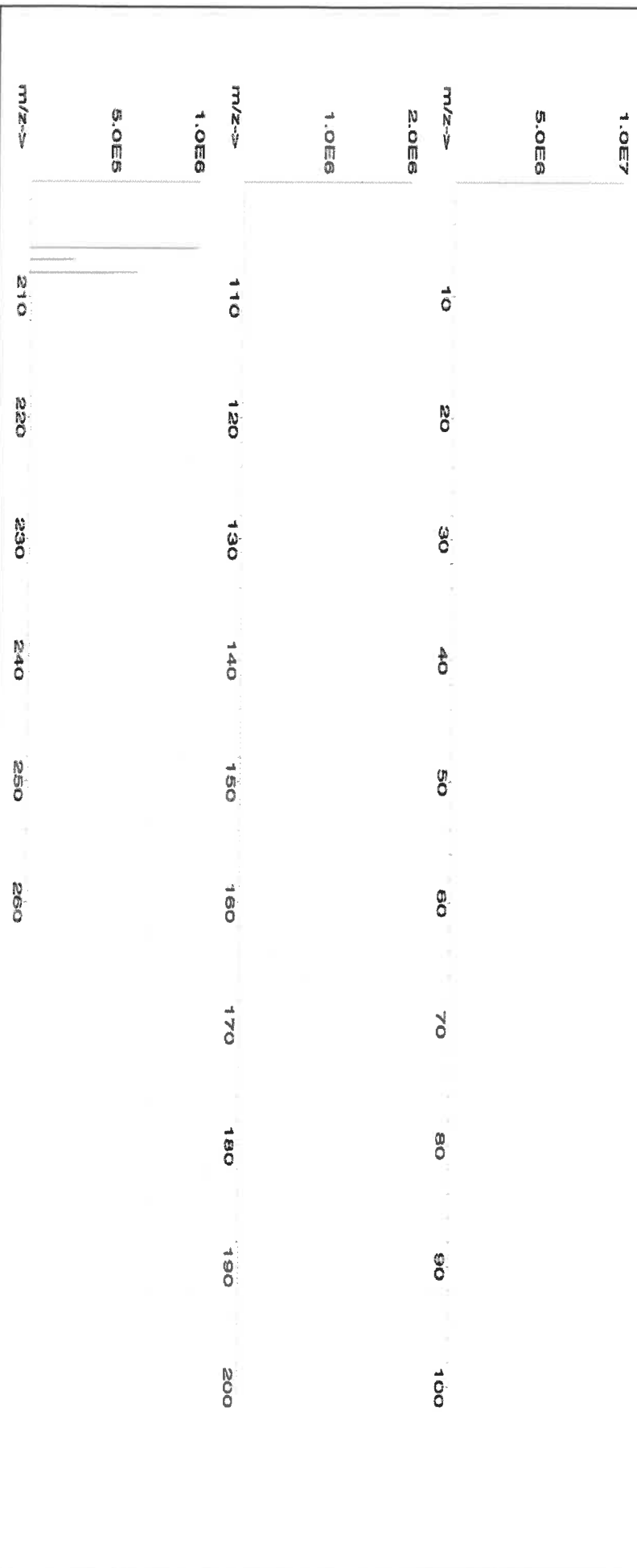
|                |                 |
|----------------|-----------------|
|                |                 |
| Formulated By: | Lawrence Barry  |
|                |                 |
| Reviewed By:   | Pedro L. Rentas |

**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 |
|-----|------------|-----------------------|------------|------------------------|-----------|-------------------|-------------------|----------------------|----------------------------------|------|----------------|------|----------|
|-----|------------|-----------------------|------------|------------------------|-----------|-------------------|-------------------|----------------------|----------------------------------|------|----------------|------|----------|

1. Lead(II) nitrate (Pb) IN029 PED122016A1 10000 99.999 0.10 62.5 32.0006 32.0040 10001.1 20.0 10099-74-8 0.05 mg/m3 Inverse rat 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):**

304

**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 | T     | 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).



## Certified Reference Material CRM



## CERTIFIED WEIGHT REPORT:

Part Number:  
Lot Number:  
Description:

58119  
071122  
Potassium (K)

Expiration Date:

Recommended Storage:

Nominal Concentration (µg/mL):

NIST Test Number:

Weight shown below was diluted to (mL):

Lot #

Solvent: 20510011 Nitric Acid

2%

40.0 Nitric Acid  
(mL)

5E-05 Balance Uncertainty

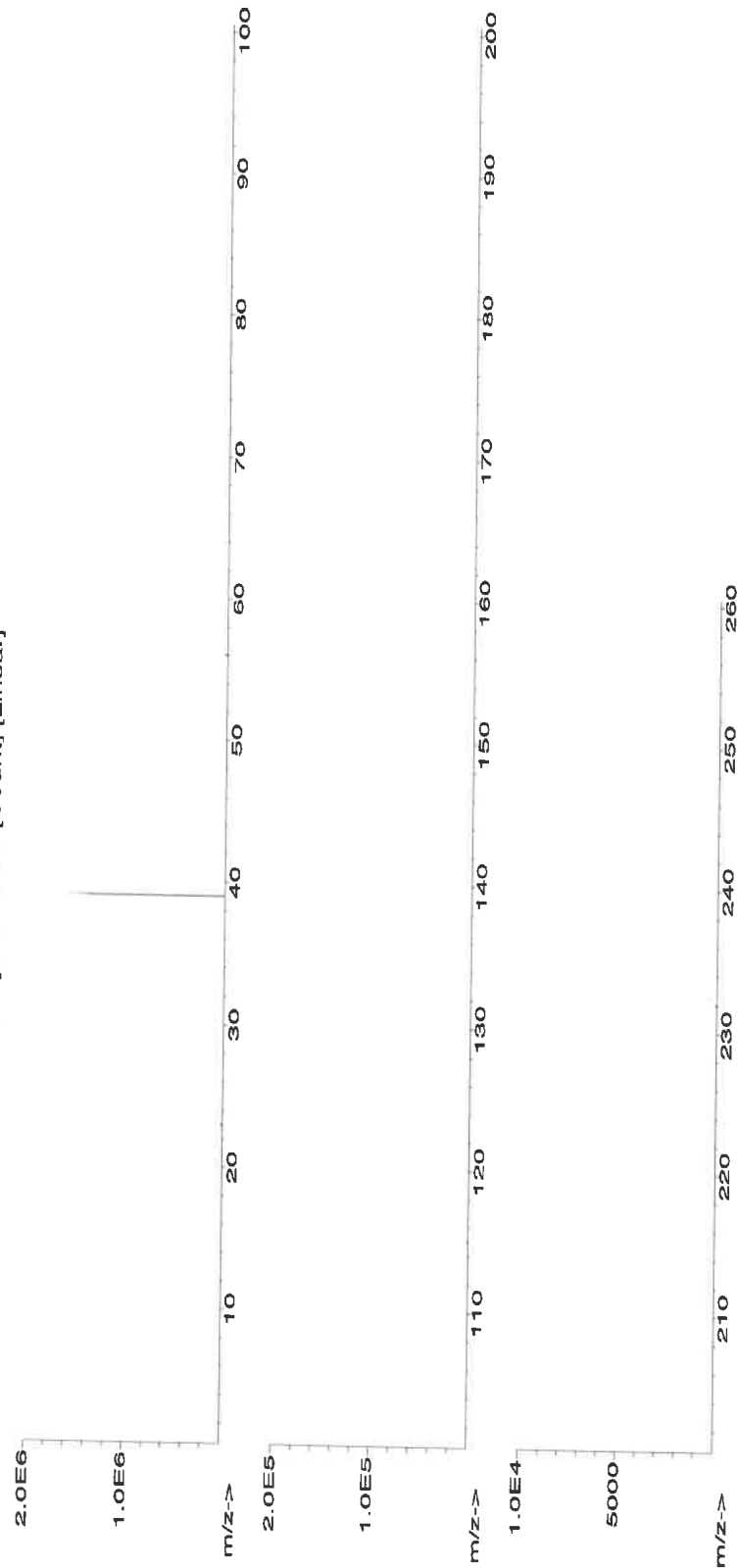
0.058 Flask Uncertainty

| 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#      | (Solvent Safety Info. On Attached pg.) | LD50               | NIST SRM |
|--------------------------|-------|------------|-----------------------|------------|-----------------|-----------|-------------------|-------------------|----------------------|----------------------------------|-----------|----------------------------------------|--------------------|----------|
| 1. Potassium nitrate (K) | IN034 | KD022021A1 | 10000                 | 99.999     | 0.10            | 37.6      | 53.1925           | 53.1934           | 10000.2              | 20.0                             | 7757-79-1 | 5 mg/m3                                | orl-rat 3015 mg/kg | 3141a    |

## SDS Information

|                |                 |        |
|----------------|-----------------|--------|
| Formulated By: | Lawrence Barry  | 071122 |
| Reviewed By:   | Pedro L. Rentas | 071122 |

[1] Spectrum No.1 [ 35.763 sec]:58119.D# [Count] [Linear]



305



**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 | <0.02 | 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 | <0.02 | 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  | <0.02 | 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).



M5289 R: 07/12/22  
Certified Reference Material CRM

(34)



ANAB ISO 17034 Accredited  
AR-1539 Certificate Number  
https://AbsoluteStandards.com

**CERTIFIED WEIGHT REPORT:**

**Part Number:** 58113  
**Lot Number:** 070622  
**Description:** Aluminum (Al)

**Solvent:** 20370011 Nitric Acid  
**Lot #**

**Expiration Date:** 070625  
**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**

**2%**  
**40.0 (mL)**  
**Nitric Acid**

|                |                   |
|----------------|-------------------|
|                |                   |
| Formulated By: | Lawrence Barry    |
|                | 070622            |
|                |                   |
| Reviewed By:   | Pedro L. Renteria |
|                | 070622            |

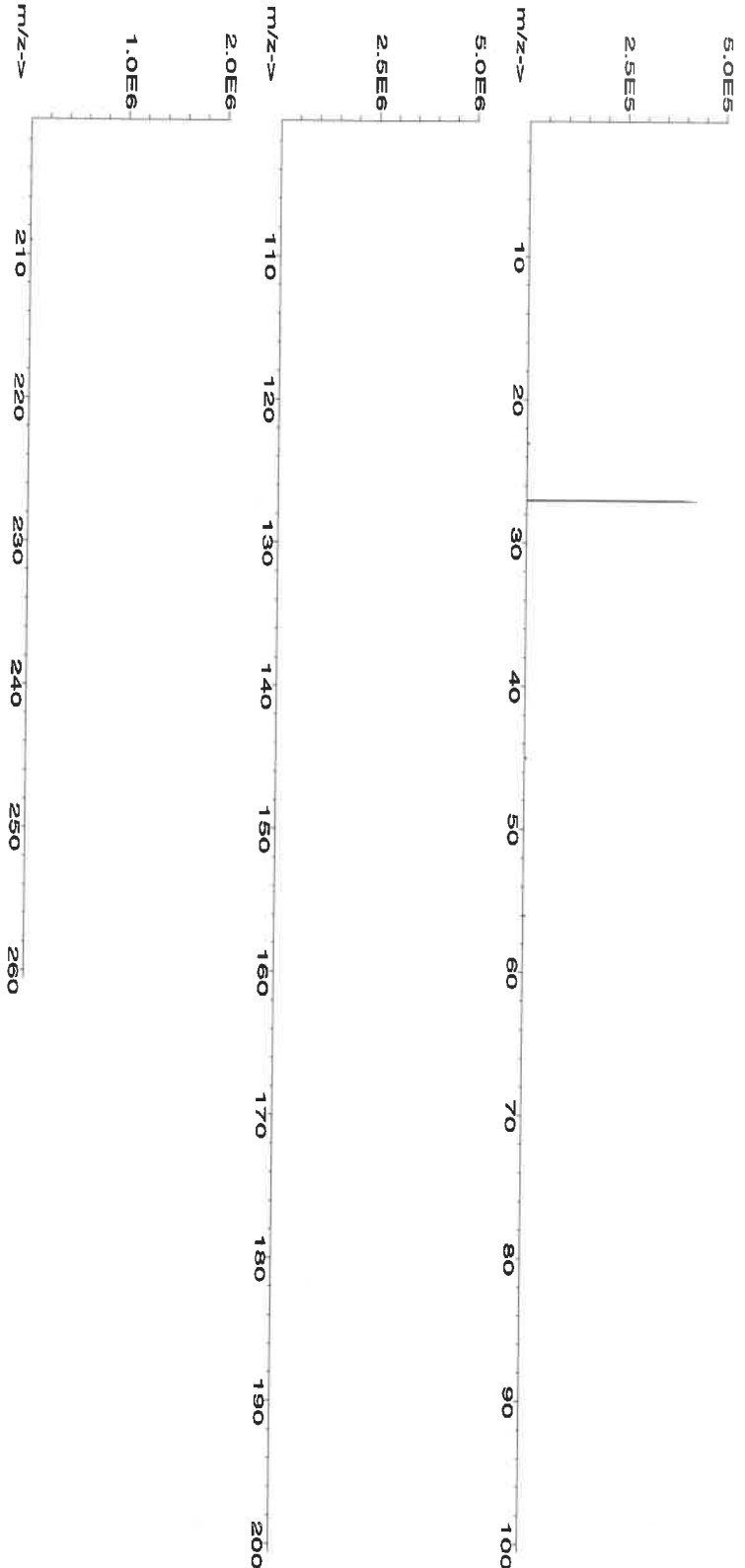
**Compound**

| RM# | Lot Number | Nominal Conc. (µg/mL) | Purity (%) | Uncertainty Purity (%) | Assay (%) | Target Weight (g) | Actual Weight (g) | Actual Conc. (µg/mL) | Expanded Uncertainty +/- (µg/mL) | CAS# | OSHA PEL (TWA) | LD50 | NIST SRM |
|-----|------------|-----------------------|------------|------------------------|-----------|-------------------|-------------------|----------------------|----------------------------------|------|----------------|------|----------|
|-----|------------|-----------------------|------------|------------------------|-----------|-------------------|-------------------|----------------------|----------------------------------|------|----------------|------|----------|

**SDS Information**

1. Aluminum nitrate nonahydrate (Al) IN022 ALD012021A1 10000 99.999 0.10 7.10 281.6956 281.6977 10000.1 20.0 7784-27-2 2 mg/m3 or-tal 3671 mg/kg 3101a

[1] Spectrum No. 1 [15.014 sec]:58113.D# [Count] [Linear]





**Instrumental Analysis by Inductively Coupled Plasma Mass Spectroscopy (ICP-MS):**

**Trace Metals Verification by ICP-MS (µg/mL)**

|    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |
|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|
| Al | T     | 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).



R: 4/20/21

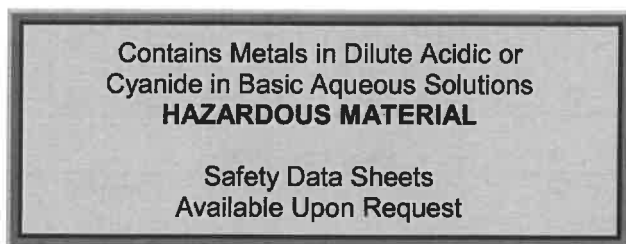
Instructions for QATS Reference Material: *Inorganic ICV Solutions*

QATS LABORATORY INORGANIC REFERENCE MATERIAL  
INITIAL CALIBRATION VERIFICATION SOLUTIONS  
(ICV1, ICV5, AND ICV6)

**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.



M5291  
M15292  
M15293  
M15294  
M15295

(A) **SAMPLE DESCRIPTION**

Enclosed is a set of one (1) or more Aqueous Inorganic Reference Materials containing various analyte concentrations. ICV1 and ICV5 are in a matrix of dilute nitric acid. ICV6 is in a matrix of dilute basic solution. **For the reference material source in reporting ICVs use "USEPA". For the reference material lot number for the ICV1, ICV5, and ICV6 solutions use "ICV1-1014", "ICV5-0415", and "ICV6-0400", respectively.**

(B) **BREAKAGE OR MISSING ITEMS**

Check the contents of the shipment carefully for any broken, leaking, or missing items. Check that the seal is intact on each bottle. Refer to the enclosed chain of custody record. Report any problems to Mr. Keith Strout, APTIM Federal Services, LLC, at (702) 895-8722. If requested, return the chain-of-custody record with appropriate annotations and signatures to the address provided below.

QUALITY ASSURANCE TECHNICAL SUPPORT LABORATORY  
APTIM Federal Services, LLC  
2700 Chandler Avenue - Building C  
Las Vegas, NV 89120

(C) **ANALYSIS OF SAMPLES**

The Initial Calibration Verification Solutions (ICVs) are to be used to evaluate the accuracy of the initial calibrations of ICP, AA, and Cyanide colorimetric instruments, and are to be used with the CLP SOWs and revisions. The values for each element in the ICVs are listed below in µg/L (ppb) for the resulting solution(s) after the dilution of the concentrate(s) according to the following instructions. Use Class 'A' glassware to prepare the solution(s).

**ICV1-1014** For ICP-AES analysis, use a 10-fold dilution by pipetting 10 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid.





Instructions for QATS Reference Material: *Inorganic ICV Solutions*

- ICV1-1014** For ICP-MS analysis, use a 50-fold dilution by pipetting 2 mL of the ICV1 concentrate into a 100 mL volumetric flask and dilute to volume with 1% (v/v) nitric acid.
- ICV5-0415** For the cold vapor analysis of mercury by AA, use a 100-fold dilution by pipetting 1 mL of the ICV5 concentrate into a 100 mL volumetric flask and dilute to volume with 2% (v/v) nitric acid. The ICV5 concentrate is prepared in 0.05% (w/v)  $K_2Cr_2O_7$  and 5% (v/v) nitric acid.
- ICV6-0400** For the analysis of cyanide, use a 100-fold dilution by pipetting 1 mL of the ICV6 concentrate into a 100 mL volumetric flask and dilute to volume with Type II water. Distill this solution along with the samples before analysis. The cyanide concentrate is prepared from  $K_3Fe(CN)_6$ , Type II water, and 0.1 % sodium hydroxide, and will decompose rapidly if exposed to light.

NOTE: USE TYPE II WATER AND HIGH-PURITY ACIDS FOR ALL DILUTIONS.

(D) CERTIFIED CONCENTRATIONS OF QATS ICV1, ICV5, AND ICV6 SOLUTIONS

| ICV1-1014 |                                                  |                                                  |
|-----------|--------------------------------------------------|--------------------------------------------------|
| Element   | Concentration (µg/L)<br>(after 10-fold dilution) | Concentration (µg/L)<br>(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)<br>(after 100-fold dilution) | Analyte         | Concentration (µg/L)<br>(after 100-fold dilution) |
| Hg        | 4.0                                               | CN <sup>-</sup> | 99                                                |



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) HNO<sub>3</sub>  
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

$u_{\text{bb}}$  = bottle to bottle homogeneity standard uncertainty

$u_{\text{Its}}$  = long term stability standard uncertainty (storage)

$u_{\text{ts}}$  = 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

$u_{\text{bb}}$  = bottle to bottle homogeneity standard uncertainty

$u_{\text{Its}}$  = long term stability standard uncertainty (storage)

$u_{\text{ts}}$  = 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](http://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





*R-09/18/22* (RH)  
**Certified Reference Material CRM**

**CERTIFIED WEIGHT REPORT:**

**Part Number:** 57056  
**Lot Number:** 072122  
**Description:** Barium (Ba)

**Solvent:** 20510011 Nitric Acid

*M5387 - M5389 - M5390 - M5391 - M5392*



**Expiration Date:** 072125  
**Recommended Storage:** Ambient (20 °C)  
**Nominal Concentration (µg/mL):** 1000  
**NIST Test Number:** 6UTB

**2%** 40.0 (mL) Nitric Acid

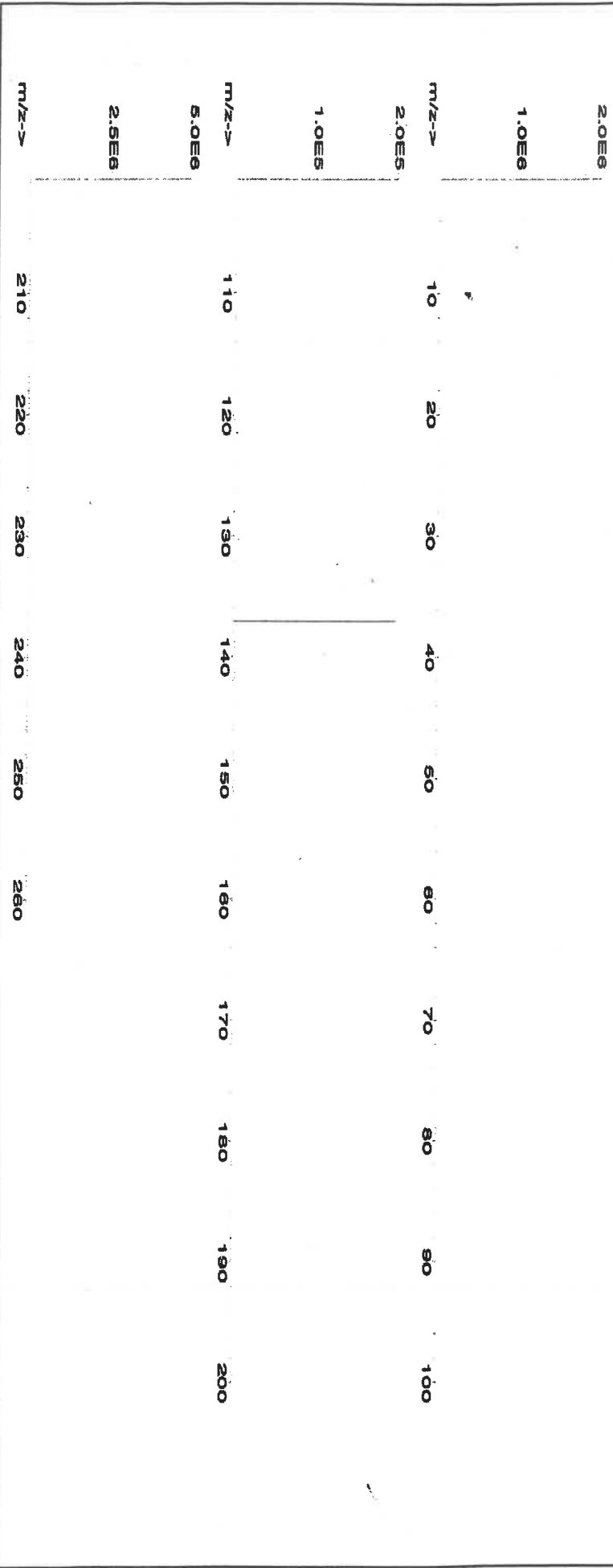
**Weight shown below was diluted to (mL):** 2000.02 0.058 Flask Uncertainty

|                          |                        |
|--------------------------|------------------------|
| <i>Giovanni Esposito</i> |                        |
| Formulated By:           | Giovanni Esposito      |
| Reviewed By:             | <i>Pedro L. Rentes</i> |
|                          | Pedro L. Rentes        |
|                          | 072122                 |

| 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 BA022019A1 | 1000                  | 99.999     | 0.10            | 52.3      | 3.82417           | 3.82426           | 1000.0               | 2.0                              |

1. Barium nitrate (Ba) IN023 BA022019A1 1000 99.999 0.10 52.3 3.82417 3.82426 1000.0 2.0 10022-31-8 0.5 mg/m3 or-ral 355 mg/kg 31046

[1] Spectrum No. 1 [ 12.514 sec]:58156.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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
|                                             |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       | W  | <0.02 |
|                                             |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       | U  | <0.02 |
|                                             |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       | V  | <0.02 |
|                                             |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       | Yb | <0.02 |
|                                             |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       | Y  | <0.02 |
|                                             |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       | Zn | <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:**  
**Lot Number:**  
**Description:**

**58120**  
**031523**  
**Calcium (Ca)**

**Solvent:** 21110221 Nitric Acid

**Expiration Date:**  
**Recommended Storage:**  
**Nominal Concentration (µg/mL):**  
**NIST Test Number:**

031526  
Ambient (20 °C)  
10000  
6UTB  
5E-05 Balance Uncertainty  
0.058 Flask Uncertainty

**Weight shown below was diluted to (mL):** 3000.41

**Lot #**

**Lot #**

|                          |                          |
|--------------------------|--------------------------|
| <i>Giovanni Esposito</i> |                          |
| Formulated By:           | Giovanni Esposito 031523 |
| <i>Pedro L. Rentas</i>   |                          |
| Reviewed By:             | Pedro L. Rentas 031523   |

**SDS Information**

(Solvent Safety Info. On Attached pg.)  
NIST  
SRM

Expanded  
Uncertainty

Actual  
Conc. (µg/mL)

Actual  
Weight (g)

Target  
Weight (g)

Assay  
Purity (%)

Purity (%)

Nominal  
Conc. (µg/mL)

Lot  
Number

RM#

Compound

1. Calcium carbonate (Ca)

IN014 CAD072022A1

10000

99.999

0.10

39.9

75.1990

75.2093

10001.4

20.0

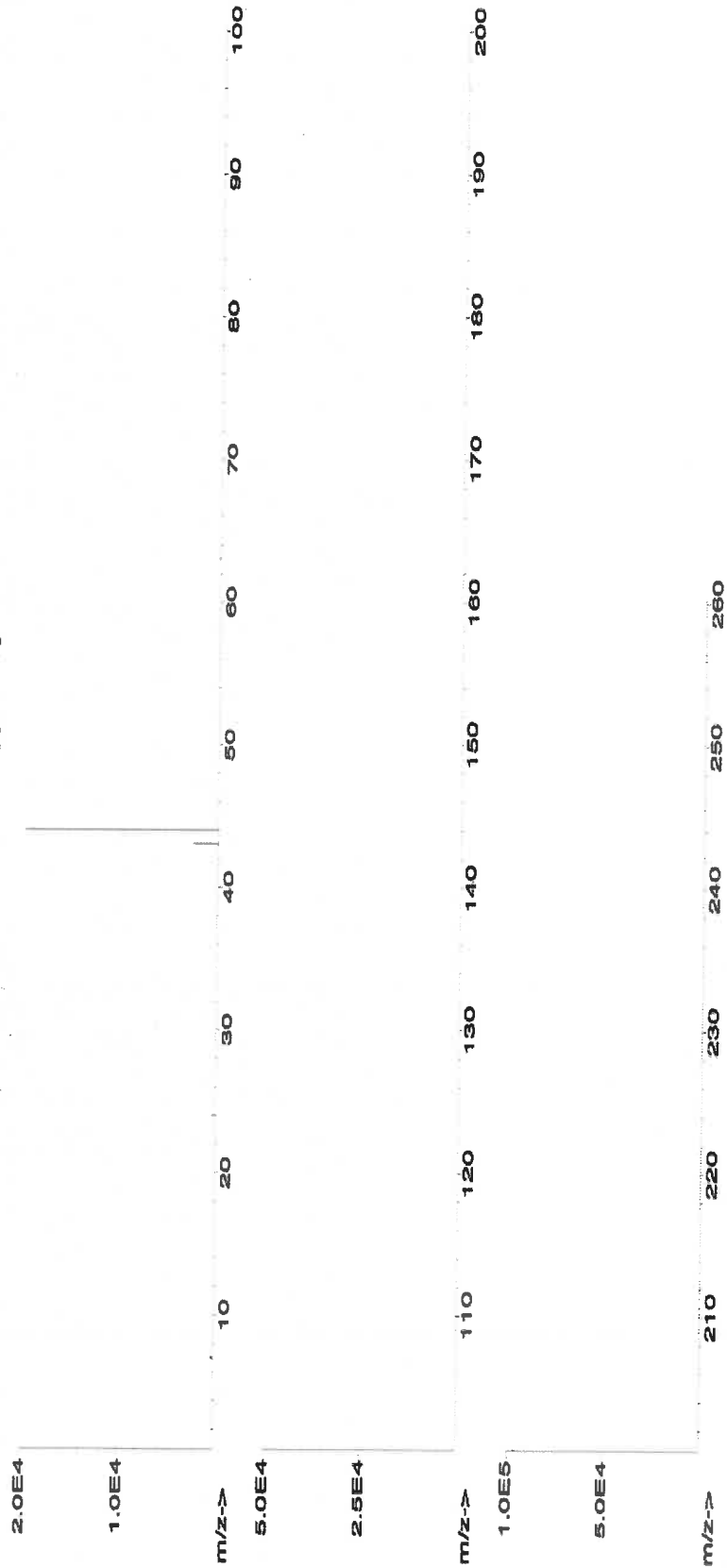
471-34-1

5 mg/m3

or:rat >2000mg/kg

3109a

[1] Spectrum No.1 [ 12.514 sec]:58120.D# [Count] [Linear]



317



# 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 |
| Sb                                          | <0.02 | Ca | <0.02 | Er | <0.02 | Ho | <0.02 | Lu | <0.02 | Nb | <0.02 | Re | <0.02 | Si | <0.02 | Tc | <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 | Ti | <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 |
| 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 |
| 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 |
| 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 |
|                                             |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       | W  | <0.02 |
|                                             |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       | U  | <0.02 |
|                                             |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       | V  | <0.02 |
|                                             |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       | Yb | <0.02 |
|                                             |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       | Y  | <0.02 |
|                                             |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       | Zn | <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**

M553 R10317123

**CERTIFIED WEIGHT REPORT:**

**Part Number:**  
**Lot Number:**  
**Description:**

281.25

061522

**Lead (Pb)**

Expiration Date:  
Recommended Storage:  
Nominal Concentration (µg/mL):  
NIST Test Number:

061525

**Recommended Storage:** Ambient (20 °C)

10000

6UTB

Weight shown below was diluted to (mL): 2000.02

Алтынчууларын үзүрү

Lot #

Solvent: 20510011 Nitric Acid

2% Nitric Acid 40.0 (mL)

5E-05 Balance Uncertainty

0.058 Flask Uncertainty

|                          |                          |
|--------------------------|--------------------------|
| <i>Giovanni Esposito</i> |                          |
| Formulated By:           | Giovanni Esposito 061522 |
| <i>Pedro L. Rentas</i>   |                          |
| Reviewed By:             | Pedro L. Rentas 061522   |

## SDS Information

### Expanded

(Solvent Safety Info. On Attached pg.)

## Uncertainty

SRM

SRM

### 1. Lead(II) nitrate (Pb)

IN029 P8D122016A1

10000 99 999 0 10

22 0000

1400 06

10001 1

3

1

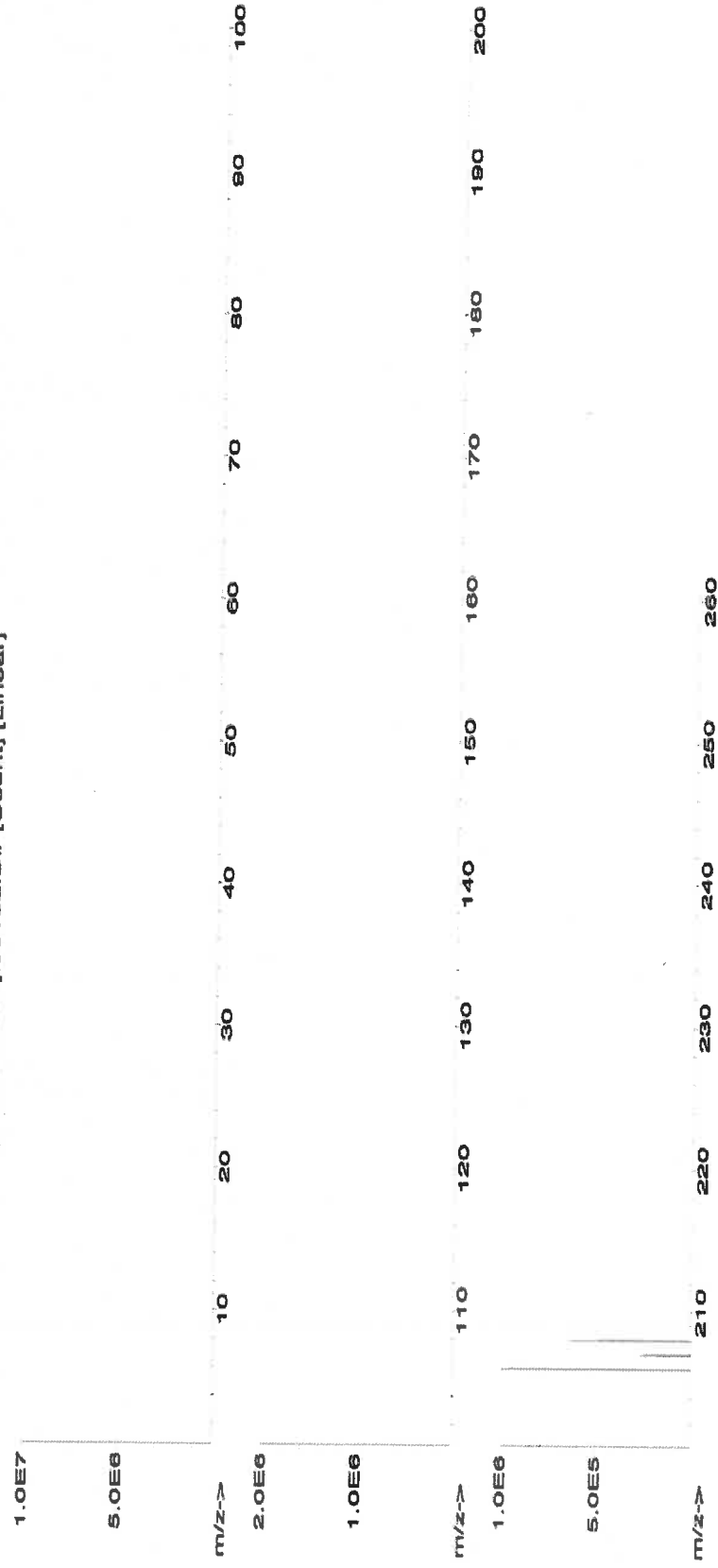
1

1

1

1

[1] Spectrum No.1 [ 17.284 sec]:58182.D# [Count] [Linear]



319



# 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 | <0.02 | 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 | <0.02 | 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 | <0.02 | 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 | 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:

*Ben P. Sha*

- \* 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:**

Lot #

Solvent: 20510011 Nitric Acid

**Part Number:** 58126  
**Lot Number:** 092122  
**Description:** Iron (Fe)

**Expiration Date:** 092125

**Recommended Storage:** Ambient (20 °C)

**Nominal Concentration (µg/mL):** 10000

**NIST Test Number:** 6UTB

**Weight shown below was diluted to (mL):** 5000.1

SE-05 Balance Uncertainty

0.12 Flask Uncertainty

7.0% 350.0 (mL) Nitric Acid

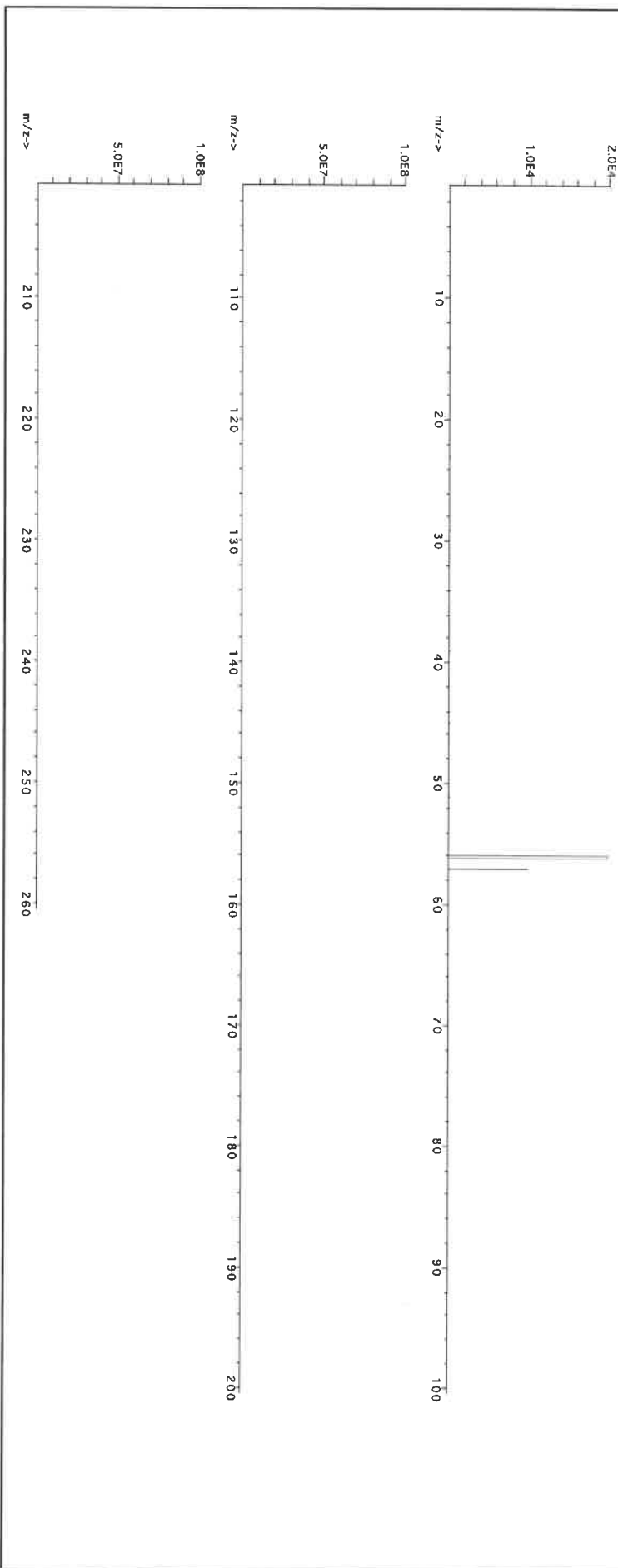
|                          |                        |
|--------------------------|------------------------|
| <i>Giovanni Caporaso</i> |                        |
| Formulated By:           | Giovanni Esposito      |
|                          | 092122                 |
| Reviewed By:             | <i>Pedro L. Rentas</i> |
|                          | Pedro L. Rentas        |
|                          | 092122                 |

**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. Iron (Fe) | IN346 | 2224912-500 | 10000 | 99.995 | 0.10 | 100.0 | 50.0034 | 50.0111 | 10001.5 | 20.0 | 7439-89-6 | 5 mg/m3 | or-hal 7500mg/kg 3126a |
|--------------|-------|-------------|-------|--------|------|-------|---------|---------|---------|------|-----------|---------|------------------------|

[1] Spectrum No.1 [30.763 sec]:58126.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 | <0.10 | Pr | <0.02 | Se | <0.2  | Tb | <0.02 | W  | <0.02 |
| Sb | <0.02 | Ca | <0.2  | Er | <0.02 | Ho | <0.02 | La | <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 | <0.02 | 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 | <0.05 | Ga | <0.02 | Fe | <0.2  | Hg | <0.2  | P  | <0.02 | Ru | <0.02 | Sr | <0.02 | Tm | <0.02 | Y  | <0.02 |
| Bi | <0.02 | Co | <0.10 | Ge | <0.10 | La | <0.02 | Mo | <0.02 | Pt | <0.02 | Sm | <0.02 | S  | <0.02 | Sn | <0.02 | Zn | <0.05 |
| B  | <0.02 | Cu | <0.10 | Au | <0.02 | Pb | <0.02 | Nd | <0.02 | K  | <0.2  | Sc | <0.02 | Ta | <0.02 | Ti | <0.02 | Zr | <0.02 |

(T)= Target analyte

## Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

*Bar P. Jha*

- \* 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).

322



**Certified Reference Material CRM**



M586 M587 R:03/17/22

**CERTIFIED WEIGHT REPORT:**

**Part Number:** 58111  
**Lot Number:** 022123  
**Description:** Sodium (Na)

**Solvent:** 21110221 Nitric Acid

**Expiration Date:** 022126  
**Recommended Storage:** Ambient (20 °C)  
**Nominal Concentration (µg/mL):** 10000  
**NIST Test Number:** 6UTB

Weight shown below was diluted to (mL): 3000.41

2% 60.0 Nitric Acid (mL)

5E-05 Balance Uncertainty  
0.06 Flask Uncertainty

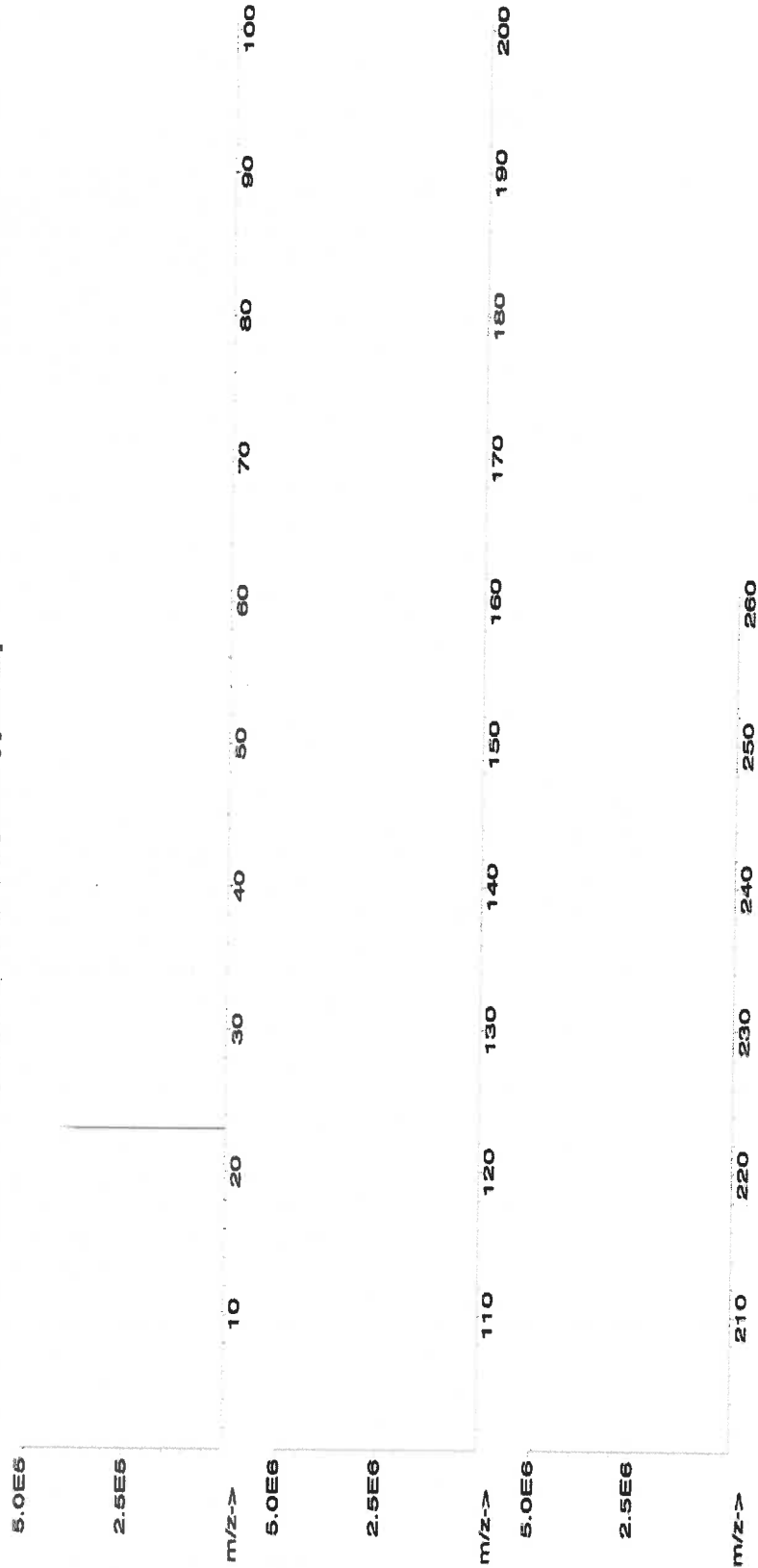
|                |                        |
|----------------|------------------------|
|                |                        |
| Formulated By: | Lawrence Barry 022123  |
|                |                        |
| Reviewed By:   | Pedro L. Rentas 022123 |

**SDS Information**

Expanded Uncertainty (Solvent Safety Info. On Attached pg.) NIST SRM  
+/- (µg/mL) CAS# OSHA PEL (TWA) LD50

| 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 |
|------------------------|-------|-------------|-----------------------|------------|------------------------|-----------|-------------------|-------------------|----------------------|----------------------------------|-----------|----------------|--------------------|----------|
| 1. Sodium nitrate (Na) | IN036 | NAV01201511 | 10000                 | 99.998     | 0.10                   | 26.9      | 111.5406          | 111.5410          | 10000.0              | 20.0                             | 7631-99-4 | 5 mg/m3        | ort-rat 3430 mg/kg | 3152a    |

[1] Spectrum No.1 [ 8.935 sec]:58111.D# [Count] [Linear]



323



# 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 | <0.2  | Ce | <0.02 | Eu | <0.02 | In | <0.02 | Mg | <0.02 | Os | <0.01 | 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 | T     | 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 | 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: **58119**  
Lot Number: **120822**  
Description: **Potassium (K)**

Solvent: 20510011 Nitric Acid

Lot #

*Giovanni Esposito*

Formulated By: Giovanni Esposito 120822

Expiration Date: 120825  
Recommended Storage: Ambient (20 °C)  
Nominal Concentration (µg/mL): 10000  
NIST Test Number: 6UTB

2% 60.0 (mL) Nitric Acid

*Pedro L. Rantas*

Reviewed By: Pedro L. Rantas 120822

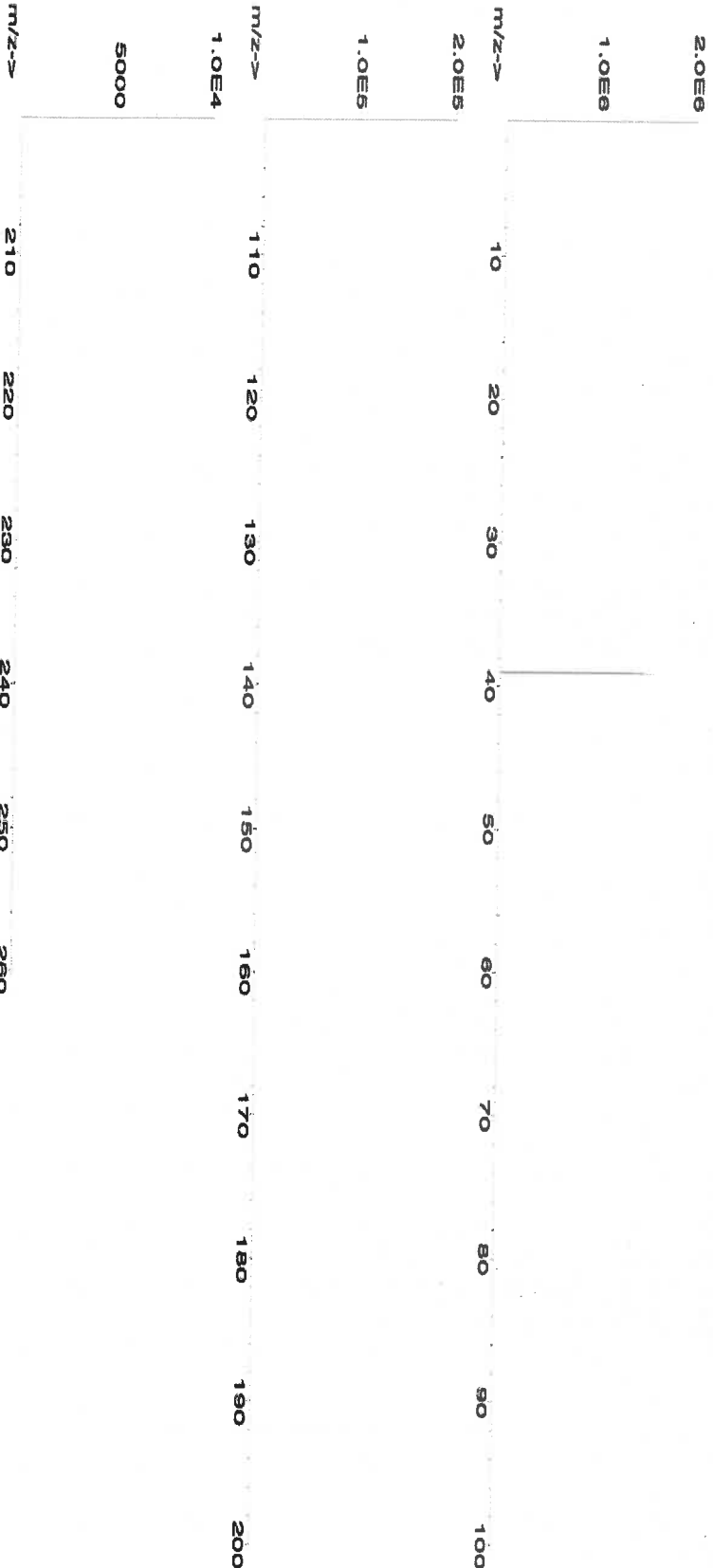
Weight shown below was diluted to (mL): 3000.4 0.06 Flask Uncertainty

**Compound**

| Lot | Nominal | Purity        | Uncertainty | Assay      | Target     | Actual     | Actual        | Expanded    | SDS Information                        | NIST |
|-----|---------|---------------|-------------|------------|------------|------------|---------------|-------------|----------------------------------------|------|
| RM# | Number  | Conc. (µg/mL) | (%)         | Purity (%) | Weight (g) | Weight (g) | Conc. (µg/mL) | +/- (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 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):**

326

**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:**

**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).



**CERTIFIED WEIGHT REPORT:**

Part Number: 58024  
Lot Number: 060523  
Description: Chromium (Cr)

Lot #  
2110221  
Solvent: Nitric Acid

2.0%

40.0 (mL)  
Nitric Acid

Formulated By: *Lawrence Barry*  
Reviewed By: *Pedro L. Renteria*

327

Expiration Date: 060526  
Recommended Storage: Ambient (20 °C)  
Nominal Concentration (µg/mL): 1000

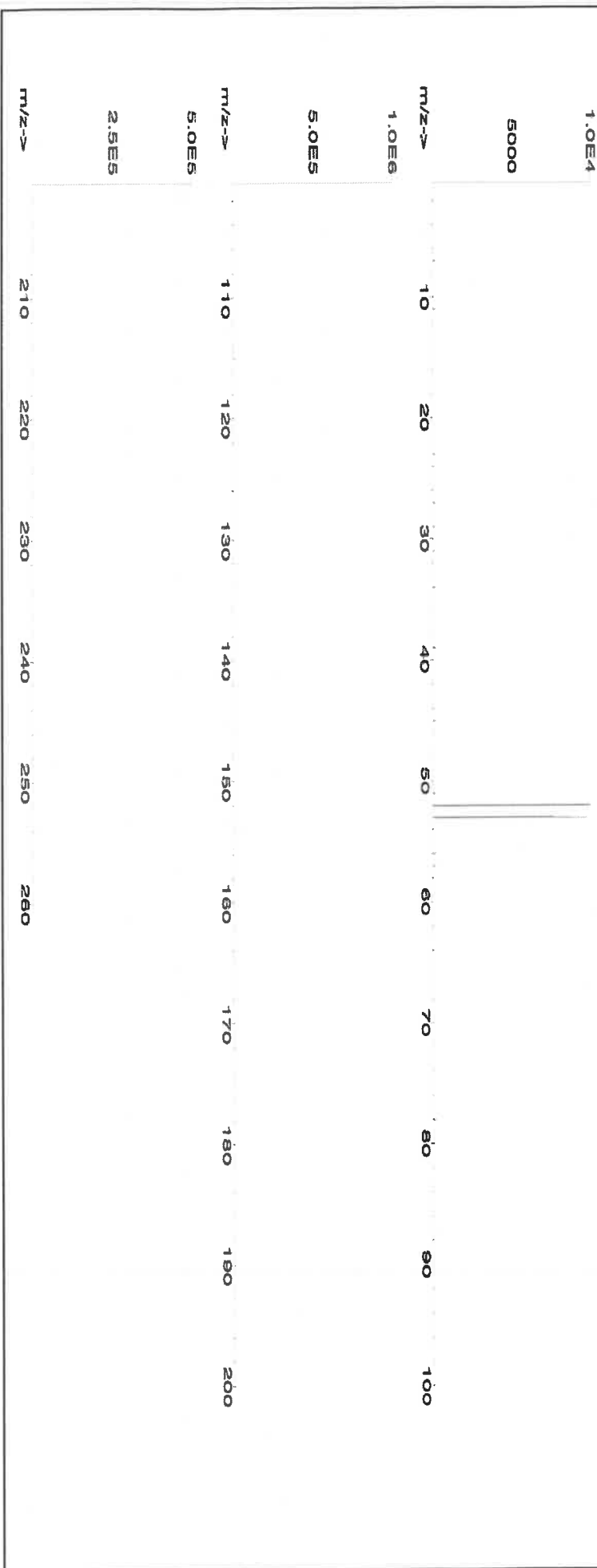
Formulated By: *Lawrence Barry*  
Reviewed By: *Pedro L. Renteria*

NIST Test Number: 6UTB  
Volume shown below was diluted to (mL): 2000.02  
5E-05 Balance Uncertainty  
0.058 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 |
|----------|-------------|------------|-----------------|-------------------|------------------|-----------------------|-----------------------|---------------------|----------------------------------|------|----------------|------|----------|
|----------|-------------|------------|-----------------|-------------------|------------------|-----------------------|-----------------------|---------------------|----------------------------------|------|----------------|------|----------|

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]





**Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):**

328

**Trace Metals Verification by ICP-MS (µg/mL)**

|    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |
|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|
| Al | <0.02 | Cd | <0.02 | Dy | <0.02 | Hf | <0.02 | Li | <0.02 | Ni | <0.02 | Pr | <0.02 | Se | <0.2  | Tb | <0.02 | W  | <0.02 |
| Sb | <0.02 | Ca | <0.2  | Er | <0.02 | Ho | <0.02 | Lu | <0.02 | Nb | <0.02 | Re | <0.02 | Si | <0.02 | Te | <0.02 | U  | <0.02 |
| As | <0.2  | Ce | <0.02 | Eu | <0.02 | In | <0.02 | Mg | <0.01 | Os | <0.02 | Rh | <0.02 | Ag | <0.02 | Tl | <0.02 | V  | <0.02 |
| Ba | <0.02 | Cs | <0.02 | Gd | <0.02 | Ir | <0.02 | Mn | <0.02 | Pd | <0.02 | Rb | <0.02 | Na | <0.2  | Th | <0.02 | Yb | <0.02 |
| Be | <0.01 | Cr | T     | Ga | <0.02 | Fe | <0.2  | Hg | <0.2  | P  | <0.02 | Ru | <0.02 | Sr | <0.02 | Tm | <0.02 | Y  | <0.02 |
| Bi | <0.02 | Co | <0.02 | Ge | <0.02 | La | <0.02 | Mo | <0.02 | Pt | <0.02 | Sm | <0.02 | S  | <0.02 | Sn | <0.02 | Zn | <0.02 |
| B  | <0.02 | Cu | <0.02 | Au | <0.02 | Pb | <0.02 | Nd | <0.02 | K  | <0.2  | Sc | <0.02 | Ta | <0.02 | Ti | <0.02 | Zr | <0.02 |

(T) = Target analyte

**Physical Characterization:**

**Certified by:**

Homogeneity: No heterogeneity was observed in the preparation of this standard.

- \* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- \* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- \* All standard containers are meticulously cleaned prior to use.
- \* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- \* Standards are 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**



M5648 R: 10/23/23

**CERTIFIED WEIGHT REPORT:**

**Part Number:**  
**Lot Number:**  
**Description:**

58025  
102623  
Manganese (Mn)

**Lot #** 24002546  
**Solvent:** Nitric Acid

**Expiration Date:**  
**Recommended Storage:**  
**Nominal Concentration (µg/mL):**  
**NIST Test Number:**

102626  
Ambient (20 °C)  
1000  
6UTB  
5E-05 Balance Uncertainty  
0.058 Flask Uncertainty

2.0% Nitric Acid  
60.0 (mL)

|                |                 |        |
|----------------|-----------------|--------|
| Formulated By: | Benson Chan     | 102623 |
| Reviewed By:   | Pedro L. Rentas | 102623 |

**SDS Information**

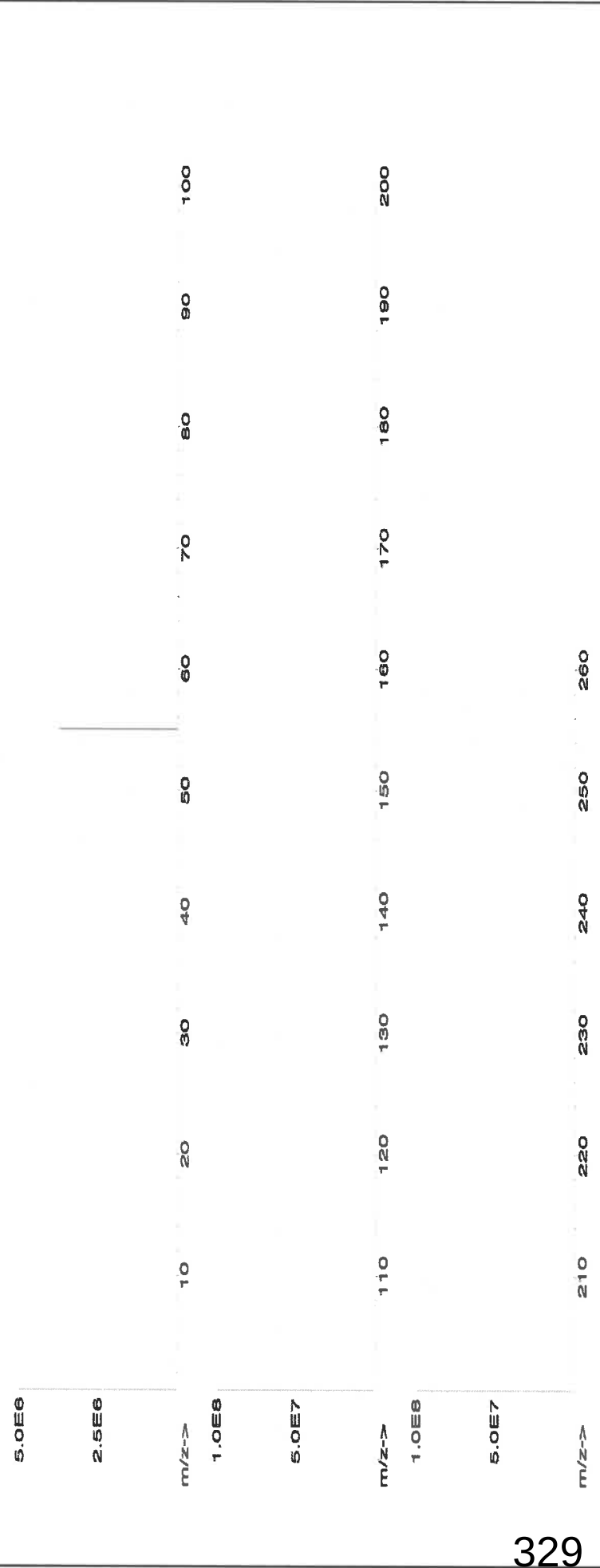
Expanded Uncertainty  
(Solvent Safety Info. On Attached pg.)  
CAS# OSHA PEL (TWA) LD50

NIST SRM

**Compound**

1. Manganese(II) nitrate tetrahydrate (Mn) 58125 071123 0.1000 300.0 0.084 1000 10000.1 1000.0 2.1 20894-39-7 5 mg/m3 ori-rat >300mg/kg 3132

[1] Spectrum No.1 [ 34.243 sec]:57025.D# [Count] [Linear]



329



## 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 | <0.02 | Tb | <0.2  | 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 | T     | Rb | <0.02 | Na | <0.02 | Th | <0.2  | 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  | <0.02 | Sc | <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 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: **58029**  
Lot Number: **071723**  
Description: **Copper (Cu)**

Lot #: **2110221**  
Solvent: **Nitric Acid**

2.0%

40.0 (mL)  
Nitric Acid

|                |                 |        |
|----------------|-----------------|--------|
| Formulated By: | Benson Chan     | 071723 |
| Reviewed By:   | Pedro L. Ruelas | 071723 |

Expiration Date: **071726**  
Recommended Storage: **Ambient (20 °C)**  
Nominal Concentration (µg/mL): **1000**

NIST Test Number: **6L7B**

Volume shown below was diluted to (mL): **2000.02**  
Balance Uncertainty: **5E-05**  
Flask Uncertainty: **0.058**

**SDS Information**

| 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 |
|----------|-------------|------------|-----------------|-------------------|------------------|-----------------------|-----------------------|---------------------|----------------------------------|------|----------------|------|----------|
|----------|-------------|------------|-----------------|-------------------|------------------|-----------------------|-----------------------|---------------------|----------------------------------|------|----------------|------|----------|

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 |     |     |     |     |



**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 | Ru | <0.02 | Na | <0.2  | Th | <0.02 | Yb | <0.02 |
| Be | <0.01 | Cr | <0.02 | Ga | <0.02 | La | <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 | Pb | <0.02 | Mo | <0.02 | Pt | <0.02 | Sm | <0.02 | Ta | <0.02 | Sn | <0.02 | Zn | <0.02 |
| B  | <0.02 | Cu | T     | Au | <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).



M5768 M5769  
Certified Reference Material CRM  
R: 1/13/24



ANAB ISO 17034 Accredited  
AR-1539 Certificate Number  
https://AbsoluteStandards.com

**CERTIFIED WEIGHT REPORT:**

Part Number: 58112  
Lot Number: 091823  
Description: Magnesium (Mg)

Solvent: 24002546 Nitric Acid

Lot #

Expiration Date: 091826

2% 40.0 (mL) Nitric Acid

Recommended Storage: Ambient (20 °C)

Nominal Concentration (µg/mL): 10000

NIST Test Number: 6UTB

5E-05 Balance Uncertainty

BP R: 1/13/24

Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

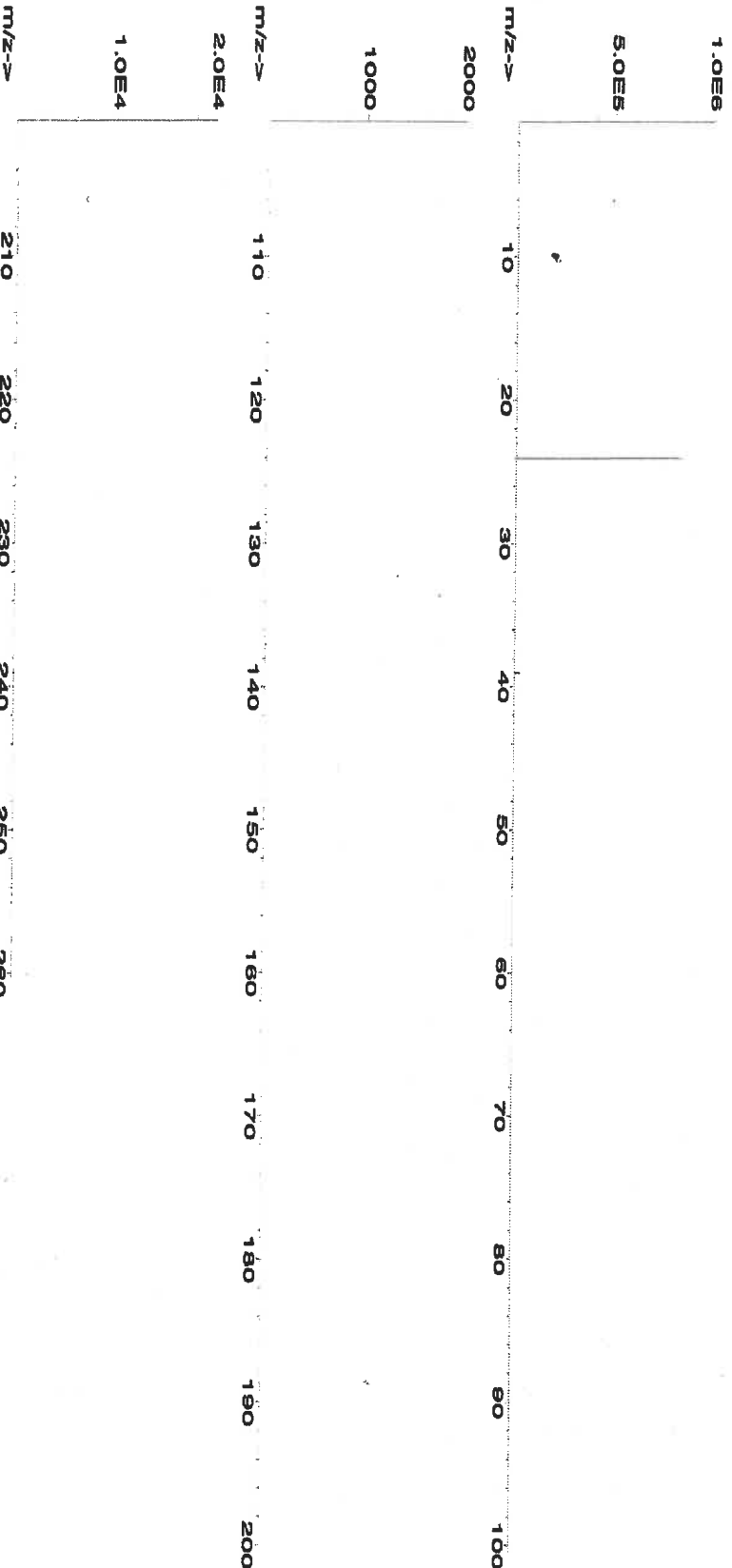
|                                      |        |
|--------------------------------------|--------|
| Formulated By: <i>Lawrence Barry</i> | 091823 |
| Reviewed By: <i>Pedro L. Rentas</i>  | 091823 |

**Compound**

| Lot | Nominal | Purity        | Uncertainty | Assay      | Target     | Actual     | Actual        | Expanded    | SDS Information                        | NIST |
|-----|---------|---------------|-------------|------------|------------|------------|---------------|-------------|----------------------------------------|------|
| RW# | Number  | Conc. (µg/mL) | (%)         | Purity (%) | Weight (g) | Weight (g) | Conc. (µg/mL) | +/- (µg/mL) | (Solvent Safety Info. On Attached pg.) | SRM  |

1. Magnesium nitrate hexahydrate (Mg) IN030 M500222A1 10000 99.999 0.10 8.51 234.9118 234.9126 10000.0 20.0 13446-18-9 NA or-lat 5440 mg/kg 3131a

[1] Spectrum No. 1 [ 19.923 sec]:58112.D# [Count] [Linear]





## Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

334

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 | T     | Os | <0.02 | Rh | <0.02 | Ag | <0.02 | Tl | <0.02 | V  | <0.02 |
| Ba | <0.02 | Cs | <0.02 | Gd | <0.02 | Ir | <0.02 | Mn | <0.02 | Pd | <0.02 | Rb | <0.02 | Na | <0.2  | Th | <0.02 | Yb | <0.02 |
| Be | <0.01 | Cr | <0.02 | Ga | <0.02 | Fe | <0.2  | Hg | <0.2  | P  | <0.02 | Ru | <0.02 | Sr | <0.02 | Tm | <0.02 | Y  | <0.02 |
| Bi | <0.02 | Co | <0.02 | Ge | <0.02 | La | <0.02 | Mo | <0.02 | Pt | <0.02 | Sm | <0.02 | S  | <0.02 | Sn | <0.02 | Zn | <0.02 |
| B  | <0.02 | Cu | <0.02 | Au | <0.02 | Pb | <0.02 | Nd | <0.02 | K  | <0.2  | Sc | <0.02 | Ta | <0.02 | Ti | <0.02 | Zr | <0.02 |

(T) = Target analyte

## Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- \* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- \* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- \* All standard containers are meticulously cleaned prior to use.
- \* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- \* Standards are 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).



M5768 M5769  
Certified Reference Material CRM  
R: 1/13/24



ANAB ISO 17034 Accredited  
AR-1539 Certificate Number  
https://AbsoluteStandards.com

**CERTIFIED WEIGHT REPORT:**

Part Number:  
Lot Number:  
Description:

58112  
091823  
Magnesium (Mg)

Solvent: 24002546 Nitric Acid

Lot #

Formulated By: Lawrence Barry  
Reviewed By: Pedro L. Rentas

091823

Expiration Date:

091826

2%

40.0 (mL)

Nitric Acid

Recommended Storage:

Ambient (20 °C)

M5768 M5769

R: 1/13/24

Formulated By: Lawrence Barry

091823

Nominal Concentration (µg/mL):

10000

5E-05 Balance Uncertainty

R: 1/13/24

Reviewed By: Pedro L. Rentas

091823

Weight shown below was diluted to (mL): 2000.02 0.058 Flask Uncertainty

**Compound**

RW#

Lot

Nominal

Purity (%)

Uncertainty

Assay

Target

Actual

Actual

Expanded

Uncertainty

CAS#

OSHA PEL (TWA)

LD50

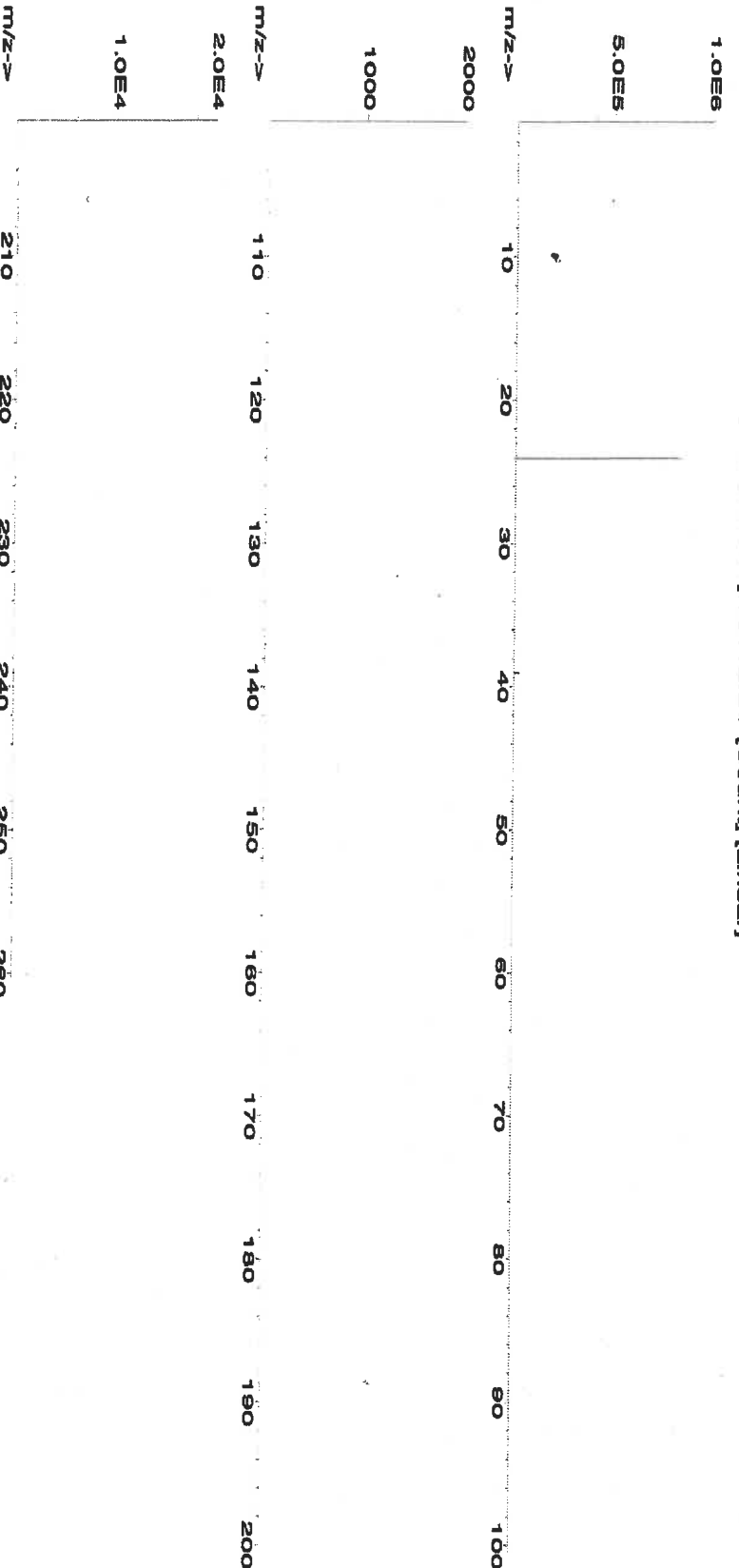
SRM

NIST

SDS Information

1. Magnesium nitrate hexahydrate (Mg) IN030 M500222A1 10000 99.999 0.10 8.51 234.9118 234.9126 10000.0 20.0 13446-18-9 NA or-rat 5440 mg/kg 3131a

[1] Spectrum No. 1 [ 19.923 sec]:58112.D# [Count] [Linear]





## Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):

336

## Trace Metals Verification by ICP-MS (µg/mL)

|    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |
|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|
| Al | <0.02 | Cd | <0.02 | Dy | <0.02 | Hf | <0.02 | Li | <0.02 | Ni | <0.02 | Pr | <0.02 | Se | <0.2  | Tb | <0.02 | W  | <0.02 |
| Sb | <0.02 | Ca | <0.2  | Er | <0.02 | Ho | <0.02 | Lu | <0.02 | Nb | <0.02 | Re | <0.02 | Si | <0.02 | Te | <0.02 | U  | <0.02 |
| As | <0.2  | Ce | <0.02 | Eu | <0.02 | In | <0.02 | Mg | T     | Os | <0.02 | Rh | <0.02 | Ag | <0.02 | Tl | <0.02 | V  | <0.02 |
| Ba | <0.02 | Cs | <0.02 | Gd | <0.02 | Ir | <0.02 | Mn | <0.02 | Pd | <0.02 | Rb | <0.02 | Na | <0.2  | Th | <0.02 | Yb | <0.02 |
| Be | <0.01 | Cr | <0.02 | Ga | <0.02 | Fe | <0.2  | Hg | <0.2  | P  | <0.02 | Ru | <0.02 | Sr | <0.02 | Tm | <0.02 | Y  | <0.02 |
| Bi | <0.02 | Co | <0.02 | Ge | <0.02 | La | <0.02 | Mo | <0.02 | Pt | <0.02 | Sm | <0.02 | S  | <0.02 | Sn | <0.02 | Zn | <0.02 |
| B  | <0.02 | Cu | <0.02 | Au | <0.02 | Pb | <0.02 | Nd | <0.02 | K  | <0.2  | Sc | <0.02 | Ta | <0.02 | Ti | <0.02 | Zr | <0.02 |

(T) = Target analyte

## Physical Characterization:

Homogeneity: No heterogeneity was observed in the preparation of this standard.

Certified by:

- \* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- \* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- \* All standard containers are meticulously cleaned prior to use.
- \* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- \* Standards are 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:**

**Recommended Storage:** Ambient (20 °C)

**Nominal Concentration (µg/mL):**

**NIST Test Number:**

**Volume shown below was diluted to (mL):**

2.0%

40.0 (mL)

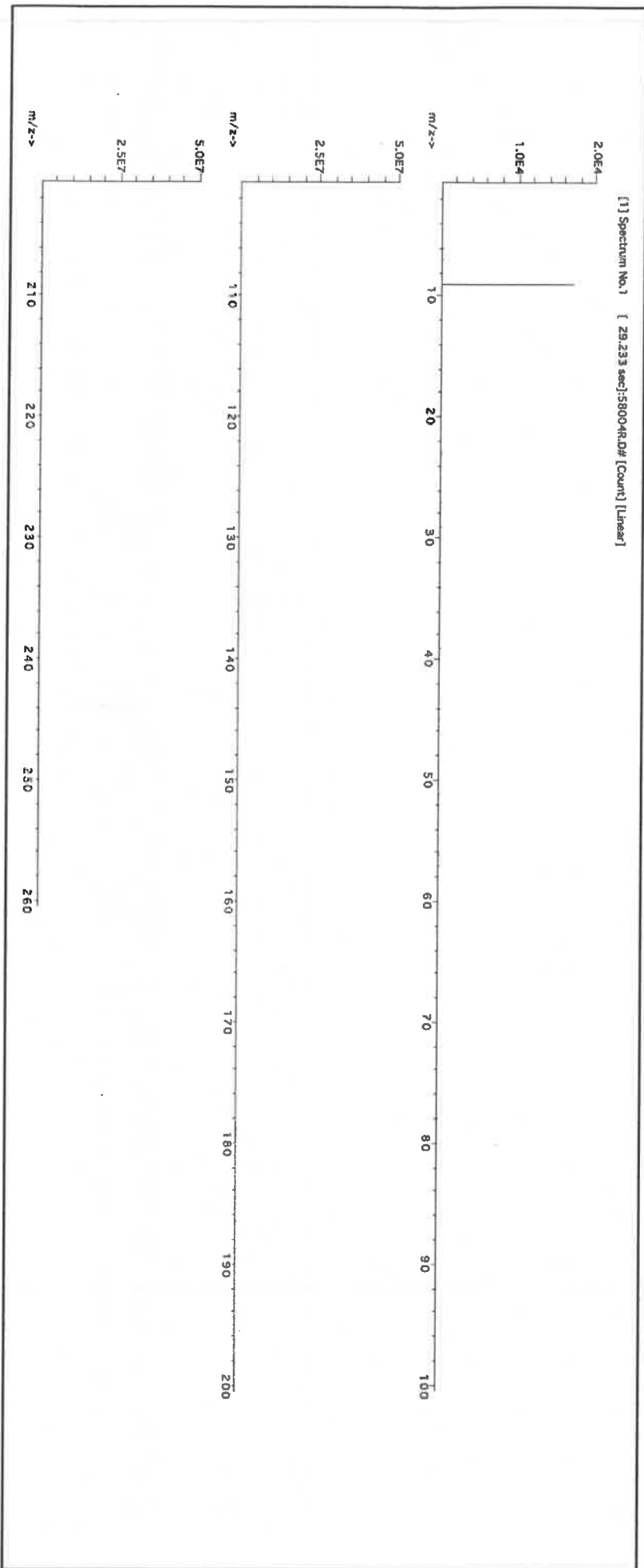
Nitric Acid

|                |                 |        |
|----------------|-----------------|--------|
| 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 |
|----------|-------------|-----|-----------------|-------------------|--------------------------|-----------------------|-----------------------|---------------------|----------------------------------|------|----------------|------|----------|
|----------|-------------|-----|-----------------|-------------------|--------------------------|-----------------------|-----------------------|---------------------|----------------------------------|------|----------------|------|----------|

|                           |       |        |        |       |       |      |         |        |     |            |          |                        |    |
|---------------------------|-------|--------|--------|-------|-------|------|---------|--------|-----|------------|----------|------------------------|----|
| 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 |
|---------------------------|-------|--------|--------|-------|-------|------|---------|--------|-----|------------|----------|------------------------|----|





## 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 | 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  | <0.02 | 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).

3388



**Certified Reference Material CRM**

**CERTIFIED WEIGHT REPORT:**

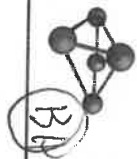
Part Number: **57050**  
Lot Number: **071123**  
Description: **Tin (Sn)**

Solvents: **21110221** Nitric Acid  
**22D0562008** Hydrochloric acid

Lot #

*R-1.02509124*

*M599*



Expiration Date: **071126**  
Recommended Storage: **Ambient (20 °C)**  
Nominal Concentration (µg/mL): **1000**  
NIST Test Number: **6UTB**

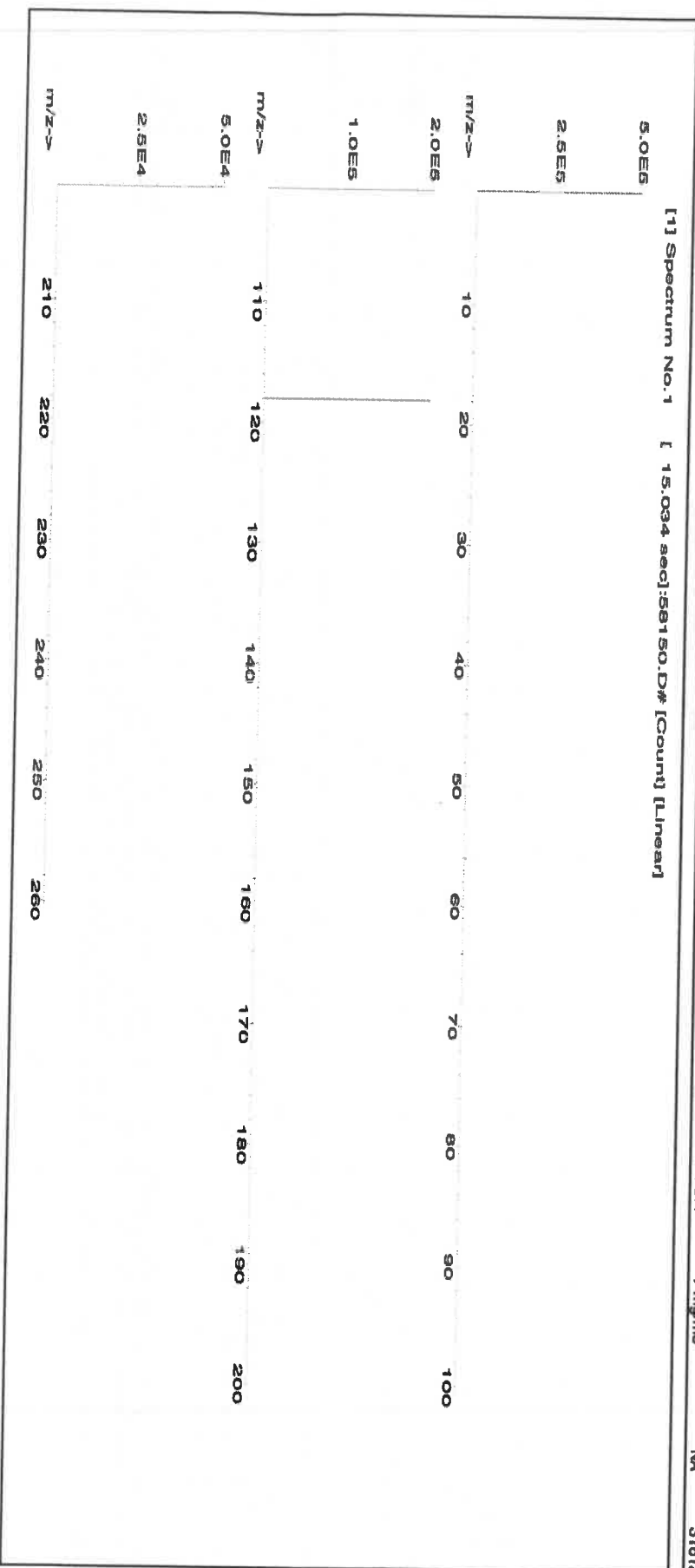
Weight shown below was diluted to (mL): **499.93**  
**5E-05** Balance Uncertainty  
**0.058** Flask Uncertainty

|                                     |                 |
|-------------------------------------|-----------------|
| Formulated By: <i>Benson Chan</i>   |                 |
| Benson Chan                         |                 |
| 071123                              |                 |
| Reviewed By: <i>Pedro L. Rentas</i> | Pedro L. Rentas |
| 071123                              |                 |

| SDS Information |        |               |     |            |     |            |            |               |     |            |            |               |     |            | NIST       |               |     |
|-----------------|--------|---------------|-----|------------|-----|------------|------------|---------------|-----|------------|------------|---------------|-----|------------|------------|---------------|-----|
| Compound        |        | Lot           |     | Nominal    |     | Purity     |            | Uncertainty   |     | Assay      |            | Target        |     | Actual     |            | Expanded      |     |
| RM#             | Number | Conc. (µg/mL) | (%) | Purity (%) | (%) | Weight (g) | Weight (g) | Conc. (µg/mL) | (%) | Weight (g) | Weight (g) | Conc. (µg/mL) | (%) | Weight (g) | Weight (g) | Conc. (µg/mL) | (%) |

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):**

340

**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 | 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).



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

5E-05 Balance Uncertainty  
0.058 Flask Uncertainty

Lot # 24002546  
Solvent: Nitric Acid

2.0% Nitric Acid  
40.0 (mL)

|                |                 |
|----------------|-----------------|
|                |                 |
| Formulated By: | Lawrence Barry  |
|                |                 |
| Reviewed By:   | Pedro L. Rentas |

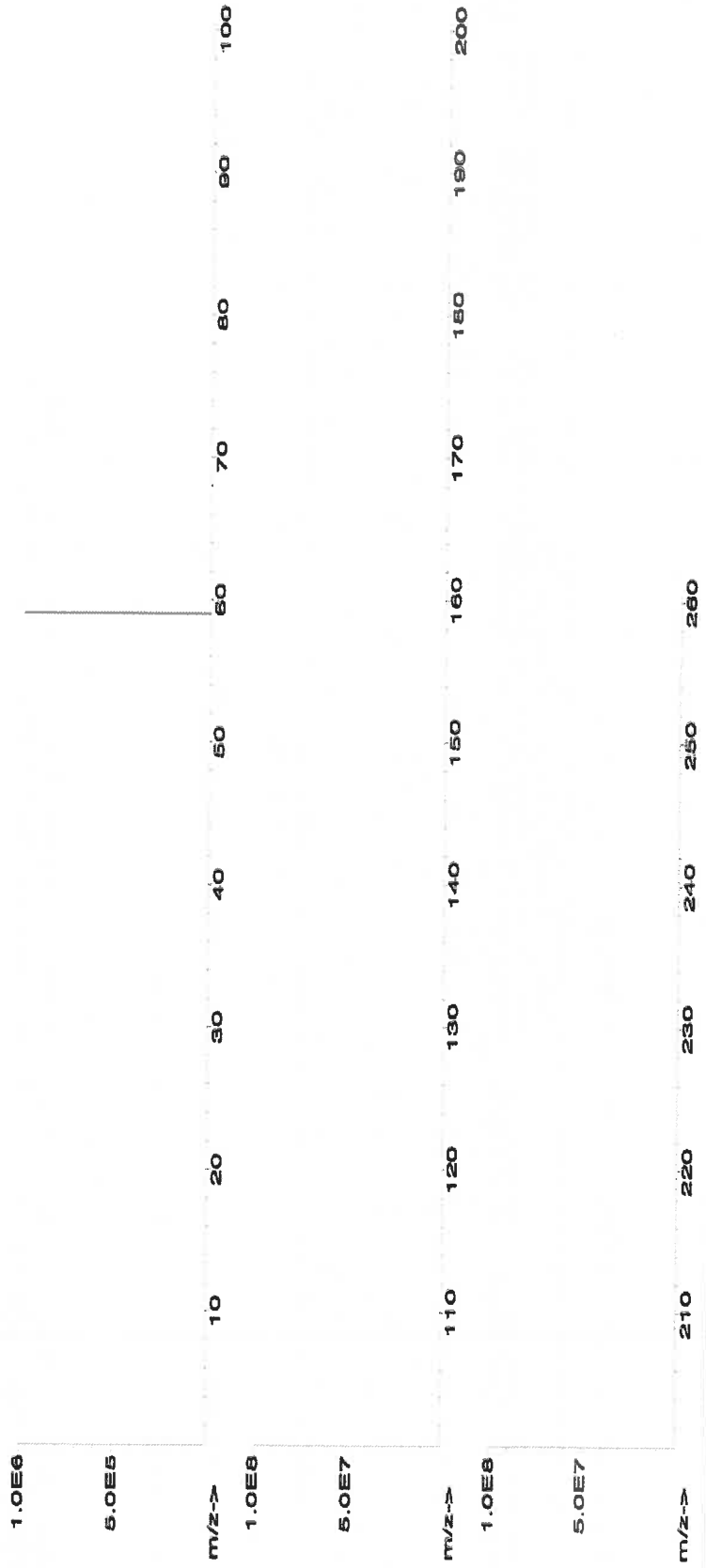
SDS Information

Expanded Uncertainty +/- (µg/mL)  
Final Conc. (µg/mL)  
Initial Conc. (µg/mL)  
Nominal Conc. (µg/mL)  
Pipette (mL)  
Dilution Factor  
Part Number  
Lot Number

(Solvent Safety Info. On Attached pg.)  
CAS#  
OSHA PEL (TWA)  
LD50  
NIST  
SRM

1. Cobalt(II) nitrate hexahydrate (Co) 58127 050923 0.1000 200.0 0.084 1000 10000.0 1000.0 2.2 10026-22-9 0.02 mg/m3 orl-rat 691 mg/kg 3113

[1] Spectrum No.1 [ 34.243 sec]:58027.D# [Count] [Linear]



341



**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 | <0.02 | 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 | <0.2  | Na | <0.02 | Th | <0.02 | Yb | <0.02 |
| Be | <0.01 | Cr | <0.02 | Ga | <0.02 | Fe | <0.2  | Hg | <0.2  | P  | <0.02 | Ru | <0.02 | Sr | <0.02 | Tm | <0.02 | Y  | <0.02 |
| Bi | <0.02 | Co | T     | 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 | <0.2  | 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).



AR: 02/09/24

M5801

BA



**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

5E-05 Balance Uncertainty  
0.06 Flask Uncertainty

2.0%

80.0 (mL)

Nitric Acid

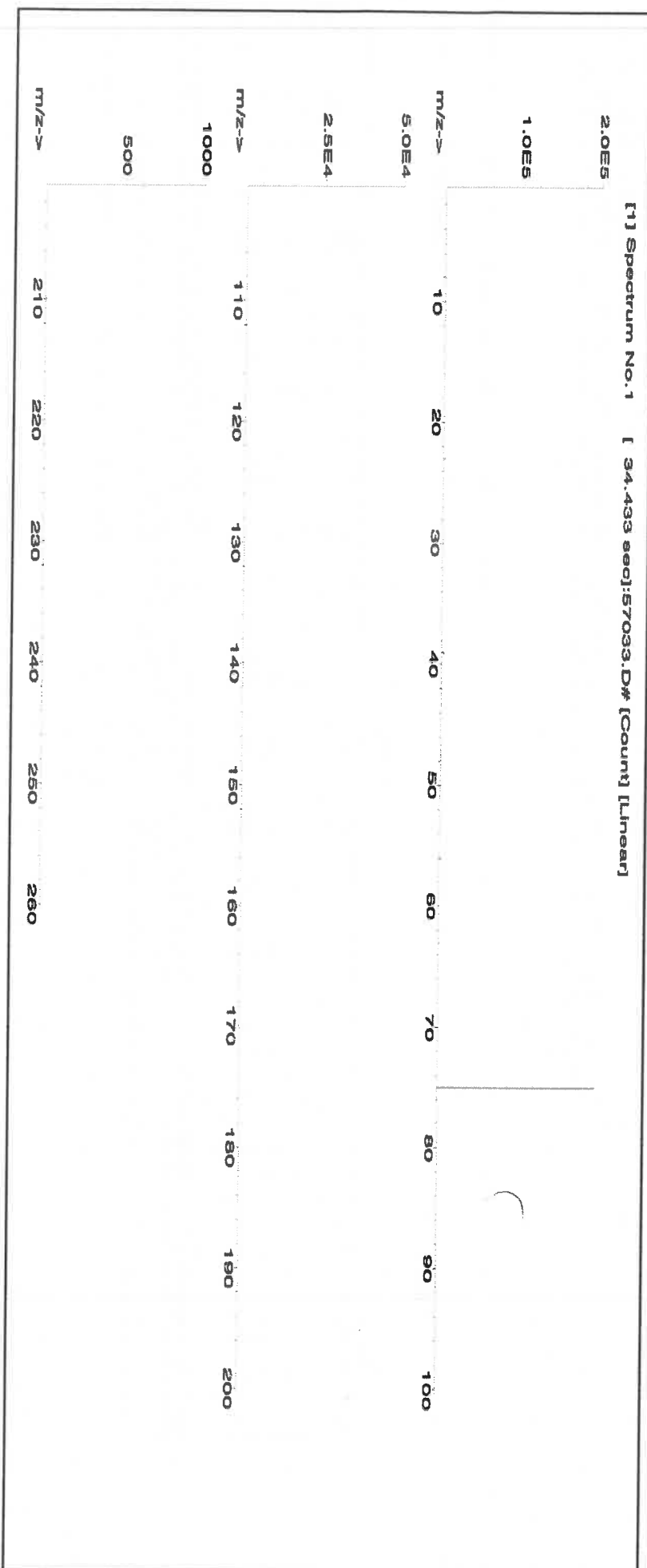
|                |                 |        |
|----------------|-----------------|--------|
| Formulated By: | Lawrence Barry  | 111323 |
| Reviewed By:   | Pedro L. Rendas | 111323 |

**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) | CAS# | OSHA PEL (TWA) | LD50 | NIST SRM |
|----------|-------------|------------|-----------------|-------------------|--------------------------|-----------------------|-----------------------|---------------------|----------------------------------|------|----------------|------|----------|
|----------|-------------|------------|-----------------|-------------------|--------------------------|-----------------------|-----------------------|---------------------|----------------------------------|------|----------------|------|----------|

1. Arsenic (As) 58133 020522 0.1000 400.0 0.084 1000 10001.0 1000.0 2.0 7440-38-2 0.5 mg/m3 or-lat 500 mg/kg 3103a

[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 <sub>2</sub> | <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 <sup>*</sup> | <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 #**

**Formulated By:** Lawrence Barry  
**Reviewed By:** Pedro L. Rentas

**Expiration Date:** 041726

**2% 40.0 (mL) Nitric Acid**

**Recommended Storage:** Ambient (20 °C)

**Nominal Concentration (µg/mL):** 10000

**NIST Test Number:** 6UTB

**5E-05 Balance Uncertainty**

**Weight shown below was diluted to (mL):** 2000.02 0.058 Flask Uncertainty

**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 |
|------------|-----------------------|------------|-----------------|-----------|-------------------|-------------------|----------------------|----------------------------------|-----------|----------------|-----------------|----------|
| 57115      | 10000                 | 99.999     | 0.10            | 27.5      | 72.7287           | 72.7289           | 10000.0              | 20.0                             | 7722-76-1 | 5 mg/m3        | oral >2000mg/kg | 3186     |

1. Ammonium dihydrogen phosphate (P) IN008 P082019A1 10000 99.999 0.10 27.5 72.7287 72.7289 10000.0 20.0 7722-76-1 5 mg/m3 oral >2000mg/kg 3186

[1] Spectrum No.1 [ 12.074 sec]:58115.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 | 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  | T     | Ru | <0.02 | Sr | <0.02 | Tm | <0.02 | Y  | <0.02 |
| Bi | <0.02 | Co | <0.02 | Ge | <0.02 | La | <0.02 | Mo | <0.02 | Pt | <0.02 | Sm | <0.02 | S  | <0.02 | Sn | <0.02 | Zn | <0.02 |
| B  | <0.02 | Cu | <0.02 | Au | <0.02 | Pb | <0.02 | Nd | <0.02 | K  | <0.2  | Sc | <0.02 | Ta | <0.02 | Ti | <0.02 | Zr | <0.02 |

(T) = Target analyte

**Physical Characterization:**

Homogeneity: No heterogeneity was observed in the preparation of this standard.

**Certified by:**

- \* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- \* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- \* All standard containers are meticulously cleaned prior to use.
- \* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- \* Standards are 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:  
Lot Number:  
Description:

57016  
122923  
Sulfur (S)

Solvent: 122923

ASTM Type 1 Water

|                |                 |
|----------------|-----------------|
|                |                 |
| Formulated By: | Benson Chan     |
| 122923         |                 |
|                |                 |
| Reviewed By:   | Pedro L. Rentas |
| 122923         |                 |

347

Expiration Date: 122926  
Recommended Storage: Ambient (20 °C)  
Nominal Concentration (µg/mL): 1000  
NIST Test Number: 6L7B  
Weight shown below was diluted to (mL): 4000.0  
SE-05 Balance Uncertainty  
0.06 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 |
|-----|------------|-----------------------|------------|-----------------|-----------|-------------------|-------------------|----------------------|----------------------------------|------|----------------|------|----------|
|-----|------------|-----------------------|------------|-----------------|-----------|-------------------|-------------------|----------------------|----------------------------------|------|----------------|------|----------|

1. Ammonium sulfate (S) IN117 SLBR725V 1000 99.9 0.10 24.3 16.4979 16.4980 1000.0 2.0 7783-20-2 NA or-rel 4250mg/kg 3181

[1] Spectrum No. 1 [ 33.603 sec]:57016.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 | La | <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 | 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 | S  | <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 | Ta | <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 | 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: **57116**  
Lot Number: **071123**  
Description: **Sulfur (S)**

Solvent: **071123** Lot # **071123**  
ASTM Type 1 Water

|                |                 |        |
|----------------|-----------------|--------|
| Formulated By: | Lawrence Barry  | 071123 |
| Reviewed By:   | Pedro L. Rentas | 071123 |

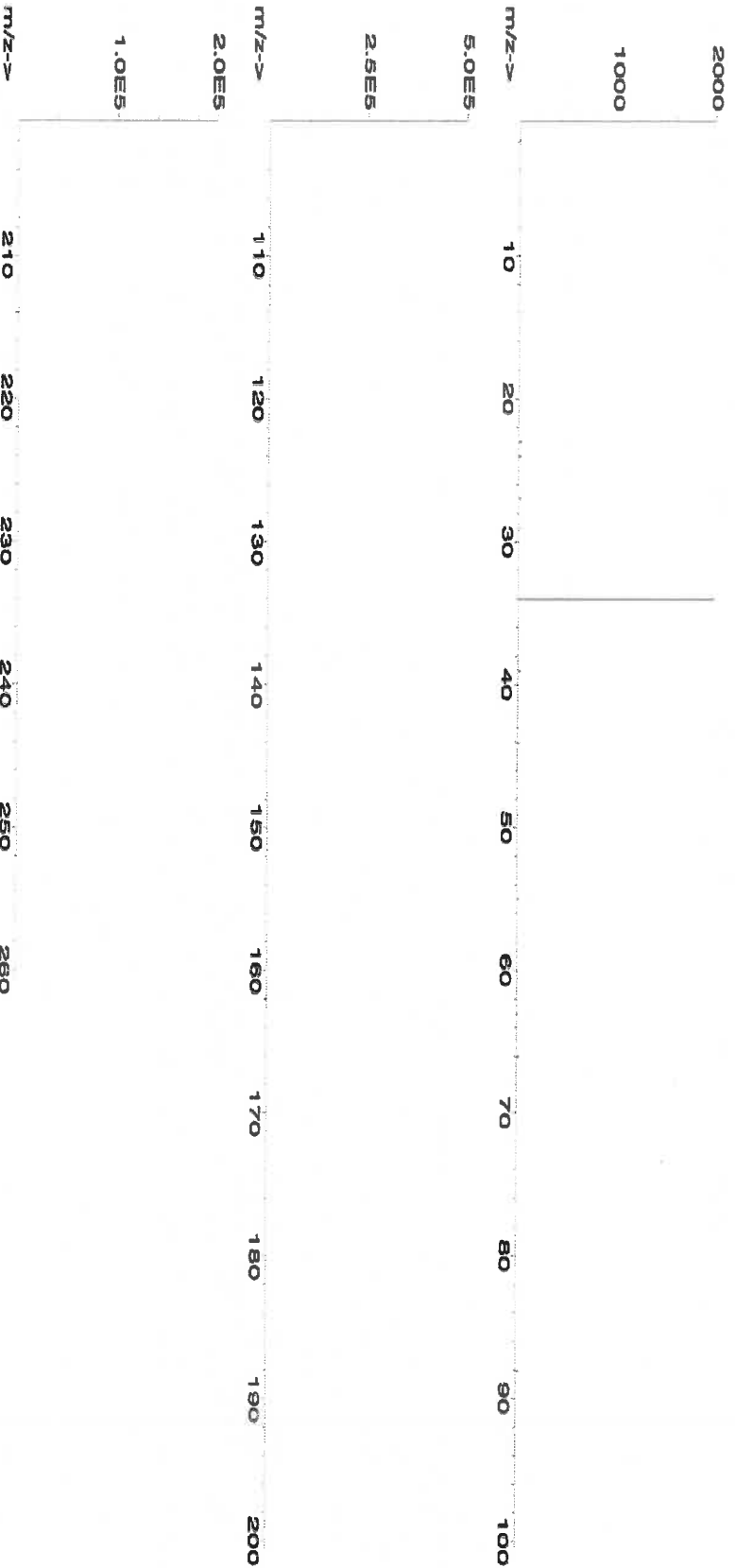
Expiration Date: **071126**  
Recommended Storage: **Ambient (20 °C)**  
Nominal Concentration (µg/mL): **10000**  
NIST Test Number: **6UTB**  
Weight shown below was diluted to (mL): **1999.48** **5E-05** Balance Uncertainty  
**0.058** Flask Uncertainty

**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. 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 rat 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).



**CERTIFIED WEIGHT REPORT:**

Part Number: **57014**  
Lot Number: **122023**  
Description: **Silicon (Si)**

Solvent: **24002546 Nitric Acid**

Lot #

Formulated By: *Aleah O Brady*  
Reviewed By: *Pedro L. Rentas*

122023

351

Expiration Date: **122026**

2% 40.0 (mL)

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): **1999.48 0.058 Flask Uncertainty**

**Expanded**

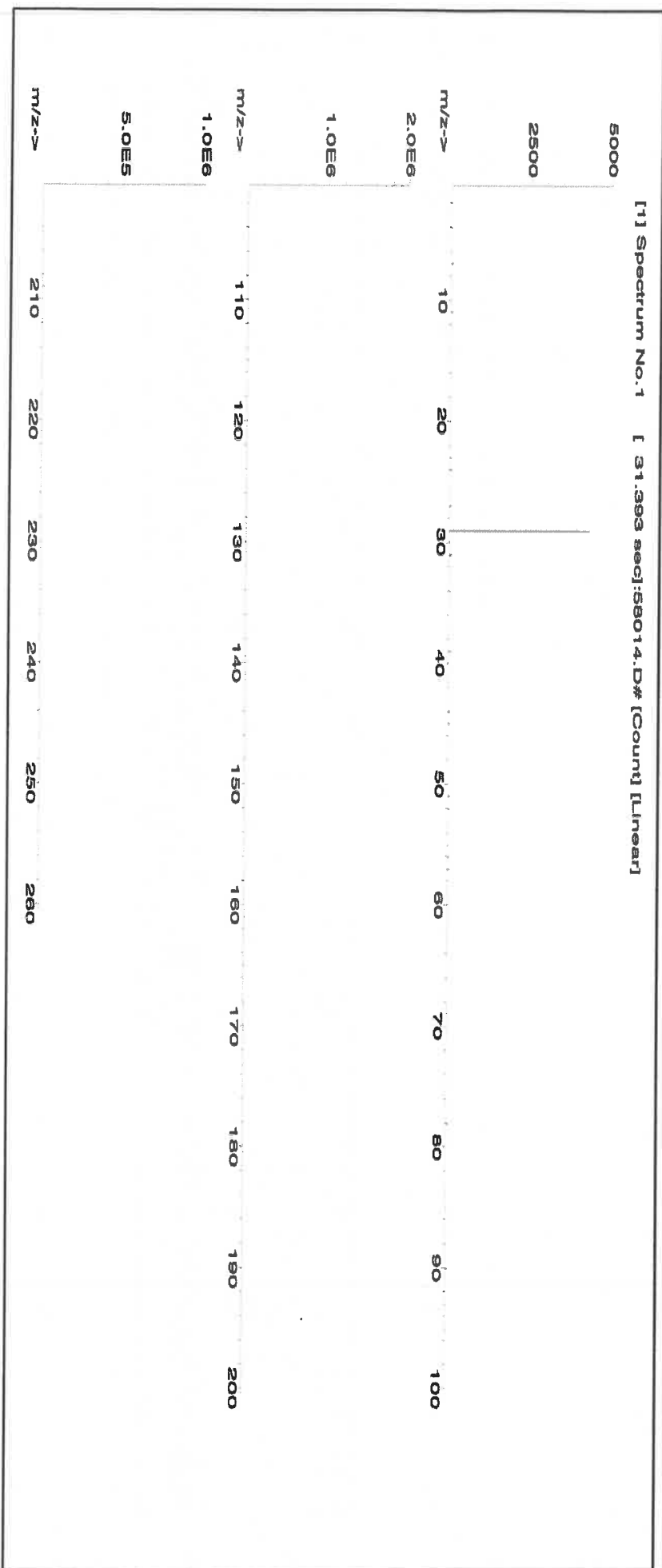
**SDS Information**

**Compound**

| RM# | Lot Number | Nominal Conc. (µg/mL) | Purity (%) | Uncertainty Purity (%) | Assay (%) | Target Weight (g) | Actual Weight (g) | Actual Conc. (µg/mL) | Uncertainty +/- (µg/mL) | CAS# | OSHA PEL (TWA) | LD50 | NIST SRM |
|-----|------------|-----------------------|------------|------------------------|-----------|-------------------|-------------------|----------------------|-------------------------|------|----------------|------|----------|
|-----|------------|-----------------------|------------|------------------------|-----------|-------------------|-------------------|----------------------|-------------------------|------|----------------|------|----------|

1. Ammonium hexafluorosilicate (Si) IN009 S1D08022A1 1000 99.999 0.10 14.4 13.8854 13.8855 1000.0 2.0 18919-19-0 2.5 mg/m3 off-mus 70 mg/kg NA

[1] Spectrum No. 1 [ 31.393 sec] 58014.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 | T     | Te | <0.02 | U  | <0.02 |
| As | <0.2  | Ce | <0.02 | Bu | <0.02 | In | <0.02 | Mg | <0.01 | Os | <0.02 | Ru | <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 | <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 | 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:** 58030  
**Lot Number:** 111623  
**Description:** Zinc (Zn)

**Solvent:** 24002546 Nitric Acid

**Lot #** R: 02109124 MS819

**Expiration Date:** 111626

**Recommended Storage:** Ambient (20 °C)

**Nominal Concentration (µg/mL):** 1000

**NIST Test Number:** 6UTB

**Weight shown below was diluted to (mL):** 3000.4

5E-05 Balance Uncertainty

0.06 Flask Uncertainty

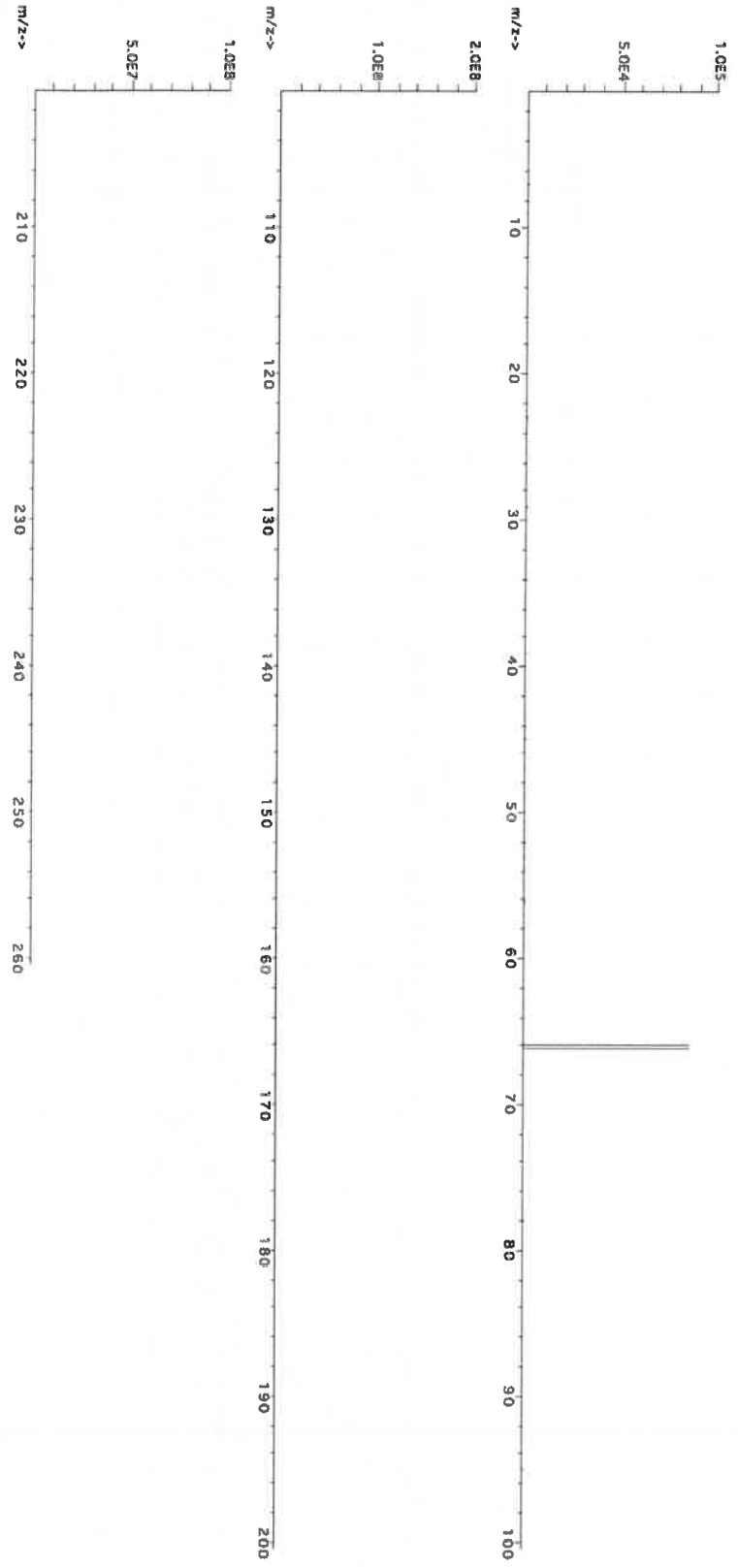
2% 60.0 (mL) Nitric Acid

|                |                  |
|----------------|------------------|
|                |                  |
| Formulated By: | Benson Chan      |
|                |                  |
| Reviewed By:   | Pedro L. Rientas |
| 111623         |                  |

| Compound | RM# | Lot Number | Nominal Conc. (µg/mL) | Purity (%) | Uncertainty Purity (%) | Assay (%) | Target Weight (g) | Actual Weight (g) | Actual Conc. (µg/mL) | Expanded Uncertainty +/- (µg/mL) | CAS# | OSHA PEL (TWA) | LDSO | NIST SRM |
|----------|-----|------------|-----------------------|------------|------------------------|-----------|-------------------|-------------------|----------------------|----------------------------------|------|----------------|------|----------|
|----------|-----|------------|-----------------------|------------|------------------------|-----------|-------------------|-------------------|----------------------|----------------------------------|------|----------------|------|----------|

1. Zinc nitrate hexahydrate (Zn) IN016 ZNE03021A1 1000 99.999 0.10 24.3 12.3475 12.3502 1000.2 2.0 10196-18-6 1 mg/mL 3168

[1] Spectrum No.1 [ 31.103 sec]58130.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 | 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).



**CERTIFIED WEIGHT REPORT:**

**Part Number:** 57015  
**Lot Number:** 091123  
**Description:** Phosphorous (P)

**Solvent:** 24002546 Nitric Acid

**Lot #**

R: 02109124 M5820

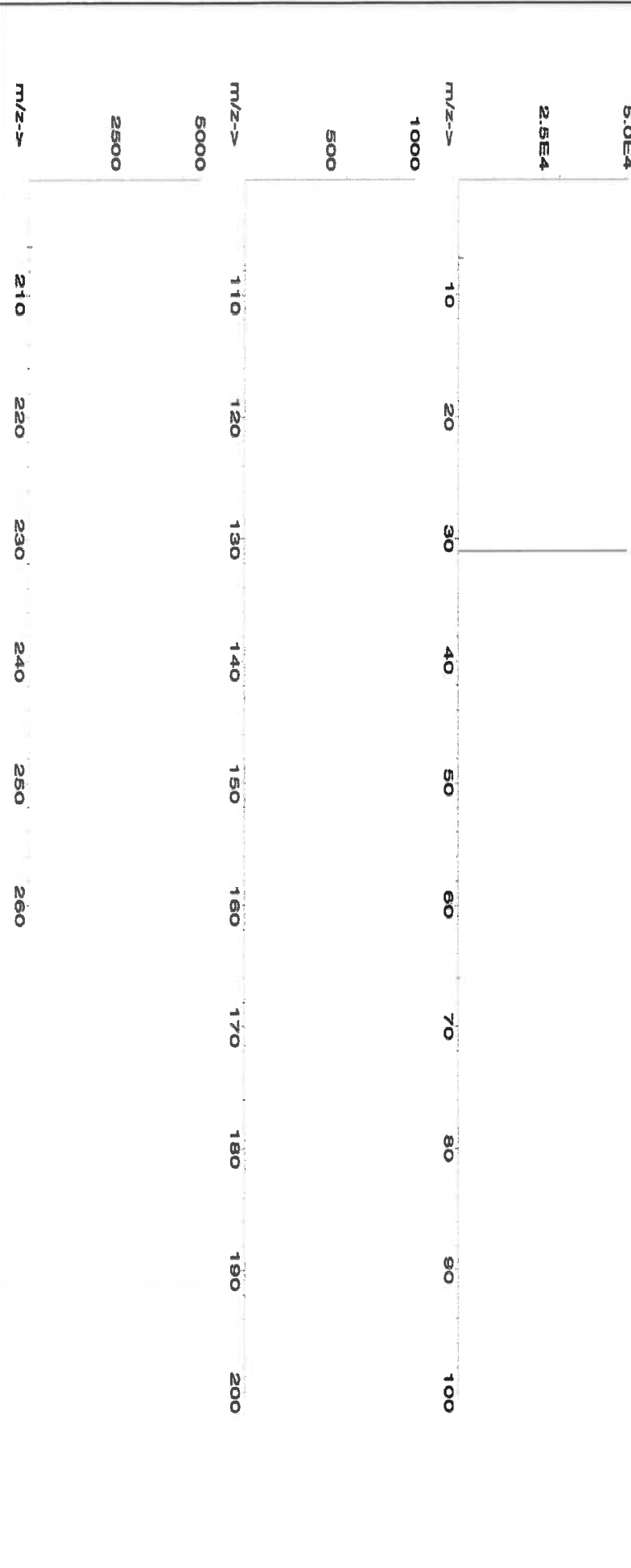
355

|                |                 |
|----------------|-----------------|
|                |                 |
| Formulated By: | Lawrence Barry  |
|                | 091123          |
|                |                 |
| Reviewed By:   | Pedro L. Rentas |
|                | 091123          |

**Expiration Date:** 091126  
**Recommended Storage:** Ambient (20 °C)  
**Nominal Concentration (µg/mL):** 1000  
**NIST Test Number:** 6LJB  
**Weight shown below was diluted to (mL):** 2000.02  
**5E-05 Balance Uncertainty**  
**0.058 Flask Uncertainty**

| 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) |
| 1. Ammonium dihydrogen phosphate (P) | IN008      | PV082019A1            | 1000       | 99.999                 | 0.10      | 27.5              | 7.2729            | 7.2730               | 1000.0                           |
|                                      |            |                       |            |                        |           |                   |                   |                      | 2.0                              |
|                                      |            |                       |            |                        |           |                   |                   |                      | 7722-76-1                        |
|                                      |            |                       |            |                        |           |                   |                   |                      | 5 mg/m3                          |
|                                      |            |                       |            |                        |           |                   |                   |                      | rl-rat >2000mg/kg                |
|                                      |            |                       |            |                        |           |                   |                   |                      | 3186                             |

[1] Spectrum No.1 [ 12.074 sec]:58115.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 | 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 | 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 | Sa | <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:

MS961 R-611/24

Part Number:

57028

Solvent: 24002546 Nitric Acid

Lot Number:

041124

Lot #

Description:

Nickel (NI)

2% 5.0 Nitric Acid (mL)

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

5E-05 Balance Uncertainty  
0.002 Flask Uncertainty

Weight shown below was diluted to (mL):

249.85

5E-05 Balance Uncertainty  
0.002 Flask Uncertainty

|                |                 |        |
|----------------|-----------------|--------|
| Formulated By: | Brian Geddes    | 041124 |
| Reviewed By:   | Pedro L. Rentas | 041124 |

SDS Information

Compound

Lot

Nominal

Purity (%)

Uncertainty (%)

Assay (%)

Target

Weight (g)

Actual

Weight (g)

Conc. (µg/mL)

Actual

Conc. (µg/mL)

Expanded

Uncertainty

± (µg/mL)

CAS#

OSHA PEL (TWA)

LD50

SRM

1. Nickel(II) nitrate hexahydrate (NI)

IN033 NIM052023A1

1000

99.999

0.10

20.2

1.2369

1.2369

1000.0

2.0

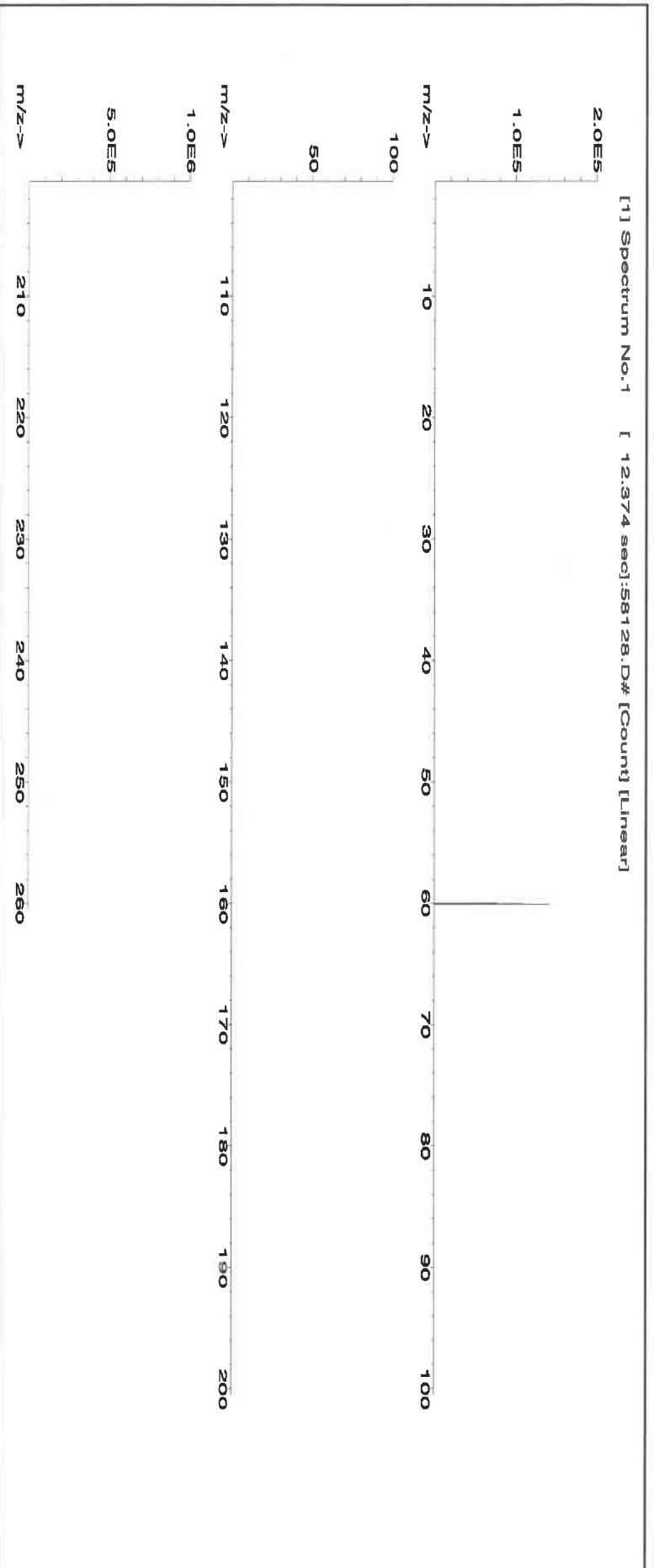
13478-00-7

1 mg/m3

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 | In | <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 | Gd | <0.02 | Ir | <0.02 | Mn | <0.02 | Pd | <0.02 | Rb | Rb | <0.02 | Na | <0.2  | Th | <0.02 | Yb | <0.02 |
| Bc | <0.01 | Cr | <0.02 | Ga | <0.02 | Fe | <0.2  | Hg | <0.2  | P  | <0.02 | Ru | 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 | 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 | 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**  
**M5962** **R10614124**



ANAB ISO 17034 Accredited  
AR-1539 Certificate Number  
https://AbsoluteStandards.com

**CERTIFIED WEIGHT REPORT:**

**Part Number:** 57034  
**Lot Number:** 060624  
**Description:** Selenium (Se)

**Lot #** 24002546  
**Solvent:** Nitric Acid

2.0% 40.0 (mL) Nitric Acid

**Expiration Date:** 060627

**Recommended Storage:** Ambient (20 °C)

**Nominal Concentration (µg/mL):** 1000

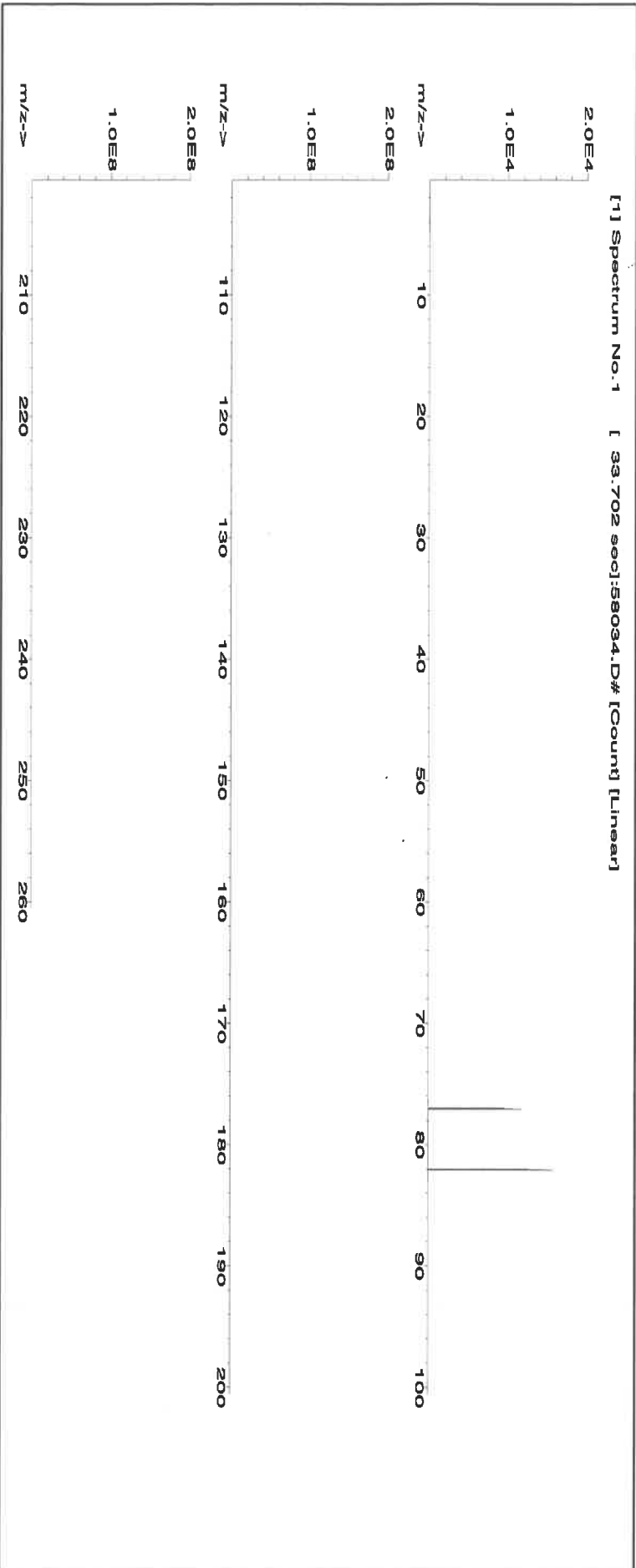
**NIST Test Number:** 6UTB

**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         |                 |

| 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. 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                             |





**Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):**

360

**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 | T     | Tb | 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 | 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 | 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 | 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 | 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 | Zn | <0.02 |
| B  | <0.02 | Cu | <0.02 | Au | <0.02 | Pb | <0.02 | Nd | <0.02 | K  | <0.2  | Sc | <0.02 |    | <0.02 | Ti | 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

M5976, M5977

R: 02/22/24

P: 800-669-6799/540-585-3030

F: 540-585-3012

info@inorganicventures.com

## 1.0 ACCREDITATION / REGISTRATION

INORGANIC VENTURES is accredited to ISO 17034, "General Requirements for the Competence of Reference Material Producers" and ISO/IEC 17025, "General Requirements for the Competence of Testing and Calibration Laboratories". Inorganic Ventures is also an ISO 9001 registered manufacturer (QSR Certificate Number QSR-1034).



## 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](http://www.inorganicventures.com/TCT)

**Atomic Weight; Valence; Coordination Number; Chemical Form in Solution** - 95.94 +6 6,7,8,9

[MoO<sub>4</sub>]-2(chemical form as received)

**Chemical Compatibility** -Mo is received in a NH<sub>4</sub>OH matrix giving the operator the option of using HCl or HF to stabilize acidic solutions. The [MoO<sub>4</sub>]-2 is soluble in concentrated HCl [MoOCl<sub>5</sub>]-2, dilute HF / HNO<sub>3</sub> [MoOF<sub>5</sub>]-2 and basic media [MoO<sub>4</sub>]-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 [MoO<sub>4</sub>]-2 chemical form.

**Stability** - 2-100 ppb levels stable (alone or mixed with all other metals that are at comparable levels) as the [MoOF<sub>5</sub>]-2 for months in 1% HNO<sub>3</sub> / LDPE container. 1-10,000 ppm single element solutions as the [MoO<sub>4</sub>]-2 chemically stable for years in 1% NH<sub>4</sub>OH in a LDPE container.

**Mo Containing Samples (Preparation and Solution)** -Metal (Soluble in HF / HNO<sub>3</sub> or hot dilute HCl); Oxide (soluble in HF or NH<sub>4</sub>OH) ; 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](mailto:info@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



# Certificate of Analysis

M5978, M5979



Refine your results. Redefine your industry.

300 Technology Drive  
Christiansburg, VA 24073 USA  
inorganicventures.com

P: 800-669-6799/540-585-3030  
F: 540-585-3012  
info@inorganicventures.com



**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).

## 1.0 ACCREDITATION / REGISTRATION

## 2.0 PRODUCT DESCRIPTION

Product Code: Single Analyte Custom Grade Solution

Catalog Number: CGT1

Lot Number: T2-T1719972

Matrix: 2% (v/v) HNO<sub>3</sub>

Value / Analyte(s): tr. HF

Starting Material: 1 000 µg/mL ea.

Starting Material: Titanium

Starting Material Lot#: T1 Metal

Starting Material Purity: 2094

Certified Value: 99.9975%

Density: 1.012 g/mL (measured at 20 ± 4 °C)

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:

$X_{CRM/RM} = \sum (w_i X_i) / \sum w_i$   
 $w_i = 1 / (u_{CRM/RM,i}^2)$   
 $u_{CRM/RM,i} = \sqrt{u_{CRM,i}^2 + u_{RM,i}^2}$   
 $u_{CRM,i} = \text{standard uncertainty of CRM method } i$   
 $u_{RM,i} = \text{standard uncertainty of RM method } i$

**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:

$X_{CRM/RM} = \bar{x}$   
 $\bar{x} = \text{mean of } n \text{ individual results}$   
 $u_{CRM} = \sqrt{u_{CRM,i}^2 + u_{RM,i}^2}$   
 $u_{CRM,i} = \text{standard uncertainty of CRM method } i$   
 $u_{RM,i} = \text{standard uncertainty of RM method } i$

**Characterization of CRM/RM by Two or More Methods**  
Expanded Uncertainty,  $U_{CRM/RM}$ , where two or more methods of characterization are used is the weighted mean of the results:

$U_{CRM/RM} = k \cdot u_{CRM/RM}$   
 $u_{CRM/RM} = \sqrt{u_{CRM,i}^2 + u_{RM,i}^2}$   
 $u_{CRM,i} = \text{standard uncertainty of CRM method } i$   
 $u_{RM,i} = \text{standard uncertainty of RM method } i$

**Characterization of CRM/RM by One Method**  
Expanded Uncertainty,  $U_{CRM/RM}$ , where one method of characterization is used is the mean of individual results:

$U_{CRM/RM} = k \cdot u_{CRM/RM}$   
 $u_{CRM/RM} = \sqrt{u_{CRM,i}^2 + u_{RM,i}^2}$   
 $u_{CRM,i} = \text{standard uncertainty of CRM method } i$   
 $u_{RM,i} = \text{standard uncertainty of RM method } i$

**Characterization of CRM/RM by Two or More Methods**  
Expanded Uncertainty,  $U_{CRM/RM}$ , where two or more methods of characterization are used is the weighted mean of the results:

$U_{CRM/RM} = k \cdot u_{CRM/RM}$   
 $u_{CRM/RM} = \sqrt{u_{CRM,i}^2 + u_{RM,i}^2}$   
 $u_{CRM,i} = \text{standard uncertainty of CRM method } i$   
 $u_{RM,i} = \text{standard uncertainty of RM method } i$

**Characterization of CRM/RM by One Method**  
Expanded Uncertainty,  $U_{CRM/RM}$ , where one method of characterization is used is the mean of individual results:

$U_{CRM/RM} = k \cdot u_{CRM/RM}$   
 $u_{CRM/RM} = \sqrt{u_{CRM,i}^2 + u_{RM,i}^2}$   
 $u_{CRM,i} = \text{standard uncertainty of CRM method } i$   
 $u_{RM,i} = \text{standard uncertainty of RM method } i$

**Characterization of CRM/RM by Two or More Methods**  
Expanded Uncertainty,  $U_{CRM/RM}$ , where two or more methods of characterization are used is the weighted mean of the results:

$U_{CRM/RM} = k \cdot u_{CRM/RM}$   
 $u_{CRM/RM} = \sqrt{u_{CRM,i}^2 + u_{RM,i}^2}$   
 $u_{CRM,i} = \text{standard uncertainty of CRM method } i$   
 $u_{RM,i} = \text{standard uncertainty of RM method } i$

**Characterization of CRM/RM by One Method**  
Expanded Uncertainty,  $U_{CRM/RM}$ , where one method of characterization is used is the mean of individual results:

$U_{CRM/RM} = k \cdot u_{CRM/RM}$   
 $u_{CRM/RM} = \sqrt{u_{CRM,i}^2 + u_{RM,i}^2}$   
 $u_{CRM,i} = \text{standard uncertainty of CRM method } i$   
 $u_{RM,i} = \text{standard uncertainty of RM method } i$

**Characterization of CRM/RM by Two or More Methods**  
Expanded Uncertainty,  $U_{CRM/RM}$ , where two or more methods of characterization are used is the weighted mean of the results:

$U_{CRM/RM} = k \cdot u_{CRM/RM}$   
 $u_{CRM/RM} = \sqrt{u_{CRM,i}^2 + u_{RM,i}^2}$   
 $u_{CRM,i} = \text{standard uncertainty of CRM method } i$   
 $u_{RM,i} = \text{standard uncertainty of RM method } i$

**Characterization of CRM/RM by One Method**  
Expanded Uncertainty,  $U_{CRM/RM}$ , where one method of characterization is used is the mean of individual results:

$U_{CRM/RM} = k \cdot u_{CRM/RM}$   
 $u_{CRM/RM} = \sqrt{u_{CRM,i}^2 + u_{RM,i}^2}$   
 $u_{CRM,i} = \text{standard uncertainty of CRM method } i$   
 $u_{RM,i} = \text{standard uncertainty of RM method } i$

**Characterization of CRM/RM by Two or More Methods**  
Expanded Uncertainty,  $U_{CRM/RM}$ , where two or more methods of characterization are used is the weighted mean of the results:

$U_{CRM/RM} = k \cdot u_{CRM/RM}$   
 $u_{CRM/RM} = \sqrt{u_{CRM,i}^2 + u_{RM,i}^2}$   
 $u_{CRM,i} = \text{standard uncertainty of CRM method } i$   
 $u_{RM,i} = \text{standard uncertainty of RM method } i$

**Characterization of CRM/RM by One Method**  
Expanded Uncertainty,  $U_{CRM/RM}$ , where one method of characterization is used is the mean of individual results:

$U_{CRM/RM} = k \cdot u_{CRM/RM}$   
 $u_{CRM/RM} = \sqrt{u_{CRM,i}^2 + u_{RM,i}^2}$   
 $u_{CRM,i} = \text{standard uncertainty of CRM method } i$   
 $u_{RM,i} = \text{standard uncertainty of RM method } i$

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 UHPA-filtered Clean Room. An UHPA-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 |
| M Al | 0.000872 | O Fe     | <    | 0.000872 | O Ni     | <    | 0.000268 | M Nb     | <    | 0.000268 | O Sr | < | 0.000268 |
| M As | 0.008586 | M Ga     | <    | 0.000268 | O Nd     | <    | 0.000268 | M Sm     | <    | 0.000268 | O Si | < | 0.004735 |
| M Au | 0.004577 | M Cd     | <    | 0.000268 | O Pb     | <    | 0.000268 | M Sn     | <    | 0.000268 | O Ti | < | 0.000268 |
| O B  | 0.008929 | M Ge     | <    | 0.000268 | O Pt     | <    | 0.000268 | M Ta     | <    | 0.000268 | O V  | < | 0.000268 |
| M Ba | 0.002683 | M Hf     | <    | 0.002683 | O P      | <    | 0.002683 | M Tl     | <    | 0.002683 | O W  | < | 0.000473 |
| M Be | 0.005366 | M Hg     | <    | 0.003231 | M Pb     | <    | 0.001073 | M Th     | <    | 0.000268 | O Y  | < | 0.002146 |
| M Bi | 0.001609 | M Ho     | <    | 0.000268 | M Pd     | <    | 0.000268 | M Tm     | <    | 0.000268 | O Zr | < | 0.003560 |
| O Ca | 0.000676 | M In     | <    | 0.002683 | M Pr     | <    | 0.000268 | M U      | <    | 0.000268 |      |   |          |
| M Cd | 0.000268 | M Ir     | <    | 0.000268 | M Pt     | <    | 0.000536 | M Vb     | <    | 0.000536 |      |   |          |
| M Co | 0.000268 | M K      | <    | 0.001172 | M Rh     | <    | 0.000268 |          |      |          |      |   |          |
| M Cr | 0.000752 | O Li     | <    | 0.002728 | M Re     | <    | 0.000268 |          |      |          |      |   |          |
| M Cu | 0.010890 | O Mg     | <    | 0.005445 | M Sb     | <    | 0.006976 |          |      |          |      |   |          |
| M Dy | 0.000268 | O Mn     | <    | 0.003267 | M Sc     | <    | 0.004900 |          |      |          |      |   |          |
| M Er | 0.000268 | M Mo     | <    | 0.000774 | O S      | <    | 0.006976 |          |      |          |      |   |          |

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](http://www.inorganicventures.com/TCT)

**Atomic Weight; Valence:** Soluble in concentrated HCl, HF, H<sub>3</sub>PO<sub>4</sub>, H<sub>2</sub>SO<sub>4</sub> and HNO<sub>3</sub>. Avoid neutral to basic media. Unstable at ppm levels with metals that would pull F<sup>-</sup> 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)<sub>6</sub>-2 for months in 1% HNO<sub>3</sub> / LDPE container. - 1-10,000 ppm single element solutions as the Ti(F)<sub>6</sub>-2 chemically stable for years in 2-5% HNO<sub>3</sub> / trace HF in an LDPE container.

**Ti Containing Samples (Preparation and Solution) - Metal (Soluble in H<sub>2</sub>O / HF caution - powder reacts violently):** Oxide - low temperature history anatase or rutile (Dissolved by heating in 1:1:1 H<sub>2</sub>O / HF / H<sub>2</sub>SO<sub>4</sub>); K<sub>2</sub>SiO<sub>3</sub> - no KF if silica not present); Organic Matrices (Dry ash at 450°C in P10 and dissolve by heating with 1:1:1 H<sub>2</sub>O / HF / H<sub>2</sub>SO<sub>4</sub> or fuse ash with pyrosulfate if oxide is as plastic pigment and likely in brookite crystaline form).

**Atomic Spectroscopic Information (ICP-OES D.L.s are given as radial/axial view):**

| Technique/Line     | Estimated D.L.         | 14 ppt | N/A | Order | Interferences (underlined indicates severe)                       |
|--------------------|------------------------|--------|-----|-------|-------------------------------------------------------------------|
| ICP-MS 48 amu      |                        |        |     |       |                                                                   |
| ICP-OES 323.452 nm | 0.0054 / 0.00092 µg/mL |        |     |       | 14N16O18O, 14N17N2, 36Ar12C, 48Ca, [96X=2 (where X = Zr, Mo, Ru)] |
| ICP-OES 334.941 nm | 0.0038 / 0.00028 µg/mL |        |     |       | Ce, Ar, Ni                                                        |
| ICP-OES 336.121 nm | 0.0053 / 0.00034 µg/mL |        |     |       | W, Mo, Co                                                         |

#### HAZARDOUS INFORMATION

HF Note: This standard should not be prepared or stored in glass.

#### HOMOGENEITY

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.
- 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.

#### 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, Chesapeake, VA 24073, USA; Telephone: 800.868.6786; 540.565.3030; Fax: 540.565.3012; [info@inorganicventures.com](mailto: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 Kozlikowski  
Manager, Quality Control

*TD9782*

Certifying Officer:

Paul Gaines  
Chairman / Senior Technical Director

*Paul R. Gaines*



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 #

24002546

Solvent:

Nitric Acid  
2.0% 40.0 Nitric Acid  
(mL)

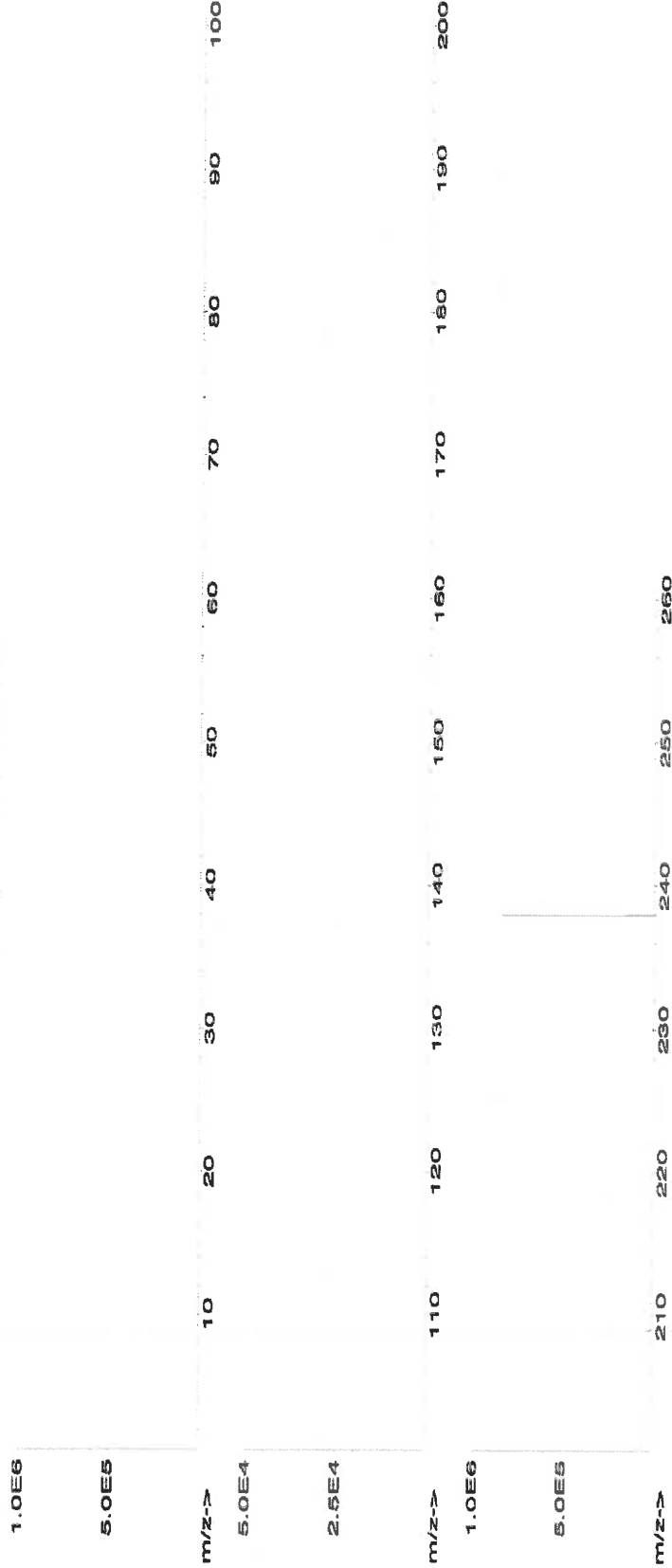
|                          |                   |
|--------------------------|-------------------|
| <i>Giovanni Esposito</i> |                   |
| Formulated By:           | Giovanni Esposito |
| <i>Pedro L. Rentas</i>   |                   |
| Reviewed By:             | Pedro L. Rentas   |

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 3164

[1] Spectrum No.1 [ 23.264 sec]:57092.D# [Count] [Linear]



369



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 | <0.02 | 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 | 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:

*[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).

370

*[Handwritten notes]*



145983

R: 6/11/24

CERTIFIED WEIGHT REPORT:

Part Number:  
Lot Number:  
Description:

57040  
071423  
Zirconium (Zr)

Expiration Date:  
Recommended Storage:  
Nominal Concentration (µg/mL):  
NIST Test Number:

071426  
Ambient (20 °C)  
1000  
6UTB

Volume shown below was diluted to (mL): 2000.02

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) 1000.0  
Initial Conc. (µg/mL) 10000.3  
Nominal Conc. (µg/mL) 1000  
CAS# 13520-92-8  
LD50 NA  
NIST SRM 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

[1] Spectrum No.1 [ 41.153 sec]:57040.D# [Count] [Linear]

1.OE6

5.OE5

m/z-->

1.OE8

5.OE7

m/z-->

1.OE8

5.OE7

m/z-->

371



**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 | 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 |       |    |       |    |       |    |       |    |       |
|    |       |    |       |    |       |    |       |    |       | T                    |       |    |       |    |       |    |       |    |       |

**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).

372

# Certificate of Analysis

300 Technology Drive  
Christiansburg, VA 24073 USA  
inorganicventures.com

*R: 2/22/2024*  
*M5999*

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: CLPP-SPK-1  
Lot Number: T2-MEB721963  
Matrix: 7% (v/v) HNO<sub>3</sub>  
Value / Analyte(s):  
2 000 µg/mL ea: Aluminum, Barium,  
1 000 µg/mL ea: Iron,  
500 µg/mL ea: Manganese, Nickel,  
Vanadium, Zinc,  
Cobalt,  
250 µg/mL ea: Copper,  
200 µg/mL ea: Chromium,  
50 µg/mL ea: Beryllium, Silver

## 3.0 CERTIFIED VALUES AND UNCERTAINTIES

| ANALYTE       | CERTIFIED VALUE    | ANALYTE       | CERTIFIED VALUE    |
|---------------|--------------------|---------------|--------------------|
| Aluminum, Al  | 2 000 ± 7 µg/mL    | Barium, Ba    | 2 000 ± 9 µg/mL    |
| Beryllium, Be | 50.00 ± 0.26 µg/mL | Chromium, Cr  | 200.0 ± 1.1 µg/mL  |
| Cobalt, Co    | 500.0 ± 2.4 µg/mL  | Copper, Cu    | 250.0 ± 1.0 µg/mL  |
| Iron, Fe      | 1 000 ± 4 µg/mL    | Manganese, Mn | 500.0 ± 2.0 µg/mL  |
| Nickel, Ni    | 500.0 ± 2.2 µg/mL  | Silver, Ag    | 50.00 ± 0.22 µg/mL |
| Vanadium, V   | 500.0 ± 2.2 µg/mL  | Zinc, Zn      | 500.0 ± 2.2 µg/mL  |

Density: 1.070 g/mL (measured at 20 ± 4 °C)

Assay Information:

| ANALYTE | METHOD      | NIST SRM# | SRM LOT#     |
|---------|-------------|-----------|--------------|
| Ag      | ICP Assay   | 3151      | 160729       |
| Ag      | Volhard     | 999c      | 999c         |
| Ag      | Calculated  |           | See Sec. 4.2 |
| Al      | ICP Assay   | 3101a     | 140903       |
| Al      | EDTA        | 928       | 928          |
| Ba      | ICP Assay   | 3104a     | 140909       |
| Ba      | Gravimetric |           | See Sec. 4.2 |
| Be      | ICP Assay   | 3105a     | 090514       |
| Be      | Calculated  |           | See Sec. 4.2 |
| 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          |
| Mn      | ICP Assay   | 3132      | 050429       |
| Mn      | EDTA        | 928       | 928          |
| Ni      | ICP Assay   | 3136      | 120619       |
| Ni      | EDTA        | 928       | 928          |
| V       | IC Assay    | 3165      | 160906       |
| V       | EDTA        | 928       | 928          |
| Zn      | ICP Assay   | 3168a     | 120629       |
| Zn      | EDTA        | 928       | 928          |

The following equations are used in the calculation of the certified value and the uncertainty. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of  $k = 2$ .

#### Characterization of CRM/RM by Two or More Methods

Certified Value,  $X_{\text{CRM/RM}}$ , 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:

$$w_i = (1/u_{\text{char } i}^2) / (\sum (1/u_{\text{char } i}^2))$$

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char}}^2 + u_{\text{bb}}^2 + u_{\text{tts}}^2 + u_{\text{ts}}^2)^{1/2}$$

$k$  = 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

$u_{\text{bb}}$  = bottle to bottle homogeneity standard uncertainty

$u_{\text{tts}}$  = long term stability standard uncertainty (storage)

$u_{\text{ts}}$  = 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

$$\text{CRM/RM Expanded Uncertainty } (\pm) = U_{\text{CRM/RM}} = k (u_{\text{char } a}^2 + u_{\text{bb}}^2 + u_{\text{tts}}^2 + u_{\text{ts}}^2)^{1/2}$$

$k$  = coverage factor = 2

$u_{\text{char } a}$  = the errors from characterization

$u_{\text{bb}}$  = bottle to bottle homogeneity standard uncertainty

$u_{\text{tts}}$  = long term stability standard uncertainty (storage)

$u_{\text{ts}}$  = 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](http://www.inorganicventures.com/TCT)

**Note:** This solution contains Silver (Ag), please refer to our Sample Preparation Guide for more information.

<https://www.inorganicventures.com/sample-preparation-guide/samples-containing-silver>

### **8.0 HAZARDOUS INFORMATION**

- Please refer to the Safety Data Sheet for information regarding this CRM/RM.

### **9.0 HOMOGENEITY**

- This solution was mixed according to an in-house procedure and is guaranteed to be homogeneous. Homogeneity data indicate that the end user should take a minimum sample size of 0.2 mL to assure homogeneity.

### **10.0 QUALITY STANDARD DOCUMENTATION**

#### **10.1 ISO 9001 Quality Management System Registration**

- QSR Certificate Number QSR-1034

#### **10.2 ISO/IEC 17025 "General Requirements for the Competence of Testing and Calibration Laboratories"**

- Chemical Testing - Accredited / A2LA Certificate Number 883.01

#### **10.3 ISO 17034 "General Requirements for the Competence of Reference Material Producers"**

- Reference Material Producer - Accredited / A2LA Certificate Number 883.02

Inorganic Ventures, 300 Technology Drive, Christiansburg, Va. 24073, USA; Telephone: 800.669.6799; 540.585.3030, Fax: 540.585.3012; [inorganicventures.com](http://inorganicventures.com); [info@inorganicventures.com](mailto:info@inorganicventures.com)

## 11.0 CERTIFICATION, LOT EXPIRATION AND PERIOD OF VALIDITY

### 11.1 Certification Issue Date

July 27, 2022

- The certification is valid within the measurement uncertainty specified provided the CRM/RM is stored and handled in accordance with instructions given in Sec 7.1. This certification is nullified if instructions in Sec 7.1 are not followed or if the CRM/RM is damaged, contaminated, or otherwise modified.

### 11.2 Lot Expiration Date

- July 27, 2027

- The date after which this CRM/RM should not be used.
- The lot expiration date reflects the period of time that the stability of a CRM/RM can be supported by long term stability studies conducted on properly stored and handled CRM/RMs. Lot expiration is limited primarily by transpiration (loss of water from the solution) and infrequently by chemical stability.

### 11.3 Period of Validity

- Sealed TCT Bag Open Date: \_\_\_\_\_

- This CRM/RM should not be used longer than one year (or six months in the case of a 30 mL bottle) from the date of opening the aluminized bag or after the date given in Sec. 11.2, whichever comes first. This is contingent upon the CRM/RM being stored and handled in accordance with the instructions given in Sec. 7.1.

## 12.0 NAMES AND SIGNATURES OF CERTIFYING OFFICERS

### Certificate Approved By:

Thomas Kozikowski  
Manager, Quality Control



### Certifying Officer:

Paul Gaines  
Chairman / Senior Technical Director





**Certified Reference Material CRM**  
R: 01/03/24 M6033



**CERTIFIED WEIGHT REPORT:**

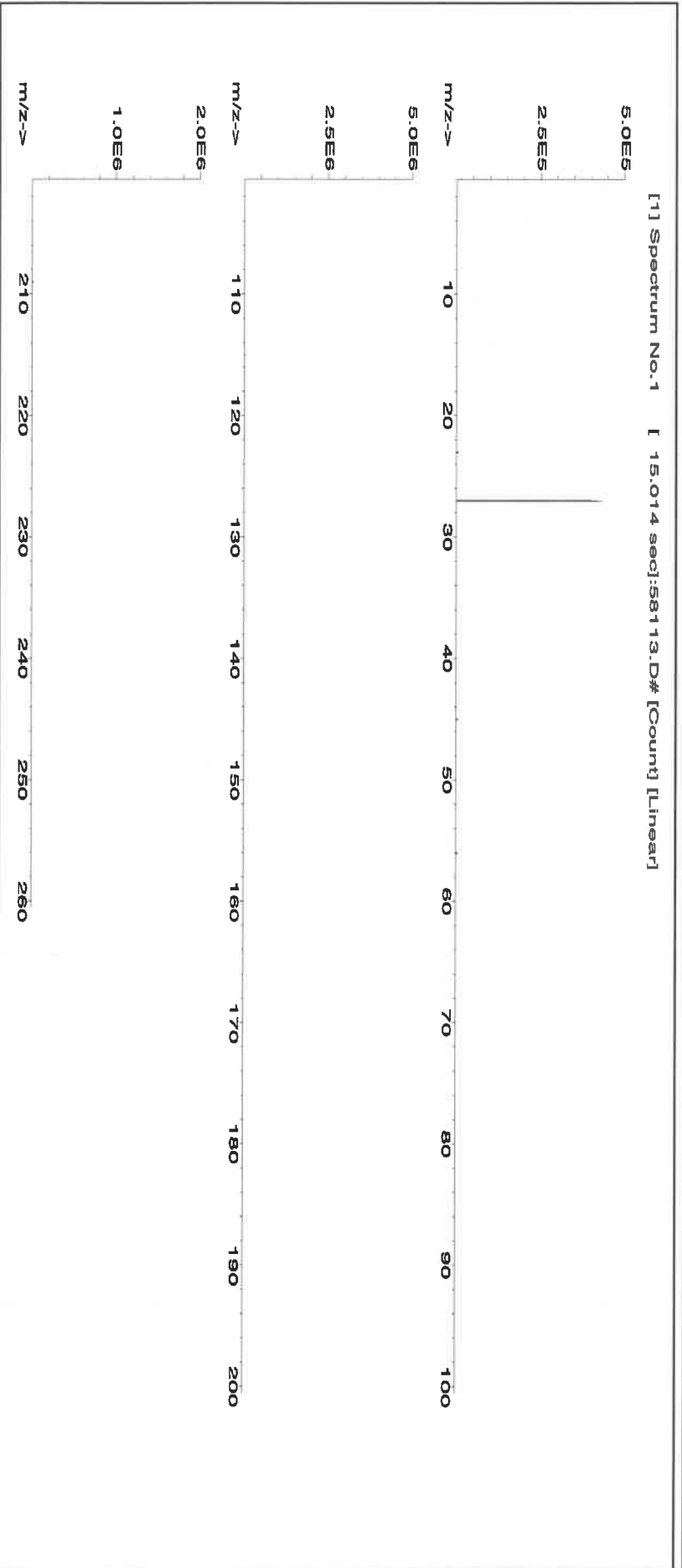
**Part Number:** 58113  
**Lot Number:** 011623  
**Description:** Aluminum (Al)  
**Expiration Date:** 011626  
**Recommended Storage:** Ambient (20 °C)  
**Nominal Concentration (µg/mL):** 10000  
**NIST Test Number:** 6LUTB  
**Weight shown below was diluted to (mL):** 2000.02  
**Solvent:** 20510011 Nitric Acid  
**Lot #**  
**2%** 40.0 (mL) Nitric Acid  
**5E-05** Balance Uncertainty  
**0.058** Flask Uncertainty

|                          |                        |
|--------------------------|------------------------|
| <i>Giovanni Esposito</i> |                        |
| Formulated By:           | Giovanni Esposito      |
| Reviewed By:             | <i>Pedro L. Rentas</i> |
|                          | Pedro L. Rentas        |
|                          | 011623                 |

**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 |
|----------|-----|------------|-----------------------|------------|------------------------|-----------|-------------------|-------------------|----------------------|----------------------------------|------|----------------|------|----------|
|----------|-----|------------|-----------------------|------------|------------------------|-----------|-------------------|-------------------|----------------------|----------------------------------|------|----------------|------|----------|

1. Aluminum nitrate nonahydrate (Al) IN022 ALUM12021A1 10000 99.999 0.10 7.30 273.9779 274.0078 10001.1 20.0 7784-27-2 2 mg/m3 or rat 3671 mg/kg 3101a



Hydrochloric Acid, 36.5–38.0%  
BAKER INSTRA-ANALYZED® Reagent  
For Trace Metal Analysis

 **avantor™**



Material No.: 9530-33  
Batch No.: 24D1562005  
Manufactured Date: 2024-03-18  
Retest Date: 2029-03-17  
Revision No.: 0

Received! — 08/01/2024  
pater  
m6039  
m6040

## Certificate of Analysis

| Test                                      | Specification | Result      |
|-------------------------------------------|---------------|-------------|
| ACS – Assay (as HCl) (by acid–base titrn) | 36.5 – 38.0 % | 37.6 %      |
| ACS – Color (APHA)                        | ≤ 10          | 5           |
| ACS – Residue after Ignition              | ≤ 3 ppm       | < 1 ppm     |
| ACS – Specific Gravity at 60°/60°F        | 1.185 – 1.192 | 1.192       |
| ACS – Bromide (Br)                        | ≤ 0.005 %     | < 0.005 %   |
| ACS – Extractable Organic Substances      | ≤ 5 ppm       | < 1 ppm     |
| ACS – Free Chlorine (as Cl <sub>2</sub> ) | ≤ 0.5 ppm     | < 0.5 ppm   |
| Phosphate (PO <sub>4</sub> )              | ≤ 0.05 ppm    | 0.03 ppm    |
| Sulfate (SO <sub>4</sub> )                | ≤ 0.5 ppm     | < 0.3 ppm   |
| Sulfite (SO <sub>3</sub> )                | ≤ 0.8 ppm     | 0.3 ppm     |
| Ammonium (NH <sub>4</sub> )               | ≤ 3 ppm       | < 1 ppm     |
| Trace Impurities – Arsenic (As)           | ≤ 0.010 ppm   | < 0.003 ppm |
| Trace Impurities – Aluminum (Al)          | ≤ 10.0 ppb    | < 5.0 ppb   |
| Arsenic and Antimony (as As)              | ≤ 5.0 ppb     | < 3.0 ppb   |
| Trace Impurities – Barium (Ba)            | ≤ 1.0 ppb     | < 1.0 ppb   |
| Trace Impurities – Beryllium (Be)         | ≤ 1.0 ppb     | < 1.0 ppb   |
| Trace Impurities – Bismuth (Bi)           | ≤ 10.0 ppb    | < 10.0 ppb  |
| Trace Impurities – Boron (B)              | ≤ 20.0 ppb    | 2.2 ppb     |
| Trace Impurities – Cadmium (Cd)           | ≤ 1.0 ppb     | < 1.0 ppb   |
| Trace Impurities – Calcium (Ca)           | ≤ 50.0 ppb    | 31.0 ppb    |
| Trace Impurities – Chromium (Cr)          | ≤ 1.0 ppb     | 0.5 ppb     |
| Trace Impurities – Cobalt (Co)            | ≤ 1.0 ppb     | 0.2 ppb     |
| Trace Impurities – Copper (Cu)            | ≤ 1.0 ppb     | < 0.1 ppb   |
| Trace Impurities – Gallium (Ga)           | ≤ 1.0 ppb     | < 0.2 ppb   |
| Trace Impurities – Germanium (Ge)         | ≤ 3.0 ppb     | < 2.0 ppb   |
| Trace Impurities – Gold (Au)              | ≤ 4.0 ppb     | < 0.2 ppb   |
| Heavy Metals (as Pb)                      | ≤ 100 ppb     | < 50 ppb    |
| Trace Impurities – Iron (Fe)              | ≤ 15 ppb      | 3 ppb       |

>>> Continued on page 2 >>>

Hydrochloric Acid, 36.5–38.0%  
BAKER INSTRA-ANALYZED® Reagent  
For Trace Metal Analysis

 **avantorsm**



Material No.: 9530-33  
Batch No.: 24D1562005

| Test                                                   | Specification | Result     |
|--------------------------------------------------------|---------------|------------|
| Trace Impurities – Lead (Pb)                           | ≤ 1.0 ppb     | < 0.2 ppb  |
| Trace Impurities – Lithium (Li)                        | ≤ 1.0 ppb     | < 0.1 ppb  |
| Trace Impurities – Magnesium (Mg)                      | ≤ 10.0 ppb    | 2.2 ppb    |
| Trace Impurities – Manganese (Mn)                      | ≤ 1.0 ppb     | < 0.2 ppb  |
| Trace Impurities – Mercury (Hg)                        | ≤ 0.5 ppb     | < 0.1 ppb  |
| Trace Impurities – Molybdenum (Mo)                     | ≤ 10.0 ppb    | < 5.0 ppb  |
| Trace Impurities – Nickel (Ni)                         | ≤ 4.0 ppb     | 0.2 ppb    |
| Trace Impurities – Niobium (Nb)                        | ≤ 1.0 ppb     | < 0.2 ppb  |
| Trace Impurities – Potassium (K)                       | ≤ 9.0 ppb     | < 1.0 ppb  |
| Trace Impurities – Selenium (Se), For Information Only |               | < 1.0 ppb  |
| Trace Impurities – Silicon (Si)                        | ≤ 100.0 ppb   | < 10.0 ppb |
| Trace Impurities – Silver (Ag)                         | ≤ 1.0 ppb     | < 0.3 ppb  |
| Trace Impurities – Sodium (Na)                         | ≤ 100.0 ppb   | 2.0 ppb    |
| Trace Impurities – Strontium (Sr)                      | ≤ 1.0 ppb     | < 0.2 ppb  |
| Trace Impurities – Tantalum (Ta)                       | ≤ 1.0 ppb     | < 0.9 ppb  |
| Trace Impurities – Thallium (Tl)                       | ≤ 5.0 ppb     | < 2.0 ppb  |
| Trace Impurities – Tin (Sn)                            | ≤ 5.0 ppb     | < 0.4 ppb  |
| Trace Impurities – Titanium (Ti)                       | ≤ 1.0 ppb     | 0.2 ppb    |
| Trace Impurities – Vanadium (V)                        | ≤ 1.0 ppb     | < 0.2 ppb  |
| Trace Impurities – Zinc (Zn)                           | ≤ 5.0 ppb     | < 0.2 ppb  |
| Trace Impurities – Zirconium (Zr)                      | ≤ 1.0 ppb     | < 0.1 ppb  |

>>> Continued on page 3 >>>

Hydrochloric Acid, 36.5–38.0%  
BAKER INSTRA-ANALYZED® Reagent  
For Trace Metal Analysis

 **avantor™**



Material No.: 9530-33  
Batch No.: 24D1562005

| Test | Specification | Result |
|------|---------------|--------|
|------|---------------|--------|

For Laboratory, Research, or Manufacturing Use  
Product Information (not specifications):  
Appearance (clear, fuming liquid)  
Meets ACS Specifications  
Storage Condition: Store below 25 °C.

Country of Origin: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Croak  
Director Quality Operations, Bioscience Production

380

*Revised 8/19/24, M6055*

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: IV-STOCK-12  
Lot Number: U2-MEB734294  
Matrix: 5% (v/v) HNO<sub>3</sub>  
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

$u_{\text{bb}}$  = bottle to bottle homogeneity standard uncertainty

$u_{\text{ts}}$  = long term stability standard uncertainty (storage)

$u_{\text{ts}}$  = 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

$u_{\text{bb}}$  = bottle to bottle homogeneity standard uncertainty

$u_{\text{ts}}$  = long term stability standard uncertainty (storage)

$u_{\text{ts}}$  = 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](http://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



Hydrochloric Acid, 36.5-38.0%  
BAKER INSTRA-ANALYZED® Reagent  
For Trace Metal Analysis

avantor™



R → 16/13/24  
Met dig

M 6121

Material No.: 9530-33  
Batch No.: 0000275677  
Manufactured Date: 2020/12/16  
Retest Date: 2025/12/15  
Revision No: 1

## Certificate of Analysis

| Test                                      | Specification | Result  |
|-------------------------------------------|---------------|---------|
| ACS - Assay (as HCl) (by acid-base titrn) | 36.5 - 38.0 % | 37.6    |
| ACS - Color (APHA)                        | <= 10         | 5       |
| ACS - Residue after Ignition              | <= 3 ppm      | 1       |
| ACS - Specific Gravity at 60°/60°F        | 1.185 - 1.192 | 1.190   |
| ACS - Bromide (Br)                        | <= 0.005 %    | < 0.005 |
| ACS - Extractable Organic Substances      | <= 5 ppm      | 1       |
| ACS - Free Chlorine (as Cl <sub>2</sub> ) | <= 0.5 ppm    | < 0.5   |
| Phosphate (PO <sub>4</sub> )              | <= 0.05 ppm   | < 0.03  |
| Sulfate (SO <sub>4</sub> )                | <= 0.5 ppm    | < 0.3   |
| Sulfite (SO <sub>3</sub> )                | <= 0.8 ppm    | 0.3     |
| Ammonium (NH <sub>4</sub> )               | <= 3 ppm      | < 1     |
| Trace Impurities - Arsenic (As)           | <= 0.010 ppm  | < 0.003 |
| Trace Impurities - Aluminum (Al)          | <= 10.0 ppb   | < 0.2   |
| Arsenic and Antimony (as As)              | <= 5 ppb      | < 3     |
| Trace Impurities - Barium (Ba)            | <= 1.0 ppb    | < 0.2   |
| Trace Impurities - Beryllium (Be)         | <= 1.0 ppb    | < 0.2   |
| Trace Impurities - Bismuth (Bi)           | <= 10.0 ppb   | < 1.0   |
| Trace Impurities - Boron (B)              | <= 20.0 ppb   | < 5.0   |
| Trace Impurities - Cadmium (Cd)           | <= 1.0 ppb    | < 0.3   |
| Trace Impurities - Calcium (Ca)           | <= 50.0 ppb   | 29.7    |
| Trace Impurities - Chromium (Cr)          | <= 1.0 ppb    | < 0.4   |
| Trace Impurities - Cobalt (Co)            | <= 1.0 ppb    | < 0.3   |
| Trace Impurities - Copper (Cu)            | <= 1.0 ppb    | < 0.1   |
| Trace Impurities - Gallium (Ga)           | <= 1.0 ppb    | < 0.2   |

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC

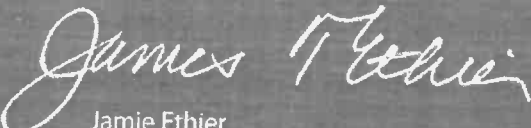
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

385

| Test                                                   | Specification | Result |
|--------------------------------------------------------|---------------|--------|
| Trace Impurities – Germanium (Ge)                      | <= 3.0 ppb    | < 2.0  |
| Trace Impurities – Gold (Au)                           | <= 4.0 ppb    | < 0.2  |
| Heavy Metals (as Pb)                                   | <= 100 ppb    | < 50   |
| Trace Impurities – Iron (Fe)                           | <= 15.0 ppb   | < 1    |
| Trace Impurities – Lead (Pb)                           | <= 1.0 ppb    | < 0.5  |
| Trace Impurities – Lithium (Li)                        | <= 1.0 ppb    | 0.2    |
| Trace Impurities – Magnesium (Mg)                      | <= 10.0 ppb   | 0.4    |
| Trace Impurities – Manganese (Mn)                      | <= 1.0 ppb    | < 0.4  |
| Trace Impurities – Mercury (Hg)                        | <= 0.5 ppb    | 0.1    |
| Trace Impurities – Molybdenum (Mo)                     | <= 10.0 ppb   | < 5.0  |
| Trace Impurities – Nickel (Ni)                         | <= 4.0 ppb    | < 0.3  |
| Trace Impurities – Niobium (Nb)                        | <= 1.0 ppb    | < 0.2  |
| Trace Impurities – Potassium (K)                       | <= 9.0 ppb    | < 2.0  |
| Trace Impurities – Selenium (Se), For Information Only | ppb           | 1.0    |
| Trace Impurities – Silicon (Si)                        | <= 100.0 ppb  | < 10.0 |
| Trace Impurities – Silver (Ag)                         | <= 1.0 ppb    | < 0.3  |
| Trace Impurities – Sodium (Na)                         | <= 100.0 ppb  | < 5.0  |
| Trace Impurities – Strontium (Sr)                      | <= 1.0 ppb    | < 0.2  |
| Trace Impurities – Tantalum (Ta)                       | <= 1.0 ppb    | < 0.9  |
| Trace Impurities – Thallium (Tl)                       | <= 5.0 ppb    | < 2.0  |
| Trace Impurities – Tin (Sn)                            | <= 5.0 ppb    | < 0.8  |
| Trace Impurities – Titanium (Ti)                       | <= 1.0 ppb    | 0.2    |
| Trace Impurities – Vanadium (V)                        | <= 1.0 ppb    | < 0.2  |
| Trace Impurities – Zinc (Zn)                           | <= 5.0 ppb    | 0.3    |
| Trace Impurities – Zirconium (Zr)                      | <= 1.0 ppb    | < 0.1  |

For Laboratory, Research or Manufacturing Use  
Product Information (not specifications):  
Appearance (clear, fuming liquid)  
Meets ACS Specifications

Country of Origin: US  
Packaging Site: Phillipsburg Mfg Ctr & DC

  
Jamie Ethier  
Vice President Global Quality

For questions on this Certificate of Analysis please contact Technical Services at 855.282.6867 or +1.610.386.1700

Avantor Performance Materials, LLC  
100 Matsonford Rd, Suite 200, Radnor, PA 19087. U.S.A. Phone: 610.386.1700

386

M612 S

Receive → 11/22/24

# CORCO CHEMICAL CORPORATION

Manufacturers of ACS Reagents and Semiconductor Grade Chemicals

Office and Plant  
299 Cedar Lane  
Fairless Hills, PA 19030

Phone: 215-295-5006  
Fax: 215-295-0781

## Hydrogen Peroxide 30%, ACS Reagent Grade

### SPECIFICATION

### MAXIMUM LIMITS

|                             |                                                         |
|-----------------------------|---------------------------------------------------------|
| Appearance                  | Colorless and free from<br>suspended matter or sediment |
| Assay                       | 29-32%                                                  |
| Color (APHA)                | 10                                                      |
| Residue after Evaporation   | 0.002%                                                  |
| Titrateable Acid            | 0.0006 meq/g                                            |
| Chloride (Cl)               | 3 ppm                                                   |
| Nitrate (NO <sub>3</sub> )  | 2 ppm                                                   |
| Phosphate                   | 2 ppm                                                   |
| Sulfate (SO <sub>4</sub> )  | 5 ppm                                                   |
| Ammonium (NH <sub>4</sub> ) | 5 ppm                                                   |
| Heavy Metals (as Pb)        | 1 ppm                                                   |
| Iron (Fe)                   | 0.5 ppm                                                 |



Nitric Acid 69%  
CMOS



R → 11/12/24

M6126

Material No.: 9606-03  
Batch No.: 24D1062002  
Manufactured Date: 2024-03-26  
Retest Date: 2029-03-25  
Revision No.: 0

## Certificate of Analysis

| Test                              | Specification | Result      |
|-----------------------------------|---------------|-------------|
| Assay (HNO <sub>3</sub> )         | 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 <sub>4</sub> )      | ≤ 0.10 ppm    | < 0.03 ppm  |
| Sulfate (SO <sub>4</sub> )        | ≤ 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

 **avantors<sup>TM</sup>**



Material No.: 9606-03  
Batch No.: 24D1062002

| Test | Specification | Result |
|------|---------------|--------|
|------|---------------|--------|

For Microelectronic Use

Country of Origin: USA  
Packaging Site: Phillipsburg Mfg Ctr & DC



Jamie Croak  
Director Quality Operations, Bioscience Production

390



**CERTIFIED WEIGHT REPORT:**

**Part Number:** 58111  
**Lot Number:** 122223  
**Description:** Sodium (Na)

**Solvent:** 24002546 Nitric Acid

**Lot #**

|                       |                |
|-----------------------|----------------|
| <i>Aleah O Brady</i>  |                |
| Formulated By:        | Aleah O Brady  |
|                       | 122223         |
| <i>Pedro L Rentas</i> |                |
| Reviewed By:          | Pedro L Rentas |
|                       | 122223         |

391

**Expiration Date:** 122226  
**Recommended Storage:** Ambient (20 °C)  
**Nominal Concentration (µg/mL):** 10000  
**NIST Test Number:** 6UTB  
**Weight shown below was diluted to (mL):** 3000.4  
**5E-05 Balance Uncertainty**  
**0.06 Flask Uncertainty**

| SDS Information |        |               |        |             |       |            |            |               |             |                                        |                |      |     |      |
|-----------------|--------|---------------|--------|-------------|-------|------------|------------|---------------|-------------|----------------------------------------|----------------|------|-----|------|
| Expanded        |        |               |        |             |       |            |            |               |             |                                        |                |      |     |      |
| Compound        | Lot    | Nominal       | Purity | Uncertainty | Assay | Target     | Actual     | Actual        | Uncertainty | SDS Information                        |                |      |     | NIST |
|                 |        |               |        |             |       |            |            |               |             | (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. Sodium nitrate (Na) IN036 NAV01201511 10000 99.999 0.10 26.9 111.5406 111.5479 10000.7 20.0 7631-99-4 5 mg/m3 or-trat 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 | 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 | 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 | 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 | 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 | 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 | 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 |

(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).

## 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) HNO<sub>3</sub>  
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](http://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](http://inorganicventures.com); [info@inorganicventures.com](mailto: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](mailto: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 HNO<sub>3</sub>. Analyze this solution by ICP-MS.

**ICSB-0803, Analytes, mixed with ICSA-0803, Interferents:** Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 1% v/v HNO<sub>3</sub>. 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<br>ICSA-0803, AND ICSA-0803 MIXED WITH ICSB-0803 |      |                  |                          |                          |                             |                          |                          |
|-------------------------------------------------------------------------------------------------------------------|------|------------------|--------------------------|--------------------------|-----------------------------|--------------------------|--------------------------|
| Element                                                                                                           | CRQL | Part A<br>(µg/L) | Lower<br>Limit<br>(µg/L) | Upper<br>Limit<br>(µg/L) | Part A<br>+Part B<br>(µg/L) | Lower<br>Limit<br>(µg/L) | Upper<br>Limit<br>(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.**

**(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](mailto: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 HNO<sub>3</sub>. Analyze this solution by ICP-MS.

**ICSB-0803, Analytes, mixed with ICSA-0803, Interferents:** Pipet 10 mL of the ICSA solution and 10 mL of the ICSB solution into a 100 mL volumetric flask and dilute to volume with 1% v/v HNO<sub>3</sub>. 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<br>ICSA-0803, AND ICSA-0803 MIXED WITH ICSB-0803 |      |                  |                          |                          |                             |                          |                          |
|-------------------------------------------------------------------------------------------------------------------|------|------------------|--------------------------|--------------------------|-----------------------------|--------------------------|--------------------------|
| Element                                                                                                           | CRQL | Part A<br>(µg/L) | Lower<br>Limit<br>(µg/L) | Upper<br>Limit<br>(µg/L) | Part A<br>+Part B<br>(µg/L) | Lower<br>Limit<br>(µg/L) | Upper<br>Limit<br>(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 WEIGHT REPORT:**

Part Number:  
Lot Number:  
Description:

57051  
120523  
Antimony (Sb)

Lot #  
Solvent:

24002546 Nitric Acid

2.0% 60.0 Nitric Acid  
(mL)

Expiration Date:

120526

Recommended Storage:

Ambient (20 °C)

Nominal Concentration (µg/mL):

1000

NIST Test Number:

6LJTB

Volume shown below was diluted to (mL):

3000.41

5E-05 Balance Uncertainty  
0.058 Flask Uncertainty

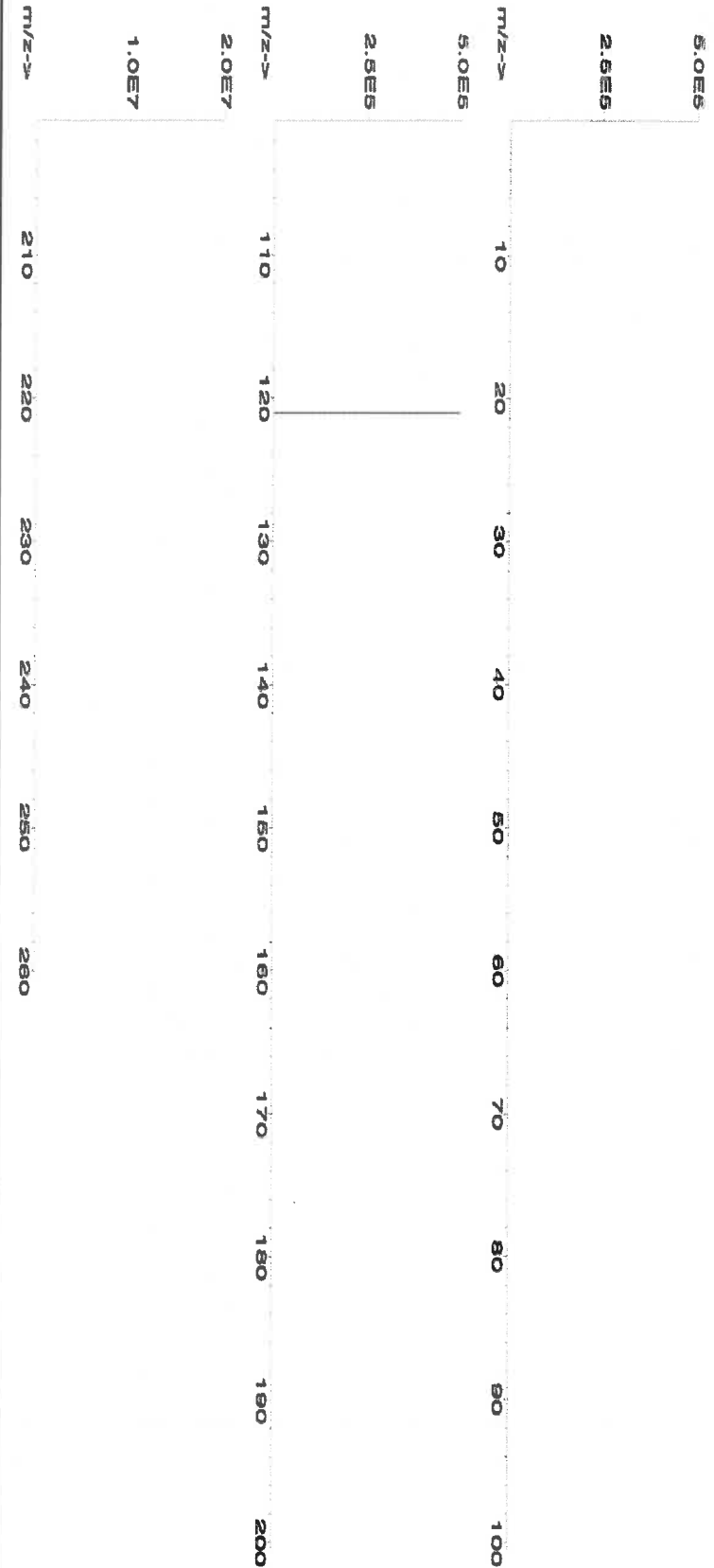
|                |                  |        |
|----------------|------------------|--------|
| Formulated By: | Lawrence Barry   | 120523 |
| Reviewed By:   | Pedro L. Rientas | 120523 |

**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. Antimony (Sb) 58151 100923 0.1000 300.0 0.084 1000 10001.4 1000.0 2.1 7440-36-0 0.5 mg/m3 or-rel 7000 mg/kg 3102a

[1] Spectrum No.1 [ 17.964 sec]:58051.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 | T     | Ca | <0.2  | Er | <0.02 | Ho | <0.02 | Lu | <0.02 | Nb | <0.02 | Re | <0.02 | Si | <0.02 | Te | <0.02 | U  | <0.02 |
| As | <0.2  | Ce | <0.02 | Eu | <0.02 | In | <0.02 | Mg | <0.01 | Os | <0.02 | Rh | <0.02 | Ag | <0.02 | Tl | <0.02 | V  | <0.02 |
| Ba | <0.02 | Cs | <0.02 | Gd | <0.02 | Ir | <0.02 | Mn | <0.02 | Pd | <0.02 | Rb | <0.02 | Na | <0.2  | Th | <0.02 | Yb | <0.02 |
| Be | <0.01 | Cr | <0.02 | Ga | <0.02 | Fe | <0.2  | Hg | <0.2  | P  | <0.02 | Ru | <0.02 | Sr | <0.02 | Tm | <0.02 | Y  | <0.02 |
| Bi | <0.02 | Co | <0.02 | Ge | <0.02 | La | <0.02 | Mo | <0.02 | Pt | <0.02 | Sm | <0.02 | S  | <0.02 | Sn | <0.02 | Zn | <0.02 |
| B  | <0.02 | Cu | <0.02 | Au | <0.02 | Pb | <0.02 | Nd | <0.02 | K  | <0.2  | Sc | <0.02 | Ta | <0.02 | Ti | <0.02 | Zr | <0.02 |

(T) = Target analyte

**Physical Characterization:**

Homogeneity: No heterogeneity was observed in the preparation of this standard.

**Certified by:**

- \* The certified value is the concentration calculated from gravimetric and volumetric measurements unless otherwise stated.
- \* Purified acids, 18.2 megohm deionized water, calibrated Class A glassware and the highest purity raw materials are used in the preparation of all standards.
- \* All standard containers are meticulously cleaned prior to use.
- \* Standards are prepared gravimetrically using balances that are calibrated with weights traceable to NIST (see above).
- \* Standards are 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**

M6030



**CERTIFIED WEIGHT REPORT:**

Part Number: **57047**  
Lot Number: **122823**  
Description: **Silver (Ag)**

Solvent: 24002546 Nitric Acid  
Lot #

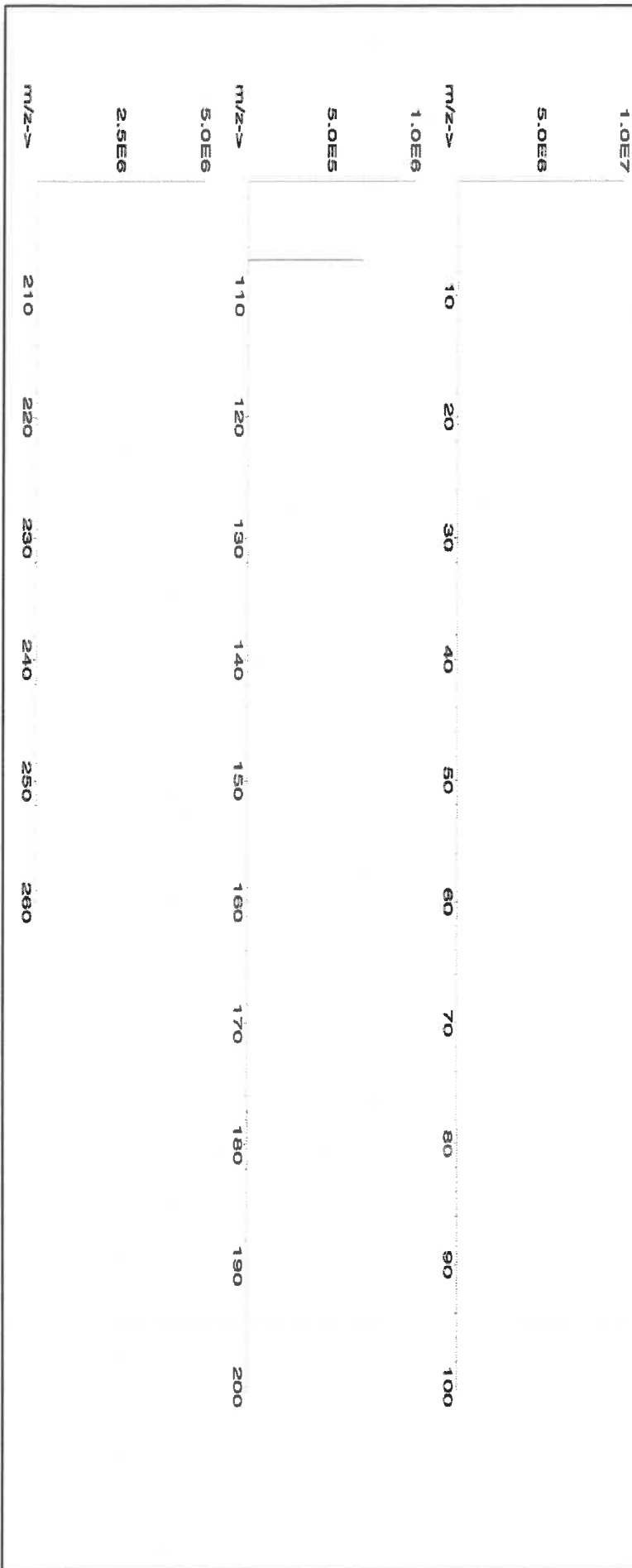
|                |                 |
|----------------|-----------------|
|                |                 |
| Formulated By: | Benson Chan     |
| Reviewed By:   | Pedro L. Rentas |
|                | 122823          |

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

| Compound | RM# | Lot Number | Nominal Conc. (µg/mL) | Purity (%) | Uncertainty (%) | Assay (%) | Target Weight (g) | Actual Weight (g) | Actual Conc. (µg/mL) | Expanded Uncertainty |         | CAS# | SDS Information                        |                | NIST SRM |
|----------|-----|------------|-----------------------|------------|-----------------|-----------|-------------------|-------------------|----------------------|----------------------|---------|------|----------------------------------------|----------------|----------|
|          |     |            |                       |            |                 |           |                   |                   |                      | +/- (µg/mL)          | (µg/mL) |      | (Solvent Safety Info. On Attached pg.) | OSHA PEL (TWA) |          |

1. Silver nitrate (Ag) IN035 J0612AGA1 1000.0 99.999 0.10 63.7 6.27992 6.27998 1000.0 2.0 7761-88-8 10 µg/m<sup>3</sup> NA 3151

[1] Spectrum No. 1 [ 14.044 sec]:58147.D# [Count] [Linear]





**Instrumental Analysis by Inductively Coupled Plasma Mass Spectrometry (ICP-MS):**

404

**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:**

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 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: 03/16/23 MS473 MS474 MS475 MS476

## CERTIFIED WEIGHT REPORT:

Part Number:  
Lot Number:  
Description:56138  
082922  
Strontium (Sr)Expiration Date:  
Recommended Storage:  
Nominal Concentration (µg/mL):  
NIST Test Number:082925  
Ambient (20 °C)  
10000  
6UTB

Weight shown below was diluted to (mL):

1000.12 5E-05 Balance Uncertainty  
0.058 Flask Uncertainty

## Lot #

Solvent: 20510011 Nitric Acid

2% 20.0 Nitric Acid  
(mL)

Formulated By: Lawrence Barry 082922

Reviewed By: Pedro L. Rentas 082922

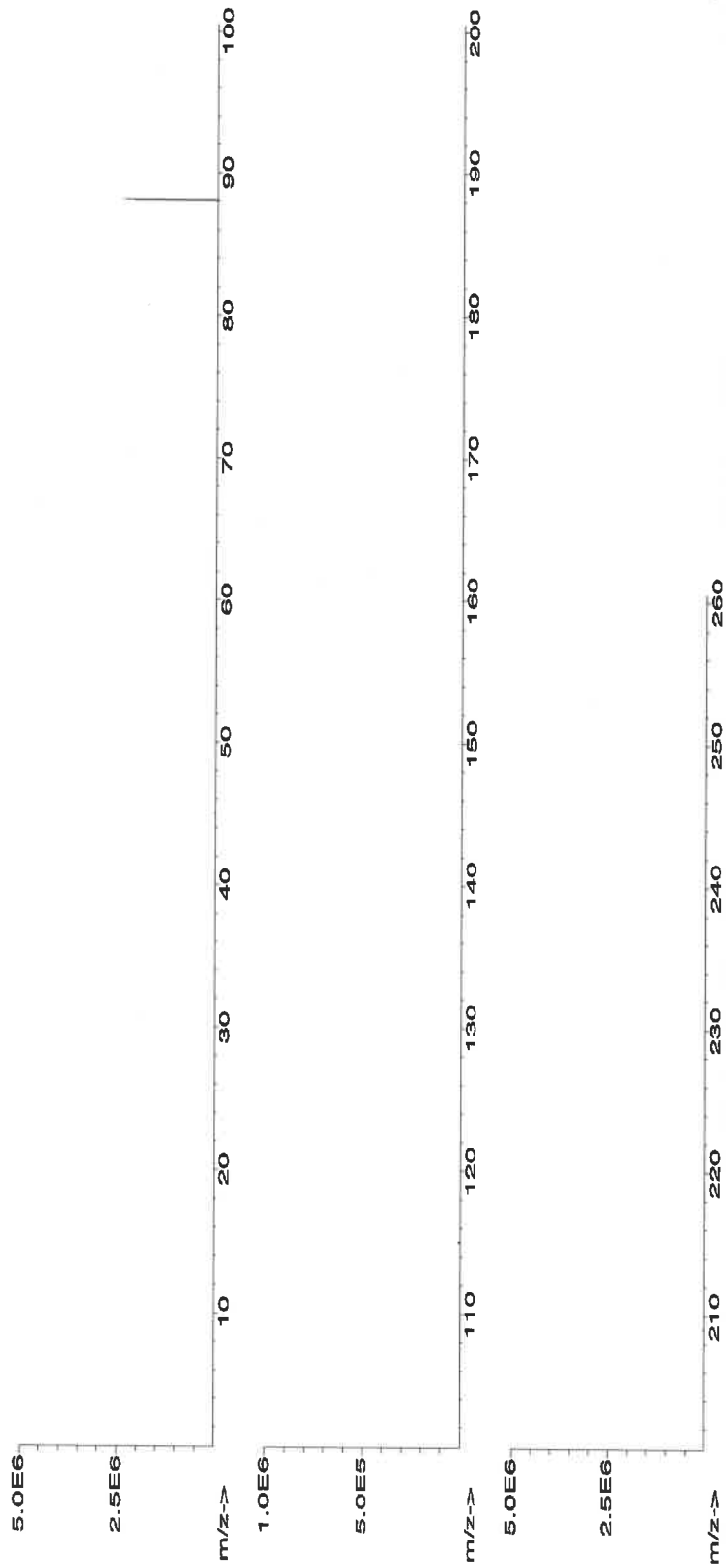
## SDS Information

Expanded  
Uncertainty  
+/- (µg/mL) CAS# OSHA PEL (TWA) LD50 SRM  
(Solvent Safety Info. On Attached pg.)

## Compound

1. Strontium nitrate (Sr) IN017 SRZ022019A1 10000 99.997 0.10 41.2 24.2756 24.2758 10000.1 20.0 10042-76-9 NA orl-rat &gt;2000mg/kg 3153a

[1] Spectrum No.1 [ 14.495 sec]:58138.D# [Count] [Linear]



405



# 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 | <0.02 | Hg | <0.2  | P  | <0.02 | Ru | <0.02 | Sr | T     | Tm | <0.02 | Y  | <0.02 |
| Bi | <0.02 | Co | <0.02 | Ge | <0.02 | La | <0.02 | Mo | <0.02 | Pt | <0.02 | Sm | <0.02 | S  | <0.02 | Sn | <0.02 | Zn | <0.02 |
| B  | <0.02 | Cu | <0.02 | Au | <0.02 | Pb | <0.02 | Nd | <0.02 | K  | <0.2  | Sc | <0.02 | Ta | <0.02 | Ti | <0.02 | Zr | <0.02 |

(T)= Target analyte

## Physical Characterization:

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:** 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 (mL)

**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

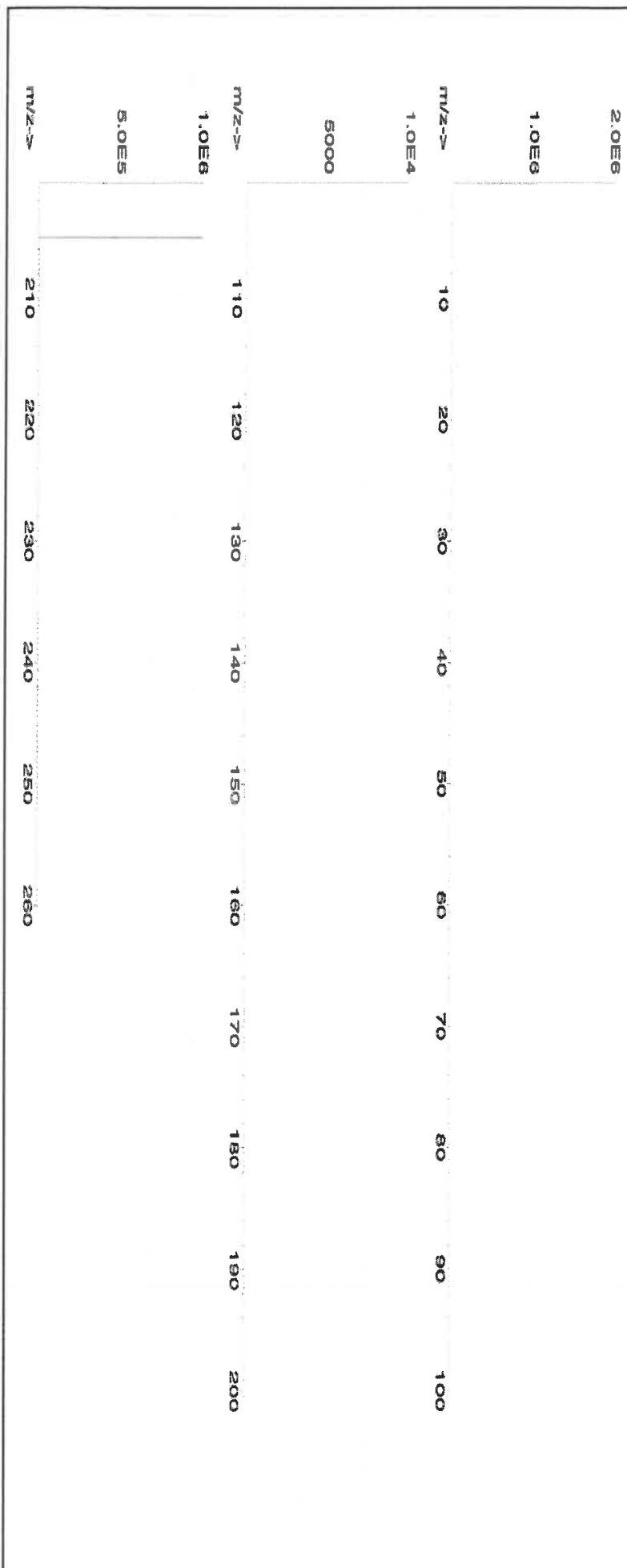
*Pedro L. Renteria*  
**Reviewed By:** Pedro L. Renterias 062724

**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):**

408

**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:**

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).



**Certified Reference Material CRM**

M6021



**CERTIFIED WEIGHT REPORT:**

Part Number: **57023**  
Lot Number: **062424**  
Description: **Vanadium (V)**

Lot # **24002546**  
Solvent: **Nitric Acid**

|                      |                 |
|----------------------|-----------------|
| <i>Aleah O'Brady</i> |                 |
| Formulated By:       | Aleah O'Brady   |
| Reviewed By:         | Pedro L. Rantas |

Expiration Date: **062427**  
Recommended Storage: **Ambient (20 °C)**  
Nominal Concentration (µg/mL): **1000**  
NIST Test Number: **6UTB**

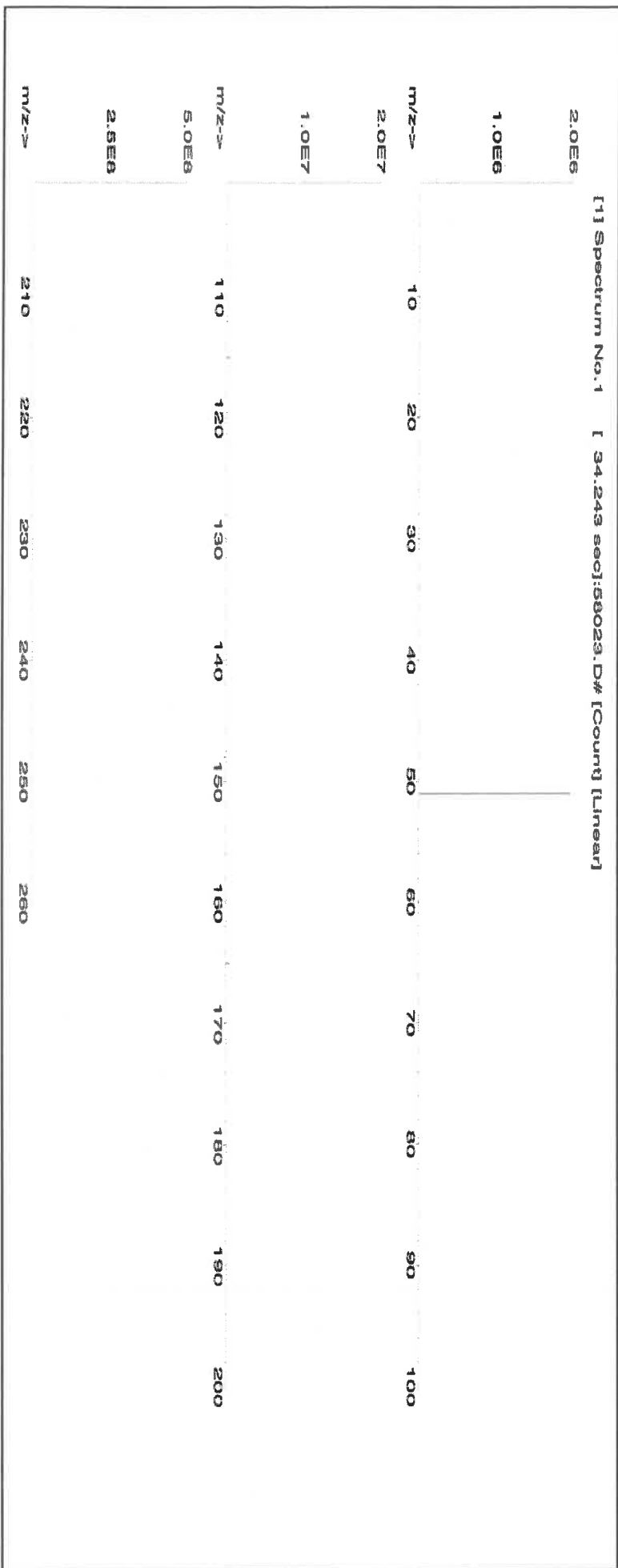
2.0%  
40.0 (mL)  
Nitric Acid

Volume shown below was diluted to (mL): **2000.3**

5E-05 Balance Uncertainty  
0.06 Flask Uncertainty

| Compound | SDS information |        |           |              |               |               |               |             |             |                |      |     |
|----------|-----------------|--------|-----------|--------------|---------------|---------------|---------------|-------------|-------------|----------------|------|-----|
|          | Expanded        |        |           |              |               |               |               |             |             | NIST           |      |     |
|          | Part            | Lot    | Dilution  | Initial      | Uncertainty   | Nominal       | Initial       | Final       | Uncertainty |                |      |     |
| Number   | Number          | Factor | Vol. (mL) | Pipette (mL) | Conc. (µg/mL) | Conc. (µg/mL) | Conc. (µg/mL) | +/- (µg/mL) | CAS#        | OSHA PEL (TWA) | LD50 | SRM |

[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 ( $\mu\text{g/mL}$ )**

|    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |    |       |
|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|----|-------|
| 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  | T     |
| Ba | <0.02 | Cs | <0.02 | Gd | <0.02 | Ir | <0.02 | Mn | <0.02 | Pd | <0.02 | Rb | <0.02 | Na | <0.2  | Th | <0.02 | Yb | <0.02 |
| Be | <0.01 | Cr | <0.02 | Ga | <0.02 | Fe | <0.2  | Hg | <0.2  | P  | <0.02 | Ru | <0.02 | Sr | <0.02 | Tm | <0.02 | Y  | <0.02 |
| Bi | <0.02 | Co | <0.02 | Ge | <0.02 | La | <0.02 | Mo | <0.02 | 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).

SOP ID : M200.8-Trace Elements-22, MSFAM01.1-Metals ICPMS-2

SDG No : MJNKD0,MJNKG0

Matrix : SOIL

Pipette ID: ICP A

Balance ID : M SC-2

Filter paper ID : N/A

pH Strip ID : M6069

Hood ID : #3

Block ID: 1. HOT BLOCK #2 2. N/A

Start Digest Date: 12/16/2024 Time : 14:50 Temp : 96 °C

End Digest Date: 12/16/2024 Time : 15:25 Temp : 96 °C

Digestion tube ID: M6054

Block thermometer ID: MET-DIG. #2

Dig Technician Signature: *[Signature]*

Supervisor Signature: *[Signature]*

Temp : 1. 96°C 2. N/A

SJ 12/18/2024

| Standard Name | MLS USED | STD REF. # FROM LOG |
|---------------|----------|---------------------|
| LCSS          | 1.00     | MP83669             |
| Spike Sol. B  | 1.00     | MP83671             |
| N/A           | N/A      | N/A                 |
| N/A           | N/A      | N/A                 |
| N/A           | N/A      | N/A                 |

| Chemical Used | ML/SAMPLE USED | Lot Number                 |
|---------------|----------------|----------------------------|
| 1:1 HNO3      | 4.00           | MP83498                    |
| 1.4 HCL SOLN  | 10.00          | <del>MP83499</del> MP82128 |
| Conc. HNO3    | 5.00           | M6126                      |
| 30% H2O2      | 3.00           | M6125                      |
| 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 #2 CELL #34 : 96

| Date / Time    | Prepped Sample Relinquished By/Location | Received By/Location |
|----------------|-----------------------------------------|----------------------|
| 12/16/24 16:25 | <i>slud. met digestion</i>              | <i>AB. metal lab</i> |
|                | Preparation Group                       | Analysis Group       |

| Lab Sample ID | Client Sample ID | pH  | Initial Weight (g) | Final Vol (ml) | Color Before | Color After | Texture | Artifact | Comment | Prep Pos |
|---------------|------------------|-----|--------------------|----------------|--------------|-------------|---------|----------|---------|----------|
| P5248-01      | MJNKD0           | N/A | 1.13               | 500            | Brown        | Yellow      | Medium  | N/A      | N/A     | 1        |
| P5248-02      | MJNKD0D          | N/A | 1.15               | 500            | Brown        | Yellow      | Medium  | N/A      | N/A     | 2        |
| P5248-03      | MJNKD0S          | N/A | 1.31               | 500            | Brown        | Yellow      | Medium  | N/A      | N/A     | 3        |
| P5248-04      | MJNKD1           | N/A | 1.29               | 500            | Brown        | Yellow      | Medium  | N/A      | N/A     | 4        |
| P5248-05      | MJNKE0           | N/A | 1.39               | 500            | Brown        | Yellow      | Medium  | N/A      | N/A     | 5        |
| P5248-06      | MJNKE1           | N/A | 1.23               | 500            | Brown        | Yellow      | Medium  | N/A      | N/A     | 6        |
| P5248-07      | MJNKE2           | N/A | 1.12               | 500            | Brown        | Yellow      | Medium  | N/A      | N/A     | 7        |
| P5248-08      | MJNKF0           | N/A | 1.26               | 500            | Brown        | Yellow      | Medium  | N/A      | N/A     | 8        |
| P5248-09      | MJNKF1           | N/A | 1.25               | 500            | Brown        | Yellow      | Medium  | N/A      | N/A     | 9        |
| P5248-10      | MJNKG1           | N/A | 1.24               | 500            | Brown        | Yellow      | Medium  | N/A      | N/A     | 10       |
| P5248-11      | MJNKG2           | N/A | 1.28               | 500            | Brown        | Yellow      | Medium  | N/A      | N/A     | 11       |
| P5248-12      | MJNLH6           | N/A | 1.06               | 500            | Brown        | Yellow      | Medium  | N/A      | N/A     | 12       |
| P5248-13      | MJNLH7           | N/A | 1.16               | 500            | Brown        | Yellow      | Medium  | N/A      | N/A     | 13       |
| P5248-14      | MJNLH8           | N/A | 1.30               | 500            | Brown        | Yellow      | Medium  | N/A      | N/A     | 14       |
| P5249-01      | MJNKG0           | N/A | 1.25               | 500            | Brown        | Yellow      | Medium  | N/A      | N/A     | 15       |
| P5249-02      | MJNKG0D          | N/A | 1.19               | 500            | Brown        | Yellow      | Medium  | N/A      | N/A     | 16       |
| P5249-03      | MJNKG0S          | N/A | 1.48               | 500            | Brown        | Yellow      | Medium  | N/A      | N/A     | 17       |
| PB165675BL    | PBS675           | N/A | 1.00               | 500            | Colorless    | Colorless   | Fine    | N/A      | MP83671 | 18       |
| PB165675BS    | LCS675           | N/A | 1.00               | 500            | Colorless    | Colorless   | Fine    | N/A      | MP83699 | 19       |

Instrument ID: P7

**Daily Analysis Runlog For Sequence/QC Batch ID # LB134060**

|                  |                                                                         |              |                       |
|------------------|-------------------------------------------------------------------------|--------------|-----------------------|
| Review By        | Mohan Bera                                                              | Review On    | 12/24/2024 3:52:41 AM |
| Supervise By     | Sarabjit Jaswal                                                         | Supervise On | 12/24/2024 3:55:48 AM |
| <b>STD. NAME</b> | <b>STD REF.#</b>                                                        |              |                       |
| ICAL Standard    | MP83619,MP83628,MP83627,MP83625,MP83623,MP83622,MP83621,MP83620,MP83636 |              |                       |
| ICV Standard     | MP83629                                                                 |              |                       |
| CCV Standard     | MP83632                                                                 |              |                       |
| ICSA Standard    | MP83630,MP83631                                                         |              |                       |
| CRI Standard     |                                                                         |              |                       |
| LCS Standard     | MP83669                                                                 |              |                       |
| Chk Standard     | MP83635,MP83634                                                         |              |                       |

| Sr# | SampleId   | ClientID | QcType | Date           | Comment                             | Operator | Status |
|-----|------------|----------|--------|----------------|-------------------------------------|----------|--------|
| 1   | TUNE       | TUNE006  | TUNE   | 12/21/24 15:35 |                                     | Jaswal   | OK     |
| 2   | S00        | S0       | CAL1   | 12/21/24 16:08 |                                     | Jaswal   | OK     |
| 3   | S02        | S02      | CAL3   | 12/21/24 16:14 |                                     | Jaswal   | OK     |
| 4   | S03        | S03      | CAL4   | 12/21/24 16:18 |                                     | Jaswal   | OK     |
| 5   | S04        | S04      | CAL5   | 12/21/24 16:21 |                                     | Jaswal   | OK     |
| 6   | S05        | S05      | CAL6   | 12/21/24 16:24 |                                     | Jaswal   | OK     |
| 7   | S06        | S06      | CAL7   | 12/21/24 16:26 |                                     | Jaswal   | OK     |
| 8   | S07        | S07      | CAL8   | 12/21/24 16:29 |                                     | Jaswal   | OK     |
| 9   | S08        | S08      | CAL9   | 12/21/24 16:32 |                                     | Jaswal   | OK     |
| 10  | ICV006     | ICV006   | ICV    | 12/21/24 17:01 | Inst. paused for calibration review | Jaswal   | OK     |
| 11  | ICB006     | ICB006   | ICB    | 12/21/24 17:08 | Inst. paused for review             | Jaswal   | OK     |
| 12  | ICSA006    | ICSA006  | ICSA   | 12/21/24 17:11 |                                     | Jaswal   | OK     |
| 13  | ICSAB006   | ICSAB006 | ICSAB  | 12/21/24 17:20 | Inst. paused for review             | Jaswal   | OK     |
| 14  | CCV037     | CCV037   | CCV    | 12/21/24 17:23 |                                     | Jaswal   | OK     |
| 15  | CCB037     | CCB037   | CCB    | 12/21/24 17:29 | Inst. paused for review             | Jaswal   | OK     |
| 16  | PB165675BL | PBS675   | MB     | 12/21/24 17:32 |                                     | Jaswal   | OK     |
| 17  | PB165675BS | LCS675   | LCS    | 12/21/24 17:36 |                                     | Jaswal   | OK     |
| 18  | PB165800BL | PBS800   | MB     | 12/21/24 17:39 |                                     | Jaswal   | OK     |

Instrument ID: P7

**Daily Analysis Runlog For Sequence/QC Batch ID # LB134060**

|              |                 |              |                       |
|--------------|-----------------|--------------|-----------------------|
| Review By    | Mohan Bera      | Review On    | 12/24/2024 3:52:41 AM |
| Supervise By | Sarabjit Jaswal | Supervise On | 12/24/2024 3:55:48 AM |

| STD. NAME     | STD REF.#                                                               |
|---------------|-------------------------------------------------------------------------|
| ICAL Standard | MP83619,MP83628,MP83627,MP83625,MP83623,MP83622,MP83621,MP83620,MP83636 |
| ICV Standard  | MP83629                                                                 |
| CCV Standard  | MP83632                                                                 |
| ICSA Standard | MP83630,MP83631                                                         |
| CRI Standard  |                                                                         |
| LCS Standard  | MP83669                                                                 |
| Chk Standard  | MP83635,MP83634                                                         |

|    |            |         |     |                |                         |        |          |
|----|------------|---------|-----|----------------|-------------------------|--------|----------|
| 19 | PB165800BS | LCS800  | LCS | 12/21/24 17:42 |                         | Jaswal | OK       |
| 20 | PB165755BL | PBS755  | MB  | 12/21/24 17:46 | NOT USE                 | Jaswal | Not Ok   |
| 21 | PB165755BS | LCS755  | LCS | 12/21/24 17:49 | NOT USE                 | Jaswal | Not Ok   |
| 22 | P5248-01   | MJNKD0  | SAM | 12/21/24 17:53 | As high                 | Jaswal | Dilution |
| 23 | P5248-02   | MJNKD0D | DUP | 12/21/24 17:56 | As high                 | Jaswal | Dilution |
| 24 | P5248-01L  | MJNKD0L | SD  | 12/21/24 17:59 | As high                 | Jaswal | Dilution |
| 25 | P5248-03   | MJNKD0S | MS  | 12/21/24 18:02 | As high                 | Jaswal | Dilution |
| 26 | P5249-01   | MJNKG0  | SAM | 12/21/24 18:05 |                         | Jaswal | OK       |
| 27 | P5249-02   | MJNKG0D | DUP | 12/21/24 18:08 |                         | Jaswal | OK       |
| 28 | P5249-01L  | MJNKG0L | SD  | 12/21/24 18:11 |                         | Jaswal | OK       |
| 29 | P5249-03   | MJNKG0S | MS  | 12/21/24 18:15 |                         | Jaswal | OK       |
| 30 | P5272-04   | MJNKG0  | SAM | 12/21/24 18:18 |                         | Jaswal | OK       |
| 31 | P5272-05   | MJNKG0D | DUP | 12/21/24 18:21 |                         | Jaswal | OK       |
| 32 | P5272-04L  | MJNKG0L | SD  | 12/21/24 18:24 |                         | Jaswal | OK       |
| 33 | P5272-06   | MJNKG0S | MS  | 12/21/24 18:27 |                         | Jaswal | OK       |
| 34 | P5273-01   | MJNKH1  | SAM | 12/21/24 18:30 |                         | Jaswal | OK       |
| 35 | CCV038     | CCV038  | CCV | 12/21/24 18:33 |                         | Jaswal | OK       |
| 36 | CCB038     | CCB038  | CCB | 12/21/24 18:39 | Inst. paused for review | Jaswal | OK       |
| 37 | P5273-02   | MJNKH1D | DUP | 12/21/24 18:43 |                         | Jaswal | OK       |
| 38 | P5273-01L  | MJNKH1L | SD  | 12/21/24 18:46 |                         | Jaswal | OK       |

Instrument ID: P7

**Daily Analysis Runlog For Sequence/QC Batch ID # LB134060**

|              |                 |              |                       |
|--------------|-----------------|--------------|-----------------------|
| Review By    | Mohan Bera      | Review On    | 12/24/2024 3:52:41 AM |
| Supervise By | Sarabjit Jaswal | Supervise On | 12/24/2024 3:55:48 AM |

| STD. NAME     | STD REF.#                                                               |
|---------------|-------------------------------------------------------------------------|
| ICAL Standard | MP83619,MP83628,MP83627,MP83625,MP83623,MP83622,MP83621,MP83620,MP83636 |
| ICV Standard  | MP83629                                                                 |
| CCV Standard  | MP83632                                                                 |
| ICSA Standard | MP83630,MP83631                                                         |
| CRI Standard  |                                                                         |
| LCS Standard  | MP83669                                                                 |
| Chk Standard  | MP83635,MP83634                                                         |

|    |           |         |     |                |         |        |        |
|----|-----------|---------|-----|----------------|---------|--------|--------|
| 39 | P5250-06  | MJNBZ2  | SAM | 12/21/24 18:49 | NOT USE | Jaswal | Not Ok |
| 40 | P5250-07  | MJNBZ2D | DUP | 12/21/24 18:52 | NOT USE | Jaswal | Not Ok |
| 41 | P5250-06L | MJNBZ2L | SD  | 12/21/24 18:55 | NOT USE | Jaswal | Not Ok |
| 42 | P5250-08  | MJNBZ2S | MS  | 12/21/24 18:58 | NOT USE | Jaswal | Not Ok |
| 43 | P5255-02  | MJNL72  | SAM | 12/21/24 19:02 | NOT USE | Jaswal | Not Ok |
| 44 | P5255-03  | MJNL72D | DUP | 12/21/24 19:05 | NOT USE | Jaswal | Not Ok |
| 45 | P5255-02L | MJNL72L | SD  | 12/21/24 19:08 | NOT USE | Jaswal | Not Ok |
| 46 | P5255-04  | MJNL72S | MS  | 12/21/24 19:11 | NOT USE | Jaswal | Not Ok |
| 47 | P5256-01  | MJNL92  | SAM | 12/21/24 19:14 | NOT USE | Jaswal | Not Ok |
| 48 | P5256-02  | MJNL92D | DUP | 12/21/24 19:17 | NOT USE | Jaswal | Not Ok |
| 49 | P5256-01L | MJNL92L | SD  | 12/21/24 19:20 | NOT USE | Jaswal | Not Ok |
| 50 | P5256-03  | MJNL92S | MS  | 12/21/24 19:23 | NOT USE | Jaswal | Not Ok |
| 51 | P5273-03  | MJNKH1S | MS  | 12/21/24 19:27 |         | Jaswal | OK     |
| 52 | P5248-04  | MJNKD1  | SAM | 12/21/24 19:30 |         | Jaswal | OK     |
| 53 | P5248-05  | MJNKE0  | SAM | 12/21/24 19:33 |         | Jaswal | OK     |
| 54 | P5248-06  | MJNKE1  | SAM | 12/21/24 19:36 |         | Jaswal | OK     |
| 55 | P5248-07  | MJNKE2  | SAM | 12/21/24 19:39 |         | Jaswal | OK     |
| 56 | P5248-08  | MJNKF0  | SAM | 12/21/24 19:42 |         | Jaswal | OK     |
| 57 | P5248-09  | MJNKF1  | SAM | 12/21/24 19:45 |         | Jaswal | OK     |
| 58 | P5248-10  | MJNKG1  | SAM | 12/21/24 19:48 |         | Jaswal | OK     |

Instrument ID: P7

**Daily Analysis Runlog For Sequence/QC Batch ID # LB134060**

|              |                 |              |                       |
|--------------|-----------------|--------------|-----------------------|
| Review By    | Mohan Bera      | Review On    | 12/24/2024 3:52:41 AM |
| Supervise By | Sarabjit Jaswal | Supervise On | 12/24/2024 3:55:48 AM |

| STD. NAME     | STD REF.#                                                               |
|---------------|-------------------------------------------------------------------------|
| ICAL Standard | MP83619,MP83628,MP83627,MP83625,MP83623,MP83622,MP83621,MP83620,MP83636 |
| ICV Standard  | MP83629                                                                 |
| CCV Standard  | MP83632                                                                 |
| ICSA Standard | MP83630,MP83631                                                         |
| CRI Standard  |                                                                         |
| LCS Standard  | MP83669                                                                 |
| Chk Standard  | MP83635,MP83634                                                         |

|    |          |        |     |                |         |        |          |
|----|----------|--------|-----|----------------|---------|--------|----------|
| 59 | P5248-11 | MJNKG2 | SAM | 12/21/24 19:52 |         | Jaswal | OK       |
| 60 | P5248-12 | MJNLH6 | SAM | 12/21/24 19:55 | As high | Jaswal | Dilution |
| 61 | P5248-13 | MJNLH7 | SAM | 12/21/24 19:58 |         | Jaswal | OK       |
| 62 | CCV039   | CCV039 | CCV | 12/21/24 20:01 |         | Jaswal | OK       |
| 63 | CCB039   | CCB039 | CCB | 12/21/24 20:04 |         | Jaswal | OK       |
| 64 | P5248-14 | MJNLH8 | SAM | 12/21/24 20:07 |         | Jaswal | OK       |
| 65 | P5272-01 | MJNKG6 | SAM | 12/21/24 20:10 |         | Jaswal | OK       |
| 66 | P5272-02 | MJNKG7 | SAM | 12/21/24 20:13 |         | Jaswal | OK       |
| 67 | P5272-03 | MJNKG8 | SAM | 12/21/24 20:16 |         | Jaswal | OK       |
| 68 | P5272-07 | MJNKK0 | SAM | 12/21/24 20:19 |         | Jaswal | OK       |
| 69 | P5272-08 | MJNKK1 | SAM | 12/21/24 20:22 |         | Jaswal | OK       |
| 70 | P5272-09 | MJNKK2 | SAM | 12/21/24 20:25 |         | Jaswal | OK       |
| 71 | P5250-01 | MJNBZ1 | SAM | 12/21/24 20:28 | NOT USE | Jaswal | Not Ok   |
| 72 | P5250-02 | MJNBZ3 | SAM | 12/21/24 20:32 | NOT USE | Jaswal | Not Ok   |
| 73 | P5250-03 | MJNBZ4 | SAM | 12/21/24 20:35 | NOT USE | Jaswal | Not Ok   |
| 74 | P5250-04 | MJNBZ7 | SAM | 12/21/24 20:38 | NOT USE | Jaswal | Not Ok   |
| 75 | P5250-05 | MJNBZ8 | SAM | 12/21/24 20:41 | NOT USE | Jaswal | Not Ok   |
| 76 | P5255-01 | MJNL27 | SAM | 12/21/24 20:44 | NOT USE | Jaswal | Not Ok   |
| 77 | P5255-05 | MJNL93 | SAM | 12/21/24 20:48 | NOT USE | Jaswal | Not Ok   |
| 78 | P5255-06 | MJNL94 | SAM | 12/21/24 20:51 | NOT USE | Jaswal | Not Ok   |

Instrument ID: P7

**Daily Analysis Runlog For Sequence/QC Batch ID # LB134060**

|              |                 |              |                       |
|--------------|-----------------|--------------|-----------------------|
| Review By    | Mohan Bera      | Review On    | 12/24/2024 3:52:41 AM |
| Supervise By | Sarabjit Jaswal | Supervise On | 12/24/2024 3:55:48 AM |

| STD. NAME     | STD REF.#                                                               |
|---------------|-------------------------------------------------------------------------|
| ICAL Standard | MP83619,MP83628,MP83627,MP83625,MP83623,MP83622,MP83621,MP83620,MP83636 |
| ICV Standard  | MP83629                                                                 |
| CCV Standard  | MP83632                                                                 |
| ICSA Standard | MP83630,MP83631                                                         |
| CRI Standard  |                                                                         |
| LCS Standard  | MP83669                                                                 |
| Chk Standard  | MP83635,MP83634                                                         |

|    |        |        |     |                |  |        |    |
|----|--------|--------|-----|----------------|--|--------|----|
| 79 | CCV040 | CCV040 | CCV | 12/21/24 20:54 |  | Jaswal | OK |
| 80 | CCB040 | CCB040 | CCB | 12/21/24 20:56 |  | Jaswal | OK |

ORIGIN ID: BVUA (425) 941-1406  
ATTN: CANDICE SCHWARTZ  
CH2MHILL  
1100 112TH AVE NE  
SUITE 500  
BELLEVUE, WA 98004  
UNITED STATES US

SHIP DATE: 09DEC24  
ACTWGT: 43.00 LB  
CAD: 105505917MMET4535  
DIMS: 24x14x14 IN  
BILL SENDER

Cooler 7

TO MOHAMMAD AHMED

ALLIANCE TECHNICAL (CLP LAB)  
284 SHEFFIELD STREET MOUNTAINSIDE

MOUNTAINSIDE NJ 07092

(908) 728-3151  
INV: REF: D3656100.A.PN.ODC.01.6-2  
PO: ASARCO/E. GRIFFITHS  
DEPT:

12-10-24  
18:15  
26-  
58CJ4/EB78/C6C4



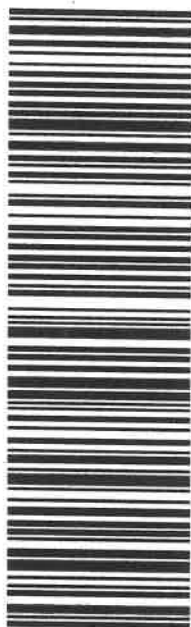
J24024091C81W

TRK#  
0201 7706 1995 1749

TUE - 10 DEC 12:00P  
PRIORITY OVERNIGHT

XE KBCA

07092  
NJ-US EWR



After printing this label:

CONSIGNEE COPY - PLEASE PLACE IN FRONT OF POUCH

1. Fold the printed page along the horizontal line.
2. Place label in shipping pouch and affix it to your shipment.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on [fedex.com](https://www.fedex.com). FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

## Login Summary Report

|                 |                       |                |                       |               |           |
|-----------------|-----------------------|----------------|-----------------------|---------------|-----------|
| Order ID :      | P5249                 | Order Date :   | 12/10/2024 4:15:00 PM | Project Mgr : | Deepak    |
| Client :        | USEPA CLP SMO         | Project :      | 51821                 | Report Type : | USEPA CLP |
| Contact :       | Anita Kapadia         | Receive Date : | 12/10/2024 4:15:00 PM | EDD Type :    | EPA CLP   |
| Date Sign Off : | 12/12/2024 2:46:12 PM |                |                       |               |           |

| Sample ID | Client ID | Matrix | Sampling Date | Test           | Test Group | Method        | TAT Days | Fax Due Date | HC Due Date |
|-----------|-----------|--------|---------------|----------------|------------|---------------|----------|--------------|-------------|
| P5249-03  | MJNKG0S   | Solid  | 12/06/2024    |                |            |               |          |              |             |
|           |           |        |               | Percent Solids |            | Chemtech -SOP | 15       | 12/31/2024   | 12/31/2024  |
|           |           |        |               | Metals CLP4 MS |            | SFAM_MS       | 15       | 12/31/2024   | 12/31/2024  |
| P5249-02  | MJNKG0D   | Solid  | 12/06/2024    |                |            |               |          |              |             |
|           |           |        |               | Percent Solids |            | Chemtech -SOP | 15       | 12/31/2024   | 12/31/2024  |
|           |           |        |               | Metals CLP4 MS |            | SFAM_MS       | 15       | 12/31/2024   | 12/31/2024  |
| P5249-01  | MJNKG0    | Solid  | 12/06/2024    |                |            |               |          |              |             |
|           |           |        |               | Percent Solids |            | Chemtech -SOP | 15       | 12/31/2024   | 12/31/2024  |
|           |           |        |               | Metals CLP4 MS |            | SFAM_MS       | 15       | 12/31/2024   | 12/31/2024  |

# WORKLIST(Hardcopy Internal Chain)

Worklist Name : PB165675

Worklist ID : 186377

Department : Digestion

Date : 12-16-2024 14:24:12

| Sample   | Customer Sample | Matrix | Test           | Preservative | Customer | Raw Sample Storage Location | Collect Date | Method  |
|----------|-----------------|--------|----------------|--------------|----------|-----------------------------|--------------|---------|
| P5248-01 | MJNKD0          | Solid  | Metals CLP4 MS | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | SFAM_MS |
| P5248-02 | MJNKD0D         | Solid  | Metals CLP4 MS | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | SFAM_MS |
| P5248-03 | MJNKD0S         | Solid  | Metals CLP4 MS | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | SFAM_MS |
| P5248-04 | MJNKD1          | Solid  | Metals CLP4 MS | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | SFAM_MS |
| P5248-05 | MJNKE0          | Solid  | Metals CLP4 MS | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | SFAM_MS |
| P5248-06 | MJNKE1          | Solid  | Metals CLP4 MS | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | SFAM_MS |
| P5248-07 | MJNKE2          | Solid  | Metals CLP4 MS | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | SFAM_MS |
| P5248-08 | MJNKF0          | Solid  | Metals CLP4 MS | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | SFAM_MS |
| P5248-09 | MJNKF1          | Solid  | Metals CLP4 MS | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | SFAM_MS |
| P5248-10 | MJNKG1          | Solid  | Metals CLP4 MS | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | SFAM_MS |
| P5248-11 | MJNKG2          | Solid  | Metals CLP4 MS | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | SFAM_MS |
| P5248-12 | MJNLH6          | Solid  | Metals CLP4 MS | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | SFAM_MS |
| P5248-13 | MJNLH7          | Solid  | Metals CLP4 MS | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | SFAM_MS |
| P5248-14 | MJNLH8          | Solid  | Metals CLP4 MS | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | SFAM_MS |
| P5249-01 | MJNKG0          | Solid  | Metals CLP4 MS | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | SFAM_MS |
| P5249-02 | MJNKG0D         | Solid  | Metals CLP4 MS | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | SFAM_MS |
| P5249-03 | MJNKG0S         | Solid  | Metals CLP4 MS | Cool 4 deg C | USEP01   | C32                         | 12/06/2024   | SFAM_MS |

Date/Time 12/16/24 14:35

Raw Sample Received by: SKS. met digestion

Raw Sample Relinquished by: CP (cm)

Date/Time 12/16/24 15:35

Raw Sample Received by: CP (cm)

Raw Sample Relinquished by: SKS. met digestion